INFORMATION TO USERS

While the most advanced technology has been used to photograph and reproduce this manuscript, the quality of the reproduction is heavily dependent upon the quality of the material submitted. For example:

- Manuscript pages may have indistinct print. In such cases, the best available copy has been filmed.

- Manuscripts may not always be complete. In such cases, a note will indicate that it is not possible to obtain missing pages.

- Copyrighted material may have been removed from the manuscript. In such cases, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, and charts) are photographed by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each oversize page is also filmed as one exposure and is available, for an additional charge, as a standard 35mm slide or as a 17"x 23" black and white photographic print.

Most photographs reproduce acceptably on positive microfilm or microfiche but lack the clarity on xerographic copies made from the microfilm. For an additional charge, 35mm slides of 6"x 9" black and white photographic prints are available for any photographs or illustrations that cannot be reproduced satisfactorily by xerography.
PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark ✓.

1. Glossy photographs or pages _____
2. Colored illustrations, paper or print ______
3. Photographs with dark background _____
4. Illustrations are poor copy ______
5. Pages with black marks, not original copy ______
6. Print shows through as text on both sides of page ______
7. Indistinct, broken or small print on several pages ✓
8. Print exceeds margin requirements ______
9. Tightly bound copy with print lost in spine ______
10. Computer printout pages with indistinct print ______
11. Page(s) _______ lacking when material received, and not available from school or author.
12. Page(s) ________ seem to be missing in numbering only as text follows.
13. Two pages numbered ______. Text follows.
14. Curling and wrinkled pages _____
15. Dissertation contains pages with print at a slant, filmed as received ______
16. Other ________________________

University Microfilms International
A PHYSICAL EDUCATION STUDENT TEACHER IN AN ELEMENTARY SCHOOL: A CASE STUDY

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

* * * * *

The Ohio State University
1986

Reading Committee:
Dr. Daryl Siedentop
Dr. Judith Green
Dr. Donald Sanders
Dr. Andrew Taggart

Approved by:

Adviser
School of Health, Physical Education and Recreation
In memory of my father,

R.G.R. Embrey,

and MUF
ACKNOWLEDGMENTS

My appreciation is extended to the subjects of the study: Betty Snow, Bill Stanley, and Michele Felix who must remain masked by pseudonyms. They all gave so much of themselves.

Special thanks are extended to Dr. Daryl Siedentop, Dr. Judith Green, Dr. Donald Sanders, and Dr. Andrew Taggart who guided my graduate studies at The Ohio State University.

I am especially appreciative of the Western Australian College of Advanced Education granting me leave to study overseas.

At The Ohio State University I was fortunate to study with many interesting people. I express special thanks to my "mates" in Physical Education Teacher Education, the "greenies" in Education Policy and Leadership, especially K.O.P.G. who was a "mate" and a "greenie", and to "D".

I acknowledge the efforts of Sarah Boeh for conducting the audit, and Susan Litt for efficient typing of the manuscript.

My deepest appreciation is for Mum, Vicki, and Iain who were prepared to take on many extra responsibilities, and who have always supported me as I pursued my interests.
VITA

April 25, 1945  Born: Coburg, Victoria, Australia

1965  Diploma in Physical Education, University of Melbourne, Australia

1965  Trained Secondary Teachers Certificate (Physical Education), Secondary Teachers College, Melbourne, Australia

1966-1967  Teacher, Hampton High School, Victoria, Australia

1968-1970  Teacher, Euroa High School, Victoria Australia

1971  Teacher, Swanbourne Senior High School, Western Australia

1972  Teacher, Rossmoyne Senior High School, Western Australia

1973  Bachelor of Education (Physical Education), University of Western Australia

1973-1975  Lecturer in Physical Education, State College of Victoria-Rusden

1976-1984  Lecturer in Physical Education, Western Australian College of Advanced Education

1979  Master of Physical Education, University of Western Australia

1983  Master of Education, Murdoch University, Western Australia

1985-1986  Graduate Teaching Associate, School of Health, Physical Education and Recreation, The Ohio State University
VITA (CONTINUED)

Publications


VITA (CONTINUED)

Fields of Study

Major Field: Physical Education
Studies in Teacher Education, Professor Daryl Siedentop
Studies in Ethnography and Sociolinguistics, Professor Judith Green
Studies in Qualitative Research, Professor Donald Sanders
Studies in Supervision and Instruction, Professor Andrew Taggart
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedication</td>
<td>ii</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>iii</td>
</tr>
<tr>
<td>Vita</td>
<td>iv</td>
</tr>
<tr>
<td>List of Tables</td>
<td>xvi</td>
</tr>
<tr>
<td>List of Figures</td>
<td>xvii</td>
</tr>
<tr>
<td><strong>CHAPTER</strong></td>
<td></td>
</tr>
<tr>
<td>I. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Conceptualization of Student Teaching</td>
<td>2</td>
</tr>
<tr>
<td>Definition and description of student teaching</td>
<td>2</td>
</tr>
<tr>
<td>Delineation of student teaching</td>
<td>4</td>
</tr>
<tr>
<td>External boundaries</td>
<td>4</td>
</tr>
<tr>
<td>Internal structures</td>
<td>8</td>
</tr>
<tr>
<td>Methodological Issues in the Study of Student Teaching</td>
<td>11</td>
</tr>
<tr>
<td>Assumptions</td>
<td>16</td>
</tr>
<tr>
<td>The Problem</td>
<td>18</td>
</tr>
<tr>
<td>Overview of the Study</td>
<td>19</td>
</tr>
<tr>
<td>Limitations</td>
<td>20</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>22</td>
</tr>
<tr>
<td>II. Review of Literature</td>
<td>23</td>
</tr>
<tr>
<td>Syntheses</td>
<td>24</td>
</tr>
<tr>
<td>Research on teacher education</td>
<td>24</td>
</tr>
<tr>
<td>Research on teaching -- physical education</td>
<td>26</td>
</tr>
<tr>
<td>Research on teacher education -- physical education</td>
<td>26</td>
</tr>
<tr>
<td>Research and Development Center for Teacher Education at the University of Texas at Austin</td>
<td>27</td>
</tr>
<tr>
<td>The People of Student Teaching</td>
<td>32</td>
</tr>
<tr>
<td>Student Teachers</td>
<td>34</td>
</tr>
<tr>
<td>Personal frame</td>
<td>34</td>
</tr>
<tr>
<td>Curricular and pedagogical frame</td>
<td>37</td>
</tr>
<tr>
<td>Socialization of student teachers</td>
<td>38</td>
</tr>
<tr>
<td>Direct observation of student teachers</td>
<td>40</td>
</tr>
<tr>
<td>Descriptive studies</td>
<td>40</td>
</tr>
<tr>
<td>Intervention studies</td>
<td>43</td>
</tr>
</tbody>
</table>

vii
**TABLE OF CONTENTS (CONTINUED)**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Further evidence</td>
<td>47</td>
</tr>
<tr>
<td>Cooperating Teachers</td>
<td>49</td>
</tr>
<tr>
<td>Personal frame</td>
<td>49</td>
</tr>
<tr>
<td>Curricular and pedagogical frame</td>
<td>49</td>
</tr>
<tr>
<td>University Supervisor</td>
<td>53</td>
</tr>
<tr>
<td>Personal frame</td>
<td>54</td>
</tr>
<tr>
<td>Curricular and pedagogical frame</td>
<td>55</td>
</tr>
<tr>
<td>Dyad</td>
<td>58</td>
</tr>
<tr>
<td>Modeling</td>
<td>58</td>
</tr>
<tr>
<td>Feedback</td>
<td>61</td>
</tr>
<tr>
<td>Expert-novice Relationships</td>
<td>63</td>
</tr>
<tr>
<td>Triad</td>
<td>64</td>
</tr>
<tr>
<td>Summary</td>
<td>65</td>
</tr>
<tr>
<td>The Program of Student Teaching</td>
<td>66</td>
</tr>
<tr>
<td>Research on teacher education</td>
<td>66</td>
</tr>
<tr>
<td>Research on teacher education — physical education</td>
<td>73</td>
</tr>
<tr>
<td>Summary</td>
<td>79</td>
</tr>
<tr>
<td>The Context of Student Teaching</td>
<td>80</td>
</tr>
<tr>
<td>Local Context</td>
<td>80</td>
</tr>
<tr>
<td>Broader Context</td>
<td>86</td>
</tr>
<tr>
<td>Summary</td>
<td>88</td>
</tr>
<tr>
<td>III. Research Methods and Procedures</td>
<td>89</td>
</tr>
<tr>
<td>Observation as a Means of Representing Reality</td>
<td>90</td>
</tr>
<tr>
<td>Observation as Research and Decision-Making</td>
<td>91</td>
</tr>
<tr>
<td>Observation: A Multi-faceted Phenomenon</td>
<td>94</td>
</tr>
<tr>
<td>Issues in Sampling</td>
<td>95</td>
</tr>
<tr>
<td>Case methodology</td>
<td>96</td>
</tr>
<tr>
<td>Gaining entry</td>
<td>101</td>
</tr>
<tr>
<td>Confidentiality</td>
<td>102</td>
</tr>
<tr>
<td>Duration of the study and observation schedule</td>
<td>102</td>
</tr>
<tr>
<td>Observation as a Contextualized Process</td>
<td>107</td>
</tr>
<tr>
<td>Local context embedded in broader levels of context</td>
<td>107</td>
</tr>
<tr>
<td>Historical context of the setting</td>
<td>108</td>
</tr>
<tr>
<td>Historical setting of the event</td>
<td>110</td>
</tr>
<tr>
<td>Context as determined by the research event</td>
<td>111</td>
</tr>
<tr>
<td>Systems for Recording and Storing Observation Data</td>
<td>115</td>
</tr>
<tr>
<td>Original field notes</td>
<td>115</td>
</tr>
<tr>
<td>Audiotapes</td>
<td>116</td>
</tr>
<tr>
<td>Expanded field notes</td>
<td>116</td>
</tr>
</tbody>
</table>
### TABLE OF CONTENTS (CONTINUED)

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photographic records.</td>
<td>118</td>
</tr>
<tr>
<td>Journals.</td>
<td>119</td>
</tr>
<tr>
<td>Documents.</td>
<td>120</td>
</tr>
<tr>
<td>Interviews.</td>
<td>123</td>
</tr>
<tr>
<td>Units of Observation and Data Analysis.</td>
<td>124</td>
</tr>
<tr>
<td>Units of observation.</td>
<td>125</td>
</tr>
<tr>
<td>People.</td>
<td>126</td>
</tr>
<tr>
<td>Betty.</td>
<td>126</td>
</tr>
<tr>
<td>Bill.</td>
<td>126</td>
</tr>
<tr>
<td>Michele.</td>
<td>127</td>
</tr>
<tr>
<td>Dyad.</td>
<td>127</td>
</tr>
<tr>
<td>Triad.</td>
<td>127</td>
</tr>
<tr>
<td>Dr. Thomas.</td>
<td>128</td>
</tr>
<tr>
<td>Program.</td>
<td>128</td>
</tr>
<tr>
<td>Subject matter units.</td>
<td>128</td>
</tr>
<tr>
<td>Weeks</td>
<td>128</td>
</tr>
<tr>
<td>Lessons</td>
<td>129</td>
</tr>
<tr>
<td>Activities.</td>
<td>129</td>
</tr>
<tr>
<td>Tasks</td>
<td>129</td>
</tr>
<tr>
<td>Data Analysis.</td>
<td>129</td>
</tr>
<tr>
<td>Defining categories</td>
<td>130</td>
</tr>
<tr>
<td>Single written records.</td>
<td>131</td>
</tr>
<tr>
<td>Time matrices, and role-by-time matrices.</td>
<td>132</td>
</tr>
<tr>
<td>Memos</td>
<td>135</td>
</tr>
<tr>
<td>Repetition of the analyses steps.</td>
<td>126</td>
</tr>
<tr>
<td>Sources of Error.</td>
<td>136</td>
</tr>
<tr>
<td>Prolonged and continuous presence in the school.</td>
<td>138</td>
</tr>
<tr>
<td>Multiple data sources and methods of data collection.</td>
<td>139</td>
</tr>
<tr>
<td>Triangulation</td>
<td>139</td>
</tr>
<tr>
<td>Member checks</td>
<td>140</td>
</tr>
<tr>
<td>Peer debriefings.</td>
<td>141</td>
</tr>
<tr>
<td>Memos</td>
<td>142</td>
</tr>
<tr>
<td>Reflexive journal.</td>
<td>142</td>
</tr>
<tr>
<td>Audit Trail</td>
<td>142</td>
</tr>
<tr>
<td>Summary</td>
<td>143</td>
</tr>
<tr>
<td>IV. Findings</td>
<td>145</td>
</tr>
<tr>
<td>Frame of Reference.</td>
<td>147</td>
</tr>
<tr>
<td>Betty Snow.</td>
<td>149</td>
</tr>
<tr>
<td>Curricular and Pedagogical Domain</td>
<td>152</td>
</tr>
<tr>
<td>Student</td>
<td>152</td>
</tr>
</tbody>
</table>

ix
**TABLE OF CONTENTS (CONTINUED)**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Education Teacher Education</td>
<td>152</td>
</tr>
<tr>
<td>Basic Education Requirements</td>
<td>154</td>
</tr>
<tr>
<td>Coach</td>
<td>156</td>
</tr>
<tr>
<td>Pre-student teaching</td>
<td>157</td>
</tr>
<tr>
<td>During student teaching</td>
<td>157</td>
</tr>
<tr>
<td>Post-student teaching</td>
<td>158</td>
</tr>
<tr>
<td>Job hunter</td>
<td>158</td>
</tr>
<tr>
<td>Description of a good teacher</td>
<td>160</td>
</tr>
<tr>
<td>Personal Domain</td>
<td>161</td>
</tr>
<tr>
<td>Athlete</td>
<td>161</td>
</tr>
<tr>
<td>Basketball</td>
<td>161</td>
</tr>
<tr>
<td>Softball</td>
<td>164</td>
</tr>
<tr>
<td>Family member</td>
<td>164</td>
</tr>
<tr>
<td>Social life</td>
<td>165</td>
</tr>
<tr>
<td>Overlap</td>
<td>165</td>
</tr>
<tr>
<td>Basketball player-student teacher</td>
<td>165</td>
</tr>
<tr>
<td>Softball</td>
<td>170</td>
</tr>
<tr>
<td>&quot;The Slump&quot;</td>
<td>171</td>
</tr>
<tr>
<td>Summary</td>
<td>172</td>
</tr>
<tr>
<td>Bill Stanley</td>
<td>173</td>
</tr>
<tr>
<td>Curricular and Pedagogical Domain</td>
<td>175</td>
</tr>
<tr>
<td>Teacher</td>
<td>175</td>
</tr>
<tr>
<td>Cooperating teacher</td>
<td>178</td>
</tr>
<tr>
<td>University faculty member</td>
<td>180</td>
</tr>
<tr>
<td>School district employee</td>
<td>180</td>
</tr>
<tr>
<td>Professional developer</td>
<td>181</td>
</tr>
<tr>
<td>Description of a good teacher</td>
<td>182</td>
</tr>
<tr>
<td>Personal Domain</td>
<td>182</td>
</tr>
<tr>
<td>Athlete</td>
<td>182</td>
</tr>
<tr>
<td>Family member</td>
<td>182</td>
</tr>
<tr>
<td>Community member</td>
<td>183</td>
</tr>
<tr>
<td>Overlap</td>
<td>183</td>
</tr>
<tr>
<td>Summary</td>
<td>184</td>
</tr>
<tr>
<td>Michele Felix</td>
<td>184</td>
</tr>
<tr>
<td>Curricular and Pedagogical Domain</td>
<td>187</td>
</tr>
<tr>
<td>Lecturer</td>
<td>187</td>
</tr>
<tr>
<td>Student</td>
<td>189</td>
</tr>
<tr>
<td>Teacher</td>
<td>189</td>
</tr>
<tr>
<td>Cooperating teacher</td>
<td>189</td>
</tr>
<tr>
<td>University faculty member</td>
<td>189</td>
</tr>
<tr>
<td>Coach</td>
<td>190</td>
</tr>
<tr>
<td>Description of a good teacher</td>
<td>190</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS (CONTINUED)

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Domain</td>
<td>190</td>
</tr>
<tr>
<td>Athlete</td>
<td>191</td>
</tr>
<tr>
<td>Family member</td>
<td>191</td>
</tr>
<tr>
<td>Overlap</td>
<td>191</td>
</tr>
<tr>
<td>Summary</td>
<td>192</td>
</tr>
<tr>
<td>Researcher</td>
<td>193</td>
</tr>
<tr>
<td>Curricular and Pedagogical Domain</td>
<td>195</td>
</tr>
<tr>
<td>Student</td>
<td>195</td>
</tr>
<tr>
<td>Graduate teaching associate</td>
<td>195</td>
</tr>
<tr>
<td>College faculty member, teacher and cooperating teacher</td>
<td>196</td>
</tr>
<tr>
<td>Professional developer</td>
<td>196</td>
</tr>
<tr>
<td>Personal Domain</td>
<td>196</td>
</tr>
<tr>
<td>Athlete</td>
<td>196</td>
</tr>
<tr>
<td>Overlap</td>
<td>197</td>
</tr>
<tr>
<td>Summary</td>
<td>198</td>
</tr>
<tr>
<td>Shared Frames</td>
<td>199</td>
</tr>
<tr>
<td>Context</td>
<td>200</td>
</tr>
<tr>
<td>Tiergarten Elementary School</td>
<td>200</td>
</tr>
<tr>
<td>Physical Education</td>
<td>201</td>
</tr>
<tr>
<td>Schedule</td>
<td>201</td>
</tr>
<tr>
<td>Program</td>
<td>202</td>
</tr>
<tr>
<td>Facilities and equipment</td>
<td>203</td>
</tr>
<tr>
<td>Established structures</td>
<td>206</td>
</tr>
<tr>
<td>School District</td>
<td>206</td>
</tr>
<tr>
<td>The Midwestern University</td>
<td>210</td>
</tr>
<tr>
<td>Summary</td>
<td>211</td>
</tr>
<tr>
<td>The Student Teaching Experience</td>
<td>211</td>
</tr>
<tr>
<td>Student Teaching</td>
<td>212</td>
</tr>
<tr>
<td>Pre-student teaching</td>
<td>213</td>
</tr>
<tr>
<td>Student teaching</td>
<td>214</td>
</tr>
<tr>
<td>Post-student teaching</td>
<td>216</td>
</tr>
<tr>
<td>Student teaching as a learning experience</td>
<td>216</td>
</tr>
<tr>
<td>Not directly involving pupils</td>
<td>221</td>
</tr>
<tr>
<td>Briefing sessions</td>
<td>221</td>
</tr>
<tr>
<td>Conferences</td>
<td>225</td>
</tr>
<tr>
<td>Dyad</td>
<td>225</td>
</tr>
<tr>
<td>Triad</td>
<td>227</td>
</tr>
<tr>
<td>Dr. Thomas</td>
<td>229</td>
</tr>
<tr>
<td>Research</td>
<td>230</td>
</tr>
<tr>
<td>Experiences in which Betty directly studied pupils, teachers and subject matter</td>
<td>230</td>
</tr>
<tr>
<td>Topic</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Passive observer.</td>
<td>230</td>
</tr>
<tr>
<td>Observer participant.</td>
<td>233</td>
</tr>
<tr>
<td>Student Teaching as Co-teaching</td>
<td>235</td>
</tr>
<tr>
<td>Quarterly program and weekly organization</td>
<td>237</td>
</tr>
<tr>
<td>Lessons</td>
<td>239</td>
</tr>
<tr>
<td>Activities</td>
<td>242</td>
</tr>
<tr>
<td>Organizational activities</td>
<td>242</td>
</tr>
<tr>
<td>Instructional activities</td>
<td>243</td>
</tr>
<tr>
<td>Interpersonal activities</td>
<td>243</td>
</tr>
<tr>
<td>Critical elements</td>
<td>249</td>
</tr>
<tr>
<td>Increments in Betty's &quot;instructional duties&quot;</td>
<td>252</td>
</tr>
<tr>
<td>Summary</td>
<td>258</td>
</tr>
<tr>
<td>Learning the Context Already Existing at the School</td>
<td>258</td>
</tr>
<tr>
<td>Pre-student teaching</td>
<td>259</td>
</tr>
<tr>
<td>Student teaching</td>
<td>260</td>
</tr>
<tr>
<td>Week 1</td>
<td>260</td>
</tr>
<tr>
<td>Field days</td>
<td>264</td>
</tr>
<tr>
<td>Cooperating Teacher Teaching the Student Teacher.</td>
<td>268</td>
</tr>
<tr>
<td>Proactive</td>
<td>269</td>
</tr>
<tr>
<td>Interactive</td>
<td>273</td>
</tr>
<tr>
<td>Private</td>
<td>274</td>
</tr>
<tr>
<td>Public</td>
<td>274</td>
</tr>
<tr>
<td>Private-public</td>
<td>275</td>
</tr>
<tr>
<td>Public-private</td>
<td>276</td>
</tr>
<tr>
<td>Reactive</td>
<td>276</td>
</tr>
<tr>
<td>Observations by the Student Teacher During Teaching, and Consequences.</td>
<td>278</td>
</tr>
<tr>
<td>Limitations</td>
<td>279</td>
</tr>
<tr>
<td>Betty's observations during lessons</td>
<td>282</td>
</tr>
<tr>
<td>Instructional</td>
<td>282</td>
</tr>
<tr>
<td>Organizational</td>
<td>283</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>285</td>
</tr>
<tr>
<td>Student Teacher Implementing Advice from the Cooperating Teacher and University Supervisor</td>
<td>291</td>
</tr>
<tr>
<td>Sequence of Task Distribution, Monitoring, and Evaluation</td>
<td>293</td>
</tr>
<tr>
<td>Tasks for Betty as a Student of the Teaching-Learning Process</td>
<td>297</td>
</tr>
<tr>
<td>Tasks for Betty as Co-teacher</td>
<td>299</td>
</tr>
<tr>
<td>Instructional tasks</td>
<td>299</td>
</tr>
<tr>
<td>Unit plan</td>
<td>300</td>
</tr>
<tr>
<td>Lesson plans</td>
<td>301</td>
</tr>
</tbody>
</table>

xii
# TABLE OF CONTENTS (CONTINUED)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palm cards.</td>
<td>302</td>
</tr>
<tr>
<td>Survey the periodicals.</td>
<td>303</td>
</tr>
<tr>
<td>Teach lessons</td>
<td>303</td>
</tr>
<tr>
<td>Voice</td>
<td>304</td>
</tr>
<tr>
<td>Revision of each lesson</td>
<td>305</td>
</tr>
<tr>
<td>Develop a &quot;bag of tricks&quot;</td>
<td>305</td>
</tr>
<tr>
<td>Activity time-waiting time ratio.</td>
<td>306</td>
</tr>
<tr>
<td>Waiting time activities</td>
<td>306</td>
</tr>
<tr>
<td>Brief pupils for field days</td>
<td>307</td>
</tr>
<tr>
<td>Organizational tasks</td>
<td>307</td>
</tr>
<tr>
<td>Setting up and putting away the equipment</td>
<td>308</td>
</tr>
<tr>
<td>Interpersonal tasks</td>
<td>309</td>
</tr>
<tr>
<td>Learn names</td>
<td>312</td>
</tr>
<tr>
<td>Signal for attention</td>
<td>312</td>
</tr>
<tr>
<td>Time out</td>
<td>314</td>
</tr>
<tr>
<td>Division of class into teams</td>
<td>314</td>
</tr>
<tr>
<td>Behavioral interactions</td>
<td>315</td>
</tr>
<tr>
<td>Expectations for pupil behavior</td>
<td>316</td>
</tr>
<tr>
<td>&quot;Don't give anything away&quot;</td>
<td>316</td>
</tr>
<tr>
<td>Transitions-hustles</td>
<td>317</td>
</tr>
<tr>
<td>Summary</td>
<td>319</td>
</tr>
<tr>
<td>Influence of the Context on the Student Teacher</td>
<td>322</td>
</tr>
<tr>
<td>Influence of Betty on the Context</td>
<td>323</td>
</tr>
<tr>
<td>Local context</td>
<td>323</td>
</tr>
<tr>
<td>Broad context</td>
<td>326</td>
</tr>
<tr>
<td>Influence of the Context on Betty</td>
<td>327</td>
</tr>
<tr>
<td>Local context</td>
<td>327</td>
</tr>
<tr>
<td>Broad context</td>
<td>330</td>
</tr>
<tr>
<td>Summary</td>
<td>331</td>
</tr>
<tr>
<td>Outcomes of the Student Teaching Experiences.</td>
<td>332</td>
</tr>
<tr>
<td>&quot;The Slump&quot;.</td>
<td>333</td>
</tr>
<tr>
<td>B-ALT:PE observation data</td>
<td>334</td>
</tr>
<tr>
<td>Descriptive data</td>
<td>336</td>
</tr>
<tr>
<td>Events in the broad context</td>
<td>343</td>
</tr>
<tr>
<td>Reactions to &quot;the slump&quot;</td>
<td>345</td>
</tr>
<tr>
<td>Changed relationships</td>
<td>347</td>
</tr>
<tr>
<td>Frame sharing</td>
<td>347</td>
</tr>
<tr>
<td>Curricular and pedagogical domain</td>
<td>347</td>
</tr>
<tr>
<td>Personal domain</td>
<td>349</td>
</tr>
<tr>
<td>Frame clash</td>
<td>349</td>
</tr>
<tr>
<td>Curricular and pedagogical domain</td>
<td>350</td>
</tr>
<tr>
<td>Researcher's Dilemma</td>
<td>358</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS (CONTINUED)

Summary .......... ........................................ 360

V. Summary, Discussion, and Recommendations .......... 362
  The Conceptualization of Student Teaching .......... 363
  Methodological Issues ................................ 369
  Summary of the Case Study .................................. 370
  Discussion and Recommendations ................................. 377
    "The Slump" ........................................ 379
  People ........................................ 381
    Frame of reference .................................. 381
    Frame sharing .................................... 381
    Frame clash .................................... 382
    "Busy schedule" ................................... 383
    Bipartite student teaching experiences ................. 384
      Betty basketball ................................ 386
  Program ........................................ 389
    Tasks ........................................ 389
    Sameness .................................... 390
    Context .................................... 391
    Bipartite student teaching experiences ................. 391
  Methodological issues .................................... 392
  Postscript ........................................ 394

Bibliography ..................................................... 395

Appendix A Glossary of Terms ................................... 412
Appendix B Basic Academic Learning Time: Physical Education
  Observation (Schedule) .................................... 416
Appendix C Letter to Student Teacher from Researcher ......... 419
Appendix D An Example of the Expanded Fieldnotes ............. 421
Appendix E Extract from Researcher's Journal .................. 443
Appendix F Extract from Student Teacher's Journal ............. 446
Appendix G First and Final Interview Schedules for the
  Student Teacher, Cooperating Teacher, and
  University Supervisor .................................... 449

xiv
<table>
<thead>
<tr>
<th>Appendix</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix H</td>
<td>A Sample of a Single Method Record Used in the Data Analysis</td>
<td>467</td>
</tr>
<tr>
<td>Appendix I</td>
<td>Sample Memo</td>
<td>470</td>
</tr>
<tr>
<td>Appendix J</td>
<td>Eligibility and Responsibilities of Student Teachers, Cooperating Teachers, and University Supervisors of The Midwestern University</td>
<td>473</td>
</tr>
<tr>
<td>Appendix K</td>
<td>Student Teaching Tasks for Physical Education Student Teachers at The Midwestern University</td>
<td>481</td>
</tr>
<tr>
<td>Appendix L</td>
<td>Criteria for Evaluation/Feedback.</td>
<td>484</td>
</tr>
<tr>
<td>Appendix M</td>
<td>Tasks Set for the Student Teacher by the Cooperating Teacher.</td>
<td>487</td>
</tr>
<tr>
<td>Appendix N</td>
<td>Final Evaluation of Student Teacher Performance Completed by the Cooperating Teacher</td>
<td>492</td>
</tr>
<tr>
<td>Appendix O</td>
<td>Physical Education Program for Spring Quarter at Tiergarten Elementary School</td>
<td>497</td>
</tr>
<tr>
<td>Appendix P</td>
<td>Instructional Activities and Subject Matter Foci: Primary Grades</td>
<td>500</td>
</tr>
<tr>
<td>Appendix Q</td>
<td>Cumulative Observation Graph for Student Teaching.</td>
<td>505</td>
</tr>
<tr>
<td>Appendix R</td>
<td>Auditor's Report.</td>
<td>508</td>
</tr>
</tbody>
</table>
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Stages of the Case Study and Related Data Collection and Data Analysis</td>
<td>105</td>
</tr>
<tr>
<td>2.</td>
<td>Role-by-time Matrix for the Intermediate Grades for Week 1 of Student Teaching.</td>
<td>134</td>
</tr>
<tr>
<td>3.</td>
<td>The Morning Schedule for Physical Education Classes at Tiergarten Elementary School, Spring 1986</td>
<td>202</td>
</tr>
<tr>
<td>4.</td>
<td>Student Teacher's Attendance at Tiergarten Elementary School</td>
<td>215</td>
</tr>
<tr>
<td>5.</td>
<td>Distribution of Observation and Teaching Sessions for the Student Teacher</td>
<td>218</td>
</tr>
<tr>
<td>6.</td>
<td>The Program by Weeks for Physical Education for the Intermediate Grades at Tiergarten Elementary School for Spring, 1986</td>
<td>238</td>
</tr>
<tr>
<td>7.</td>
<td>Lessons Taught Each Week by the Student Teacher at Tiergarten Elementary School</td>
<td>240</td>
</tr>
<tr>
<td>8.</td>
<td>Lessons Taught Each Week by the Cooperating Teacher at Tiergarten Elementary School</td>
<td>241</td>
</tr>
<tr>
<td>9.</td>
<td>Role-by-time Matrix for the Intermediate Grades for Week 1 of Student Teaching at Tiergarten</td>
<td>253</td>
</tr>
<tr>
<td>10.</td>
<td>Tasks Undertaken by the Student Teacher as a Student of the Teaching-Learning Process</td>
<td>298</td>
</tr>
<tr>
<td>11.</td>
<td>Instructional Tasks</td>
<td>300</td>
</tr>
<tr>
<td>12.</td>
<td>Organizational Tasks</td>
<td>308</td>
</tr>
<tr>
<td>13.</td>
<td>Interpersonal Tasks: Interacting</td>
<td>310</td>
</tr>
<tr>
<td>14.</td>
<td>Interpersonal Tasks: Communal.</td>
<td>311</td>
</tr>
<tr>
<td>15.</td>
<td>B-AUT:PE Observation Data, and Length of Lessons</td>
<td>335</td>
</tr>
<tr>
<td>16.</td>
<td>Instructional Activities and Subject Matter Foci: Primary Grades.</td>
<td>501</td>
</tr>
</tbody>
</table>

xvi
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A schematic representation of the variables interacting during a student teaching experience.</td>
<td>17</td>
</tr>
<tr>
<td>2.</td>
<td>Frame of Reference of the Student Teacher</td>
<td>151</td>
</tr>
<tr>
<td>3.</td>
<td>Frame of Reference for the Cooperating Teacher</td>
<td>174</td>
</tr>
<tr>
<td>4.</td>
<td>Frame of Reference for the University Supervisor</td>
<td>186</td>
</tr>
<tr>
<td>5.</td>
<td>Frame of Reference for the Researcher</td>
<td>194</td>
</tr>
<tr>
<td>6.</td>
<td>A Schematic Representation of the Physical education Program at Tiergarten Elementary School for Spring Quarter, 1986</td>
<td>236</td>
</tr>
<tr>
<td>7.</td>
<td>The Sequence of Distribution of Tasks to the Student Teacher, Monitoring of the Tasks and Evaluation</td>
<td>295</td>
</tr>
<tr>
<td>8.</td>
<td>A Schematic Representation of Changes in the Teaching Behaviors of the Student Teacher</td>
<td>338</td>
</tr>
<tr>
<td>9.</td>
<td>A Schematic Representation of the Conceptualization of Student Teaching.</td>
<td>364</td>
</tr>
<tr>
<td>10.</td>
<td>A Schematic Representation of the Conceptualization of Student Teaching when the variables are highly interactive</td>
<td>366</td>
</tr>
<tr>
<td>11.</td>
<td>A Schematic Representation of the Conceptualization of Teaching when there is minimal interaction of the variables</td>
<td>367</td>
</tr>
<tr>
<td>12.</td>
<td>Main features of the outdoor facilities at Tiergarten Elementary School</td>
<td>425</td>
</tr>
<tr>
<td>13.</td>
<td>Schema for decision-making.</td>
<td>445</td>
</tr>
</tbody>
</table>
CHAPTER ONE

INTRODUCTION

Typically undergraduates in the final stages of teacher education programs spend an extended period of time in school settings. In many American universities student teachers spend one academic quarter or semester in schools; their counterparts at the Western Australian College of Advanced Education undertake a 12 week Assistant Teacher Program.

Many and varied aspects of the extended undergraduate teacher education period in school settings have been investigated under the rubric of research on teacher education (RTE). Frequently the research has been described as "piecemeal, particularistic" (Koehler, 1985; Zeichner, 1986a), and little is known about the realities experienced by the undergraduates (Locke, 1984).

The "piecemeal, particularistic", incomplete descriptions appear to have stemmed from two interrelated sources: one conceptual, and the other methodological. Since the manner in which a body of knowledge is conceptualized influences what is known about it, and the process by which it is investigated, the conceptualization of student teaching, and an overview of the methodological issues in studying it are presented as a background against which to frame this case study. The purpose of this study was to describe the changes in the teaching behaviors of one
Conceptualization of Student Teaching

The prime conceptual issues are: (a) defining and describing student teaching, and (b) delineating the area of interest to externally bound a manageable body of knowledge, and to internally identify its composite variables and constraining factors. Yet, there is a need to retain a degree of flexibility for the absorption of new knowledge which in turn may restructure the body of knowledge.

Definition and description of student teaching

The extended experience in a school is known by a variety of names among which are student teaching, teaching practice, practicum, field experience, clinical experience, internship, and preservice training. The multiplicity of terms is indicative of the need for a clear conceptualization of the field of interest. The terms student teacher, student teaching, or student teaching experience, will be used throughout this dissertation, and are intended to be inclusive of the other terms unless specifically denoted. The term student will be used to designate people pursuing studies in a tertiary institution. Student teacher is a logical extension of this term. For clarity, learners in elementary and secondary schools will be referred to as pupils. (Other terms with specific meanings in this dissertation are included in the glossary in Appendix A.)
During the student teaching experience the student teacher is usually assigned to, and understudies a "master" or cooperating teacher. The experience begins with considerable observation on the part of the student teacher followed by increasing opportunities to plan and teach lessons. In addition, the student teacher is visited regularly by a university or college supervisor (Dejnozka & Kapel, 1982). The relationship of the student teacher to the cooperating teacher is often known as a dyad, while the presence of a supervisor forms a triad.

Student teaching is intended to serve two closely related purposes. First, it is "an occasion for learning to teach" (Zeichner, 1986a, p. 5). The second purpose is to help the student teacher make the transition from student to teacher with sufficient knowledge and skills to qualify for an undergraduate award, and to meet the certification criteria of the education authority with whom the teacher intends to seek employment. Burlingame (1972) described the transition as being one from "neophyte into mature practitioner" (p. 41). More recently Shulman (1986b) qualified the transition as one "from expert student to novice teacher" (p. 8). Student teaching is thus assumed to be a period of change for the student teacher. There is, however, a lack of consensus about the nature and degree of change.

The literature is replete with claims for the value of student teaching as "a powerful professional intervention" (Griffin, 1983, p. 1). Teachers generally consider student teaching to have been the most useful part of their teacher education course. The
cooperating teacher was portrayed as most influential in determining the teaching behaviors of the student teacher, and the university supervisor as the least influential (Barnes & Edwards, 1984; Copas, 1984; Corbett, 1980; Evans, 1986; Feiman-Nemser & Buchmann, 1983; Griffin, 1983; Griffin & Edwards, 1982; Koehler, 1985, 1986; Locke, 1984; Lortie, 1975; Yee, 1969; Zeichner, 1980, 1986a; Zimpher, deVoss & Nott, 1980).

Some writers (Locke, 1979, 1984; Zeichner, 1980) have cautioned, however, that while student teaching was accorded universal approval by graduates, the rating scales used to attest approval were more relative than absolute, and what teachers were really saying about student teaching was that anything practical would look good after four years in a typical teacher education program. Locke (1979) suggested that the main outcome for the student teacher was the confirmation of career choice. The term "washout" has been used to describe the erosion during student teaching of the skills and knowledge accumulated in the teacher preparation courses preceding student teaching (Dodds, 1985b; Zeichner & Tabachnick, 1985). Tinning (1983) queried whether the main agenda of student teaching was evaluative or diagnostic.

Delineation of student teaching

External boundaries

One way to delineate what is meant by student teaching is to consider and distinguish among differing bodies of educational research. Four bodies of research will be considered: Research on
Teaching (RT), Research on Teacher Education (RTE), Research on Teaching in Physical Education (RT-PE), and Research on Teacher Education in Physical Education (RTE-PE). These four bodies provide a basis for determining the external boundaries of student teaching. Each will be described followed by a discussion of the internal structures of student teaching.

Research on teacher education (RTE) is related to, but not identical with, research on teaching (RT). According to Locke (1984) RTE was a distinct category of educational research that was different from and not included in RT.

Locke clarified the distinction by reference to the experimental model:

For the experimentalist, there is a simple model which will clarify the situation. RT is research in which teacher behaviors are the independent variables and some change in student behavior (learning) is the dependent variable. RTE is research in which some aspect of teacher education is the independent variable and some change in teaching behavior is the dependent variable. Not all designs for RT and RTE are experimental or even quantitative, but the familiar model may help the reader grasp an initial distinction between the two areas of distinction (p. 13).

Locke argued that the distinction was grounded, in part, in the topics of interest to each. This difference was demonstrated in two recent reviews. Shulman (1986a) identified five major RT programs: (a) process-product; (b) academic learning time; (c) pupil cognition and the mediation of teaching; (d) classroom ecology; and (e) teacher cognition and decision making. Koehler (1985) reviewed over 200 RTE studies which she categorized into six groups: (a) studies of the skills, competencies, and attitudes of practicing classroom
teachers that reflect on their preservice teacher education; (b) studies of the skills, competencies, and attitudes of teacher education students that reflect on their present or past education or on the future quality of the teaching workforce; (c) evaluations of teacher education courses, of methods within courses or of complete programs; (d) studies of teacher educators; (e) studies of institutions; and (f) studies of studies and research reviews. Thus, while RT is used in teacher education it does not define the nature of teacher education as reflected in RTE.

Locke (1984) further distinguished between RT and RTE when he argued that knowing how to teach skills to a child was not the same as knowing how to teach a skill to an adult. In other words, he argued for approaches to teacher education grounded in knowledge about adult learners not RT.

Locke further distinguished between two levels of teacher education, and hence RTE: preservice, and inservice education. Preservice education "includes all of the operations used to prepare individuals for entry into a teaching career" (Locke, 1984, p. 13). Inservice education "includes all of the operations used to continue the education of teachers after they are certified for teaching and employed in a professional position" (Locke, 1984, p. 13). More recently, Hord, O'Neal and Smith (1985) depicted teacher education as a continuum with three phases — preservice, induction, and inservice. In view of the accumulating evidence which suggests that induction has its own peculiarities which are both similar too and
different from the other phases of the continuum, RTE is probably best considered as at least a three phase continuum rather than two levels.

The identification of the place of student teaching in the teacher education continuum does not complete the delineation and conceptualization. Preservice teacher education is also a continuum beginning with early field experiences -- the practica occurring in the early stages of undergraduate teacher education, and student teaching -- the prolonged practica occurring towards the end of undergraduate teacher education which may, or may not, be preceded by preservice practica (Locke, 1984). Further complexity stems from the fact that institutional variations in practica are as diverse as the institutions themselves.

The conceptualization of teacher education reflected in RTE must also take account of generic and subject matter specific components. A reality of education is the designation of subject matter areas as "special". Physical education in schools is generally staffed by specialist teachers, and taught in special settings such as the gymnasium, swimming pool, and playing field. Physical education student teachers (or any specialist teachers) ought to be prepared in both generic and subject matter specific knowledge and pedagogical skills. Thus, there is a further delineation of RT to RT-PE, research on teaching physical education, and RTE, to RTE-PE, research on teacher education in physical education (Locke, 1984).
RT-PE and RTE-PE tended to have their origins in RT and RTE "with a time lag of five to ten years" (Locke, 1984, p. 20). For example, academic learning time in physical education, ALT-PE, had its origins in the Beginning Teacher Evaluation Studies, and CAFIAS was Cheffers' Adaptation of Flanders Interaction Analysis System.

Furthermore, all four areas have individually, or collectively, derived some of their theories from the broader social sciences initially in psychology, and more recently in sociology, anthropology, history, philosophy, and linguistics. A prime example in student teaching has been the application of theories of occupational, or professional, socialization utilized in RTE (Tabachnick & Zeichner, 1984; Zeichner & Tabachnick, 1985) and RTE-PE (Lawson, 1983a, 1983b, 1986; Steen, 1985). Generally, however, RTE-PE has been atheoretical (Locke, 1984).

In summary, there are four broad areas -- RT, RTE, RT-PE, and RTE-PE -- which have to be delineated in order to conceptualize the external boundaries of student teaching. RTE and RTE-PE both have preservice, induction, and inservice components with preservice teacher education being further defined as early field experiences, and student teaching. Any or all of these areas and components may utilize theories derived in the broader social sciences.

**Internal structures**

Attempts to conceptualize the internal structure of RTE and RTE-PE are as problematic as the attempts at external configurations. Logic suggests that the basic function of RTE and
RTE-PE should be to establish a body of knowledge from which program content is drawn to equip student teachers with the findings of RT and RT-PE. Koehler (1985) has argued that such a conceptualization, coupled with the conceptualization of teacher education as preparation for change, was problematic. In general, insufficient account has been taken of the impact of the student teacher on ecology of the classroom (Doyle, 1977; and Feiman-Nemser & Buchmann, 1983). RT has focused upon the experienced teacher without detailed attention by RTE to the steps necessary to progress from novice to experienced teacher (Koehler, 1985).

Reviews by Griffin (1982), Locke (1984), and Ianier and Little (1986) have attempted to look within student teaching. Griffin (1982) led a major research project on student teaching undertaken by the Research and Development Center for Teacher Education at the University of Texas at Austin (R&DCTE) which identified four elements: (a) the participants in the practice of student teaching, (b) the interactions of those participants, (c) the contexts in which student teaching takes place, and (d) anticipated or desired outcomes of the student teaching experience.

In his RTE-PE monograph Locke (1984) inductively derived a model from matrices used previously by Dunkin and Biddle (1974), and Hall (in Locke, 1984). This model essentially attempted to group Dunkin and Biddle's presage, context, process, and product variables with each other, and with research in the investigation and management of the knowledge base, change in the program elements,
induction in the early years of teaching, and inservice teacher education in later years.

Most recently Lanier and Little (1986) have revised Schwab's heuristic of the "commonplace of teaching" to review RTE under four broad headings: teachers, students, curriculum, and milieu.

Thus, the consistent threads in the internal structures of RTE and RTE-PE appear to be people, program, and context, and their interactions. In turn each of these may also be conceptualized in different ways as in the people who form either a dyad or triad.

Within the program Locke (1985) identified two components: process for teaching learners how to learn; and content or the subject matter to be taught. However, Shulman (1986b) suggested that the process-content relationship has become somewhat asymmetrical with the focus upon process in the past two decades. He proposed to remedy the imbalance through case studies of teacher knowledge particularly content knowledge per se, pedagogical content knowledge, and curricular knowledge, programs designed for teaching particular subjects and topics at given levels.

Finally, the context of student teaching has two major dimensions: local, the classroom; and broad, the layers of organizations surrounding the people and program such as the school, school district, university, and community. Researchers of differing philosophical stances, disagree as to whether the context exists when the teacher and pupils arrive at the classroom door (Doyle, 1986a), or it is created and changed by means of classroom discourse (Cazden, 1986). Both stances agree that context is more
than a physical setting, it has interactive components — people with people, and people with physical settings.

Methodological Issues in the Study of Student Teaching

In his synthesis of RTE-PE, Locke (1984) found that student teaching was the predominant research activity between 1960 and 1981. He considered:

It is amazing, therefore, to discover that the literature reveals very little about the realities of student teaching as they are experienced by the participants (p. 28).

In view of the complexity encountered when attempting to conceptualize student teaching in RTE and RTE-PE and to etch in the relationship with RT and RT-PE, it is not surprising to discover that an array of research methodologies were used to arrive at the "piecemeal, particularistic" descriptions of student teaching, and hence reveal little about the realities of student teaching as they are experienced by the participants.

Historically, quantitative research utilizing psychometric designs with specific isolated variables was the modus operandi in RTE and RTE-PE. Qualitative research using the tools of ethnography has, however, made steady inroads. The traditional barriers between the two modes have yielded under the need to take account of "what is out there." Mixed paradigms have been employed (Griffin, Barnes, Hughes, O'Neal, Defino, Edwards & Hukill, 1983; Tousignant, 1982; and Tinning, 1983) but the three-way debate: quantitative-qualitative-mixed, has often given more attention to the methods of
the paradigms than epistemological differences between them (Smith & Heshesuis, 1986).

The field often appears to be more attuned to methodological issues without adequately conceptualizing student teaching as if solving methodological problems will automatically solve the conceptual issues. If, as suggested above, the student teaching is complex in terms of the interaction of the variables and their components, then no single method is adequate to capture the complexity. The key is to match the method with the conceptualization and the questions being asked.

An exemplary study of student teachers which began with conceptualization of the complexities of people, programs, and contexts was undertaken by the Research and Development Center for Teacher Education at the University of Texas at Austin (Griffin et al., 1983) using a mixed paradigm. Over the course of a semester quantitative and qualitative data were collected regularly but intermittently on members of student teaching triads as they interacted with each other in the embedded contexts of schools and universities. The quantitative data included repeated measures of psychological constructs such as empathy, teacher concerns, and expectations at the beginning, middle and end of the semester. Griffin et al. found evidence to support student teaching as a period of change in only three of the thirteen personal and professional constructs: a decrease in teacher concerns, increased flexibility, and a trend toward increased conservatism regarding educational philosophy. The qualitative data came from journals,
interviews, and conferences, and showed student teaching as an experience seen by the participants in interpersonal rather than professional terms. Overall, Griffin et al. concluded from the perspective of a research team outside the student teaching experience:

that the student teaching experience as displayed in the study sites was in some conceptual disarray, suffered from an inadequate knowledge base, and tended to be rooted in beliefs about positive interpersonal relationships at the expense of disciplined and systematic demonstration and refinement of teaching knowledge and skills (p. 1).

The qualitative data collected by Griffin et al. facilitated secondary analysis of intensive case studies from which Edwards (1982) further described student teaching:

as an idiosyncratic experience with activities determined to a large degree by the characteristics and craft knowledge of the participants, and a technological training experience with activities determined by a rigidly generalizable set of competencies which the student teacher is expected to demonstrate at the end of the training period. This reinforces the idea that the preservice program itself is "job training" on one hand and preparation for the mission of "educating young people." Expectations, satisfactions, perceptions, and evaluations appear to be related to the resolution of conflicts between the two sides (p. 84).

The study was important because it was the first to subject student teaching to rigorous scrutiny. The data collected by Griffin et al. (1983) allowed them to describe a "typical" student teacher and generic variables. Subject matter specialist student teachers such as physical educators were not included in the study. However, despite the mixed paradigm, Griffin et al. expressed doubts about the power and appropriateness of their research tools to elicit more details. One shortcoming was the sparseness of
observation data. The student teachers and cooperating teachers were observed teaching three or four times. Observations were limited to descriptions of generic teaching skills. Almost continual presence of the cooperating teachers hampered observations of student teachers alone with classes.

There is increasing support for direct observation as the fundamental data collection method in student teaching (Copeland, 1978, 1979, 1980; Doyle, 1979a, 1983; Locke, 1984, 1986; Siedentop, 1981a, 1981b, 1983b; Zeichner, 1980, 1984, 1986a). Siedentop (1983a) considered that the most useful way to define teaching per se was by reference to what happened to the pupils being taught. He argued that for important characteristics, qualities, or elements of teacher or pupil performance to be useful as educational goals, they must be recast in behavioral terms, that is, what people were observed to do. By inference, yet heeding Locke's (1984) caution of equating RT and RTE, teacher education ought to be defined by observation of the student teacher, and the pupils taught by her or him.

Observation as method and inquiry for research in education settings takes into account the nature of the phenomenon under investigation in the determination of the units of data collection and analysis (Evertson & Green, 1986). Direct observation of student teachers has been consistently called for by Copeland (1978, 1979, 1980) and Zeichner (1980, 1984, 1986) so RTE may take account of "what is out there." Copeland and Zeichner along with Doyle (1977, 1979a, 1979b, 1981, 1983, 1984, 1986a) advocated an
ecological approach to RT and RTE and claimed a strength of their methodology was the utilization of natural units of classroom behavior, principally activities and tasks, for data collection and analysis. Evertson and Green (1986) described a natural unit as a phenomenon that is perceived as real by the members of a particular social group or culture.

In the foreseeable future it does not appear likely that RTE-PE, which historically has been the province of graduate students (Locke, 1984), will be able to attract sufficient funds to replicate the study by Griffin et al. (1983), or to conduct large scale observational studies to determine "what is out there" in the gymnasium. Thus, rather than look across and between people, programs, and context in student teaching, an alternative approach is to look within one individual to determine the realities of student teaching as experienced by the student teacher.

The present case study focused upon natural units associated with people (student teacher, cooperating teacher, university supervisor, dyad, triad), program (activities, tasks), and context (local, broad), and their interactions in student teaching through observational research methodologies.

In addition, continuous observation enabled the researcher to investigate issues not previously addressed in RT or RTE-PE. One such issue was commencement of student teaching. RT studies (Emmer, Evertson & Anderson, 1980) have shown that the first days of the school year were critical for pupils in determining the classroom conduct for the remainder of the school year. The first days of
student teaching have not received equivalent attention. Another issue was the behavior of the cooperating teacher as the teacher of the student teacher. The R&DCTE study (Griffin et al., 1983) observed the interactions of the dyad in the classroom, and of student teachers and university supervisors in conferences, but did not elaborate upon the cooperating teacher and university supervisor as teachers of the student teacher.

Assumptions

As argued above the way in which student teaching is conceptualized will influence what can be studied. Therefore, before explaining the problem it is necessary to present the major assumptions underlying the conceptualization of the problem:

1. Changes do occur in the teaching behaviors of a physical education student teacher in an elementary setting, and it is possible to determine them through an observational case study of ten weeks duration.

2. A student teacher is both a student and a teacher. As a student the student teacher is taught by the cooperating teacher and university supervisor. The student teacher must fulfill student obligations that distinguish student teaching from "real" teaching. As a teacher the student teacher interacts with the pupils in the school setting.

3. Student teaching involves the interaction of at least three variables: people, program and context. Schematically they can be represented as shown in Figure 1.
US = University Supervisor
CT = Cooperating Teacher
ST = Student Teacher

Figure 1. A schematic representation of the variables interacting during a student teaching experience.
The Problem

The purpose of this case study was to explore the following question:

— what were the changes in the teaching behaviors of a physical education student teacher over the course of a ten week student teaching experience in an elementary school?

The conceptual framework (outlined further in Chapters 2 and 3) generated a set of subquestions a priori yet allowed for their refinement, and the evolution of further subquestions. Given the interaction of the three main variables of interest — people, program, and context — the subquestions were interrelated but could not be clustered discretely under any of the variables. Hence the subquestions are listed linearly.

1. what did the student teacher engage in during the ten week student teaching experience?
2. at the commencement of the student teaching experience how did the student teacher learn the context already existing in the school?
3. to what extent did the cooperating teacher and/or university supervisor teach the student teacher about the context of teaching in that school?
4. who or what did the student teacher observe during student teaching and what were the consequences?
5. who or what did the student teacher not observe during student teaching and what were the consequences?
6. how and when did the student teacher implement the advice of the cooperating teacher and/or university supervisor?

7. what influence did the context have upon the student teacher and how was the context influenced by the student teacher?

8. what were the outcomes of the student teacher maintaining or changing the context?

Given the conceptual approach an additional subquestion was added as data collection proceeded:

9. who were the members of the triad, and what characteristics did they bring to the student teaching experience?

Overview of the Study

A physical education student teacher was observed each morning during a ten week student teaching experience in an elementary school, and during briefing sessions held on the university campus. The school experience was monitored daily by the cooperating teacher, and a university supervisor visited the student teacher on a weekly basis. The student teacher taught ball handling skills to kindergarten and grade 2 classes, and softball, track and field, and adventure games to grades 4 to 6. In addition, the student teacher assisted with the organization and conduct of five field days.

The researcher was an observer participant who employed observational research methods such as fieldnotes, audiotapes, and photographs. Each member of the triad was formally interviewed
before and after the experience. Records were maintained of informal discussions held with the members of the triad during the student teaching experience. Documents relevant to student teaching such as unit and lesson plans, and handouts from the school and university were obtained. In addition the student teacher and researcher maintained individual reflexive journals.

The data were analyzed through progressive reduction of naturally occurring units of the data into categories developed using Spradley’s (1980) concepts of domain and taxonomic analyses based on semantic relationships. In those subquestions in which the passage of time was a key investigative feature, time-order and role-by-time matrices were constructed based on the principles described by Miles and Huberman (1984). Authenticity of the data was tested by peer debriefing and member checks during and after data collection, triangulation of data sources, and an audit trail (Lincoln & Guba, 1985; Miles & Huberman, 1984).

**Limitations**

This study was limited to a case study of one physical education student teacher with one cooperating teacher and one university supervisor in an elementary school. As Erickson (1986) wrote in his treatise on qualitative research in teaching:

> Every instance of a classroom is seen as its own unique system, which nonetheless displays universal properties of teaching. These properties are manifested in the concrete, however, not the abstract. Such concrete universals must be studied each in its own right. This does not necessarily mean studying classrooms one by one. But it does presume that the discovery of fully specified models of the organization of teaching and learning in a
given classroom must precede the testing of generalization of those models to other classrooms. The paradox is that to achieve valid discoveries of universals one must stay very close to concrete cases (p. 130).

An indepth study of one physical education student teacher was considered the most appropriate means to obtain a concrete description against which the variables portrayed in the conceptualization of student teaching (see Figure 1) could be elucidated as a step towards testing the generalizability of the conceptualization.

The phenomenon itself determined in part the boundaries of the study. First, while student teaching is a period of transition it has predetermined time boundaries set by: (a) The Midwestern University where student teaching occurs in one academic quarter of ten weeks duration; and (b) the physical education program of the school in terms of the number of lessons the student teacher could teach.

Second, the subject matter taught by the student teacher was determined by the school's physical education program, and the physical plant of the school.

Third, while the school pupils were important participants in the study as the recipients of the teaching by the student teacher, their numbers (approximately 570), and the fact that they only participated in physical education for fifty minutes per week, precluded the collection of individual details from them by the researcher. The data collection procedures incorporated the requirements set by the cooperating teacher for the student teacher.
to get to know the pupils such as learning the pupils' first names. That is, the researcher focused on what the student teacher learned about the pupils.

To minimize disruption to the study site yet obtain a holistic description the study was conducted by a single researcher. To reduce the possibilities of researcher bias steps were built into: (a) the data collection such as multiple data sources; and (b) data analysis such as member checks, and an audit trail.

**Significance of the Study**

Student teaching was the predominant research activity in RTE-PE between 1960 and 1981 (Locke, 1984) yet the findings concur with studies in the broader field of RTE which have been described as "piecemeal, particularistic" (Koehler, 1985; Zeichner, 1986a). The way in which student teaching has been conceptualized and the methodologies used to investigate it appear to have contributed significantly to this situation. Therefore an observation case study of one student teacher in an elementary school was proposed to describe the three main variables — people, program, and context — and their interactions to facilitate a more holistic understanding of the phenomenon.
CHAPTER TWO

REVIEW OF LITERATURE

This case study was designed to examine the changes in the teaching behaviors of one student teacher over a ten week student teaching experience. Its historical roots were in the generic fields of RT and RTE, and the physical education specific derivatives of these, RT-PE, and RTE-PE.

There was a vast array of widely dispersed literature of varying quality mixing empirical studies with theorizing and opinions. Fortunately there have been several recent syntheses in both the generic and subject specific fields. To avoid redundancy the review of literature did not fully replicate those syntheses. Rather they were summarized with emphasis upon their conceptual organization which facilitated an understanding of the complexities of student teaching. A more exhaustive review was undertaken of literature judged from the syntheses to be particularly pertinent to this study, or which was not included in the syntheses usually because they have been published after the syntheses.

Consistent with the history of research in the field, RTE literature is presented before RTE-PE unless chronological order is significant. There is minimal inclusion of RT and RT-PE literature. The syntheses are presented first followed by an overview of the large scale study of student teaching conducted by
the Research and Development Center for Teacher Education at the University of Texas at Austin (R&DTCE), and then each of the major organizing themes of the review — people, program, and context — each of which has its own internal organization. Discrete bounding of the sections of the literature review was confounded, however, by the degree of overlap of topics in the original sources.

**Syntheses**

**Research on teacher education**

Hersch, Hull, and Leighton (1982) compiled a comprehensive review of the history, programs, training elements, concerns and attitudes, and socialization of student teaching. They concluded that the research to 1982 presented an ambiguous case for the value of student teaching as the primary teacher training activity but noted that a blend of scientific testing and social anthropological research promised to bring greater understanding of student teaching as a multi-dimensional process.

RT has been drawn together by Wittrock (1986) in the Handbook of Research on Teaching (3rd edition). It was, however, not limited to RT, and the chapter by Lanier and Little (1986) was devoted to RTE. They revised Schwab's heuristic of the "commonplace of teaching" to structure their review of RTE on four commonplaces.

For teaching to occur, someone (a teacher) must be teaching someone (a student) about something (a curriculum) at some place and point in time (a milieu). In teacher education, the teachers of teachers represent a diversity of roles and backgrounds — college professors, graduate assistants, public school supervisors, and others. The students are adults who are either prospective or practicing teachers. The curriculum of
teacher education includes studies in general education, subject matter specialities, and pedagogy. The milieu or context of teacher education includes the general society, the university, the school district, the school, and various other contextual settings that affect teacher education in America (p. 258).

Lanier and Little then reviewed the literature for each of the common-places. Most of the discussion of student teachers centered upon the low social status and academic demographic details of American student teachers. Specifically with the regard to the curriculum of the field experiences, Lanier and Little reported that RTE continued to be engaged in the ongoing debate as to whether field experience should focus upon preparation of student teachers as group managers, or intellectual leaders. Lanier and Little's personal stance would appear to favor the latter but they concluded by acknowledging that more research was necessary to determine how the limitations of the field experience can be overcome to develop consistency with the liberal-professional approach to RTE. In view of the paucity of large scale studies of student teaching it was surprising that Lanier and Little gave only minimal attention to the Texas R&DCTE study.

Katz and Raths (1984), and Raths and Katz (1986) have drawn together two collections of papers in RTE in Advances in Teacher Education (Volumes 1 and 2) in an endeavor to support the advancement of inquiry into teacher education. The second volume in particular addresses issues in student teaching such as field experiences. Several of the papers have been published elsewhere such as Peiman-Nemser and Buchmann (1983), and Griffin (1982).
Research on teaching — physical education

The confidence of physical educators with the growing bodies of knowledge in both the generic and subject specific fields has been demonstrated in two types of syntheses. First, RT findings have been synthesized in texts. Siedentop (1983a) authored a text, Developing Teaching Skills in Physical Education (2nd edition), which serves as the basis of program content in many physical education teacher preparation courses around the world (Locke, 1985). Second, the research base itself has been collated. Pieron (1986) has recently released details of a computer data base collating observation studies of RT-PE.

Research on teacher education — physical education

Locke (1984) drafted a series of reviews of RTE-PE which culminated in the monograph, Research on Teaching Teachers: Where are We Now? For the monograph Locke inductively derived a model from matrices previously used by Dunkin and Biddle (1974), in their classic, The Study of Teaching, and Hall (in Locke, 1984). This model essentially attempted to group Dunkin and Biddle's presage, context, process, and product variables with each other, and with research in the investigation and management of the knowledge base, change in program elements, induction in the early years of teaching, and inservice teacher education in later years. Locke reviewed the literature under each of these headings for both RTE and RTE-PE. For the period 1960 to 1981, Locke found student teaching to be the area of greatest research activity in RTE-PE but
few studies provided systematic descriptions of student teaching as it is experienced by the participants. A variety of perspectives had addressed discrete personological variables, the acquisition of technical skills through the principles of applied behavior analysis, and the supervision process.

The importance of these syntheses lies not only in the ready access they provide to the vast array of literature but in the conceptualizations of models for the organization of the body of knowledge in both the generic and subject specific fields. Such conceptualizations were descriptive aggregations of isolated particulars.

Research and Development Center for Teacher Education at the University of Texas at Austin

The most comprehensive study of student teaching was undertaken by the Research and Development Center for Teacher Education at the University of Texas at Austin between 1981 and 1983. It should be noted that in this study went under the acronym on RITE — Research in Teacher Education. To minimize confusion with the acronyms preferred in physical education (RTE, RTE-PE), the study from the Research and Development Center for Teacher Education was identified by the acronym R&DCTE in this dissertation. Further, reference was made to aspects of the study throughout the dissertation, and the historical and research details are presented here as background information.

The origin of the R&DCTE study was a working conference held in 1981 which was attended by 29 participants from varied educational
and geographical backgrounds. They began with a review of the historical development of student teaching (Hughes, 1982), followed by consideration of the role of the school (Dillon-Peterson, 1982), the cooperating teacher (Ryan, 1982), the dichotomy of student teacher as technician versus student teacher as person (Greene, 1982), and potential research approaches (Hays, 1982). In his summary of the working conference Griffin (1982) identified four major categories of issues: (a) the participants in the practice of student teaching, (b) the interactions of those participants, (c) the contexts in which student teaching took place, and (d) the anticipated or desired outcomes of the student teaching experience. The program, or curriculum, of student teaching was not identified as a separate issue. Rather it was subsumed under the discussion of the outcomes of student teaching. While program and outcomes would appear to maintain a dialectical relationship, the conferees tended to favor a program founded in RT with the criteria of teacher effectiveness to become the principal outcomes of student teaching.

Griffin, Hughes, Defino and Barnes (1981) undertook the requisite review of literature which they found to be "nonempirical, craft-oriented, and scattered widely across different perspectives and topic areas" (p. 44). They were, however, able to conceptualize a model with the student teaching triad embedded in several overlapping contexts. From the model they identified the "unanswered and uninvestigated research questions" (p. 44) concerned with psychological constructs held by student teachers and
cooperating teachers; the roles of the members of the triad; and the contextual influences.

A multi-site, multi-method 18-week research project emanated from the conference and review (Griffin, Barnes, Hughes, O’Neal, Defino, Edwards, & Hukill, 1983). Ninety-three student teachers and 17 university supervisors from two universities were studied with 88 cooperating teachers in 35 elementary and secondary schools. The participants were divided into a large general sample, and smaller groups which were involved in intensive studies of different aspects of the project. Both quantitative and qualitative data were collected. Quantitative data were gathered on a variety of questionnaires self-administered by the subjects on several occasions during the semester. Among the constructs addressed in the questionnaires were empathy, locus of control, flexibility, educational preference in terms of traditional to progressive, teacher concerns, self-esteem, conceptual level, cognitive style, the work of teaching, and vocabulary. Outcome measures obtained were satisfaction, performance ratings of self and others, and the degree to which expectations were met by the student teaching experience. Qualitative data included journals written by each of the participants, three interviews with each participant, and observation of both the cooperating teachers and student teachers engaged in teaching pupils. Cooperating teachers were observed a minimum of three times, and student teachers four times. The criteria Griffin et al. (1981) set for themselves of a project that
was "conceptually strong and methodologically apt" (p. 133) appeared to have been met.

The results of the project were published in two forms: (a) an integrated final report (Griffin et al., 1983), and (b) separate indepth reports of each aspect of the study (for example, Barnes & Edwards, 1984; Defino, Barnes & O'Neal, 1984; Edwards, 1982; Griffin, 1983; Hughes & Hukill, 1982; O'Neal, 1983).

Since the project was descriptive of the prevailing practices it was not surprising, therefore, that student teaching was found to be "problematic" (Griffin, 1983, p. 15). In particular:

1. recent research in RT had little impact upon the policies and practices of student teaching.

2. the participants based their actions on care of the individual rather than a set of carefully articulated standards for professional practice.

3. the participants had little awareness of the policies, expectations, purposes, and desirable practices of the sponsoring institution.

4. there was only minimal evidence of substantive programmatic and ideological links between student teaching and the broader preservice teacher education courses.

5. policy, practice, and personal links between the university and public education setting were sparse.
6. student teaching, like teaching per se, was characterized by an isolation of its basic units, that is, dyads were isolated from each other.

7. As a "gatekeeping" or sorting mechanism, student teaching appeared to function minimally. Few student teachers were deemed unsatisfactory candidates for their undergraduate award, or for certification to teach.

The project proposal contextualized student teaching within its educational setting, and contained an organizational model. There were voids in final descriptions. Among the issues requiring further details were the relationship of student teaching to the total life of the participants, the activities actually taught by student teachers, the behaviors of the cooperating teacher as a teacher of the student teacher, how the student teacher became established in the student teaching school, the impact of the student teacher upon the school, and a time frame for when and how the student teacher made the transition from student to teacher. These gaps may have persisted because of the methodological constraints imposed by a large scale study, or by the nature of the reporting process.

The Research and Development Center for Teacher Education certainly began to plug some of the gaps in the knowledge base about RIE. The termination of its funding in 1986 was a blow not only to the incumbents themselves but to all concerned with teacher education.
The People of Student Teaching

The natural people units of student teaching are the: (a) student teacher, cooperating teacher, and university supervisor; (b) the dyad of the student teacher and cooperating teacher who are generally in direct continuous contact for the duration of the experience; and (c) the triad formed during the intermittent visits of the university supervisor. There was inevitable overlap in the literature when one or more studies had multiple foci, and incorporated program and context as well.

The dominant theme in the literature concerning student teachers was socialization into the role of teacher which occurred in two stages: (a) before entry into a formal course of teacher preparation; and (b) during the formal course of teacher preparation. The first stage may be referred to as anticipatory socialization, or latent culture (Tabachnick & Zeichner, 1984), or simply biography. Several theories have been used to explore the second stage, for example, social strategy (Marrs & Templin, 1983; Zeichner & Tabachnick, 1985), pupil control ideology (Stillwell, 1979; Templin, 1979, 1981), reproduction and resistance (Goodman, 1985). Whilst these themes stimulate critical thought about, and investigations into RTE they tend to be devoid of attention to individual characteristics (Zeichner, 1985), and descriptions of overt, observable behavior. Therefore, an alternative organizing schema was sought which would be more inclusive.

In classroom discourse research, Weade and Green (1985) employed frame of reference as a heuristic device to describe what
the teacher and pupils brought to a communicative event. Each frame of reference had two dimensions. The teacher's dimensions were: (a) personal, which included prior knowledge, specific abilities (e.g., cognitive, social, psychomotor, perceptual, and linguistic), experiences, beliefs, and preferences (values); and (b) curricular and pedagogical, which included knowledge, skills, experience, and expectations necessary to perform the work of a teacher. The pupil's dimensions were: (a) personal, with components similar to those listed for the teacher; and (b) student, based on prior experiences in both school and non-school instructional settings, and curricular expectations. Frames of reference were individual, and dynamic. Teachers and pupils may, however, share frames, or their frames may differ, in which case a frame clash occurs. Since an assumption of this case study was that the student teacher was both a student and teacher, frame of reference with personal and curricula, and pedagogical dimensions was therefore chosen as the organizing schema for each member of the triad. Constructing frames of reference also facilitated the inclusion of data from differing research paradigms. Furthermore, the first stage of socialization, biography or latent culture, was considered to be akin to the personal dimension of a frame of reference, and the second stage, professional socialization, akin to the curricular and pedagogical dimension especially for the student teacher.
Student Teachers

Personal frame

Griffin et al. (1981) in their review of literature proceeding the R&DCTE study described the "typical" American student teacher as "a single, Anglo woman in her early 20's" (p. 5). Subsequently, Griffin et al. (1983) reported that student teachers only scored in the fifteenth percentile on a vocabulary test (compared to a midpoint rating for cooperating teachers, and the sixty-third percentile for university supervisors). Ianier and Little (1986) were disturbed by the poor academic ability of American student teachers which placed them in the lowest quartile on measured college student ability.

American College Testing (ACT) scores were obtained by Steen (1985) for physical education majors enrolled in a theory course, and a practical activity course prior to their admission to teacher education. Steen reported that on the average the majors were academically less able than their fellow university students.

In the psychomotor domain Steen assessed the majors as being competent but not outstanding athletes. Most had extensive experience in school and non-school sport but had retired from serious competitive sport prior to entering college. Earls (1981) in a descriptive study found prior, and often concurrent sports participation during teacher education, to have been a powerful influence in the career choices of distinctive physical education teachers.
Physical education student teachers, in addition to being subjected to batteries of psychological and sociological tests, have also been subjected to anthropometrical, physiological, and skill performance tests as predictors of their success in teaching. Miele (1979) was unable to determine which sports skills, if any, were necessary for successful physical educators to possess. Bronlow (1979) was unable to detect any significant differences in observed physical education teaching performance of 29 athletes and 22 non-athletes of either sex. Male athletes scored significantly higher than female athletes in subject matter knowledge and interpersonal relationships, while male non-athletes scored significantly higher than female non-athletes in communication skills.

In his case study of the task system of student teaching, Tinning (1983) found social tasks such as cleaning out the equipment store, playing basketball with the cooperating teacher during breaks between lessons, and behaving appropriately at conferences, to be important in creating favorable attitudes in the cooperating teacher and university supervisor.

Past experience with children was a background characteristic of student teachers that Griffin et al. (1981) found to have been investigated to some extent. The evidence to support it as a major reason for entering teaching was inconclusive. Lanier and Little (1986) suggested that prior experience such as serving as camp counselors, teaching Sunday school, and working as teacher aides,
contributed to nurturant rather than intellectual conceptions of teaching.

Steen's (1985) physical education majors had "a great deal of previous experience in teaching-like and/or coaching-like activities" (p. 108). Male undergraduate physical education majors were found by Riggins (1979) to be more oriented towards coaching than female undergraduates on an attitude inventory discriminating between occupational motivation towards physical education teaching and athletic coaching. Earls (1981) argued that the coaching of athletics may be confused with the teaching of physical education since many role models have dual appointments as teacher and coach.

The literature would tend to suggest that student teachers live in a world populated only by the triad and school pupils. An open ended instrument was specifically designed by Karmos and Jacko (1977) to elicit lists of five people who were influential in the lives of 60 student teachers during the student teaching experience. Not surprisingly the cooperating teacher received priority. College instructors were listed by less than one-third of the student teachers. Ninety percent of the student teachers included at least one nonprofessional person on their list, but approximately one-third of the sample could not complete the full complement of five influential people. Among the reasons given for the choices were personal support (dominated by emotional support) with role development assistance just ahead of assistance with professional skills. Karmos and Jacko summarized the demographic data of age, school level placement, and marital status along with a
statement that most of the student teachers had prior classroom experiences with the same cooperating teacher. No attempt was made to correlate demographic data with the support people, or to extrapolate the amount of contact the student teachers had with the significant others. Karmos and Jacko did comment on the difficulty of equitably quantifying the categories of significant others since some categories such as cooperating teacher had only one possible listing while another such as friends was almost endless.

A question to be pondered upon from Karmos and Jacko's study is the degree to which student teaching altered (or did not alter) the normal lifestyle of student teachers such as meeting with friends, and employment. DeVoss (1979) in a naturalistic study of two student teachers was able to capture considerable details about the family life of his subjects including the impact of a sick child on the attendance of student teacher. The same mother-student teacher also reported rejecting for her own child the discipline techniques employed in the school. Edwards (1982) noted in passing that the need to hold down a job impacted upon the energy level of a student teacher. It also appeared from both of these studies that the researchers knew more about the student teachers than either the cooperating teachers, or university supervisors.

**Curricular and pedagogical frame**

Studies used to construct the curricular and pedagogical frame of a student teacher were drawn from two different sources. The first source addressed socialization of student teachers into the
role of teacher, the second source were studies were those employing direct observation of discrete teaching behaviors.

Socialization of student teachers

In the studies of the socialization of student teachers Lortie was foremost (1975) with his catchphrase "apprenticeship of observation" arguing that 12 to 15 years of schooling could not be erased by three to four years of formal teacher training. Various theories have been advanced to explain this. For example, according to Lacey's model of social strategy (Zeichner and Tabachnick, 1985) student teachers purposefully select ideas and actions to work out the inter-relationships in three distinct strategies: (a) internalized adjustment in which the individual willingly develops into the kind of person the situation demands; (b) strategic compliance in which the individual complies with the authority figure's definitions and constraints of a situation while retaining personal reservations; and (c) strategic redefinition in which the individual attempts to change the range of acceptable behaviors within an institution. Zeichner and Tabachnick found internalized adjustment to be the dominant strategy but they were quick to point out that the subjects in their study had actively participated in the selection of their schools. The adjustment was not simply a passive response but one in which the student teachers complied with institutional norms.

In physical education Marrs and Templin (1983) also employed Lacey's social strategy construct. They found that the student
teachers engaged in social strategizing in various situations at different times with self-directed behavior by the student teachers being the essence of their behavior. In retrospect, Marrs and Templin acknowledged that it would have been useful to have known the anticipatory socialization tendencies of their subjects.

Self-direction may well be established prior to student teaching. The undergraduate physical education majors observed by Steen (1985) in the year prior to the admission to physical education teacher education retained the right to select or reject those parts of the theoretical and practical courses they judged to be consistent/inconsistent with their subjective warrants about the profession even if it put them on a different route from their teacher education instructors.

Control of pupils, and custodial attitudes towards pupils by student teachers have been incorporated in many socialization studies. Stillwell (1979) found both elementary generalist and physical education specialist student teachers had deteriorations in their attitudes towards methodology, discipline, teacher-pupil relationships, and pupils, as assessed by the Minnesota Teacher Attitude Inventory.

The first RTE-PE study to use the socialization model was conducted by Templin (1979, 1981) who combined pupil control ideology psychometric data with ethnographic observations of student teachers. Initially the student teachers rejected the custodial role, along with behaviors learned in their undergraduate program,
but over the course of the student teaching experience they were observed to become more custodial.

In contrast, Silvernail and Costello (1983) did not find student teachers became more punitive, controlling or custodial. Silvernail and Costello suggested that a more appropriate interpretation of their findings might be that the student teachers did not veer away from the opinions they held prior to student teaching. These opinions were more punitive and controlling than accepting and empathic.

**Direct observation of student teachers**

Whilst studies utilizing socialization constructs were less than conclusive in determining positive outcomes from student teaching the second group of studies which addressed observed teaching behaviors were more definitive. There were two broad categories of such studies. The first group were descriptive, while the second group were interventionist.

**Descriptive studies**

The research methodologies in descriptive KTE-PE employed during the past 15 years mirror the emergence of qualitative research tools for acceptable data collection with a movement from what Evertson and Green (1986) would classify as categorical systems to narrative systems. Mawson (1973) recorded the verbal behavior of student teachers with the Verbal Interaction Category System (VICS). In addition, her subjects completed dogmatism rating scales, and attitude inventories. Wearing the dual hats of
researcher and supervisor, Mawson collected data during the third and eighth weeks of student teaching. She found a complete absence of change in the verbal behavior of the student teachers. Templin's (1979) study of pupil control ideology prompted Locke (1979) to suggest that an explanation of Mawson's findings might have been that the physical education teaching environment "demands quick imitation rather than exploration and gradual evolution of a personal repertoire of teaching skills" (p. 8).

An interaction analysis system was also employed by Rankin (1976) to record student teacher and pupil verbal and nonverbal behaviors. His student teachers also completed the Cattell Sixteen Personality Factor Test (16PF) so he could allocate them to submissive or dominant groups. The female student teachers expressed themselves using gestures more than did their male colleagues. Submissive student teachers verbally rejected pupils more frequently than dominant student teachers.

Tinning (1983) employed only fieldnotes of lessons, and audiotapes of conferences to describe the task system of physical education student teaching. He found that changes in the behavior of the student teacher were responsive to monitoring by the university supervisor. In the absence of such monitoring, the student teacher's behavior was primarily a function of the ecology of the gymnasium.

The critical incident technique was used by Schenpp (1983). Twenty physical education student teachers provided details on three occasions during student teaching about: (a) modes of interaction
leading to role satisfaction; and (b) modes of interaction leading to role competence. Summarizing the descriptors generated by the student teachers, Schempp found the student teachers derived satisfaction from their teaching role when the pupils were working, enjoying and asking questions about the activity as deemed appropriate by the student teacher. Role competence was associated with the conformity of the whole class to the student teacher's directions.

Subsequently, Schempp (1985) analyzed 143 incidents to determine how student teachers judged their progress towards becoming a better teacher based on their actual experiences in the gymnasium. Consistent with the previous study, the student teachers described progress when a planned lesson activity was felt to have worked due to the entire class responding with appropriate social behavior. Conversely, student teachers did not consider themselves to be developing as teachers when they gauged an activity not to have worked because the pupils wasted time or behaved inappropriately. Schempp astutely noted that the student teachers did not include pupils' psychomotor performance in the definitions of progress towards becoming a teacher.

A further study by Schempp (1986) found that over a ten week student teaching experience student teachers' beliefs in their responsibility for pupil learning decreased. Schempp found this situation both alarming and insightful. He speculated on the diligence with which student teachers attend to pupil failure arguing that the more responsibility the student teachers accepted
the more effort they would make to establish an active learning environment. Yet, Schenpp was prepared to concede that the student teachers may have held unrealistically high expectations prior to student teaching and what the results showed was the development of a realistic appreciation of the degree of control a teacher could exert over events in the gymnasium.

Critical incident reports were also used by Placek (1983) to obtain conceptions of success in teaching from physical education majors who had been involved in teaching. Successful instances in teaching fell into three categories: (a) pupil enjoyment in class, (b) pupil learning, and (c) high participation levels by the pupils. Like Schenpp (1986), Placek found her majors associated nonsuccess in teaching with circumstances over which they felt they had no control. Approximately one-third of the student teachers blamed themselves for lack of success. Lack of success was also attributed to control and discipline problems. Placek concluded that an absence of success did not equate with nonsuccess or vice versa, and that the student teachers had different definitions of success and nonsuccess from experienced teachers.

Intervention studies

Intervention studies to change the behavior of physical education student teachers have emanated principally from the programmatic supervision research directed by Siedentop at The Ohio State University (Siedentop, 1981b, 1983; Siedentop & Embrey, 1986). The unique feature of this research was the consistent
adherence to the principles of applied behavior analysis. Therefore, the emphasis was upon observable behaviors such as use of student names, positive interactions, and a decrease in teacher managerial behaviors; and upon replicability of findings. The research progressed through 12 doctoral dissertations with the locus of responsibility for behavior change gradually being transferred from the university supervisor (Hughley, 1973; Rife, 1973) to include the cooperating teacher (Boehm, 1974; Hamilton, 1974; Darst, 1975) to student teacher's peers (Dodds, 1975; MacMillan, 1978) to self-monitoring (Dessecker, 1975) and finally to elimination of inefficient, uneconomic visits by the university supervisor (Hutslar, 1977; Cramer, 1978). In addition the student teachers also became responsible for changing the behaviors of their pupils through applied behavior analysis procedures (McKenzie, 1976; Currens, 1977). In summary, results of these studies concluded:

1. Teaching behavior was defined clearly enough that it could be observed reliably.

2. Observations were made reliably by supervisors, cooperating teachers, or student teachers. The observation skill was mastered in training program of three to five hours duration.

3. The teaching performance of student teachers was changed during a ten week student teaching experience.

4. "Packaged" interventions induced the changes typically within the first two teaching sessions after the
intervention indicating that they were not difficult to achieve once the student teacher understood what was expected.

5. Follow-up programming and feedback were beneficial for maintaining intervention induced changes.

6. There was a limit to the number of induced changes, and these should be determined by the members of the triad.

7. Student teachers utilized applied behavior analysis principles themselves during their student teaching.

8. The data based approach to supervision was generally well received by the student teachers.

9. The cooperating teachers responded positively to the data based approach.

Not as widely known, or as extensive in design as The Ohio State University research, was the programmatic research directed by Mancini at Ithaca College (Mancini, Wuest & van der Mars, 1985). They trained their students in systematic classroom observation, principally Cheffers' Adaptation of Flanders' Interaction Analysis System (CAFIAS) which they then employed to analyze videotaped micropeer teaching episodes. Based on the results of eight studies including 210 physical education student teachers the following were advanced as reasons for the inclusion of observation training in undergraduate programs:

1. Each study reported the notion that the teaching behaviors and interaction patterns of preservice physical educators was altered.
2. Each study reported that student teachers praised and accepted their pupils' ideas and efforts more, and made greater use of questioning in their classes, both verbally and nonverbally.

3. The student teachers trained in CAFIAS provided their pupils with more information, whereas student teachers in control groups receiving conventional supervisory feedback gave more directions to their pupils and criticized more.

4. All studies reported more pupil contribution and more pupil initiation, both teacher- and pupil-suggested.

5. Student teachers scored higher on selected teacher effectiveness variables, had more positive attitudes toward teaching, and were more aware of their own teaching behaviors.

6. The combined use of CAFIAS as a feedback tool and videotaping was beneficial to preservice physical education majors.

While some critics would debate the adequacy of categorical observation systems to comprehensively describe classroom events, follow-up studies with the subjects one to four years into their teaching careers indicated a retention of teaching behaviors developed during the training in classroom observation, and more active learning time for their pupils. Furthermore, Mancini et al. have extended the range of instruments used in training to include Academic Learning Time-Physical Education (ALT-PE), and Flow of Teacher Organization Patterns (FOTOP).
Further evidence

Further evidence for the support of changes in selected behaviors of preservice physical educators was presented by Carlisle and Philips (1984), and Agnew-Sweeney and Cheffers (1986).

In an experimental teaching unit (ETU) Carlisle and Philips had physical education majors teach a novel skill to five pupils. The majors were rated six times during the 30 minute ETU on eight enthusiasm variables, instruction time, and monitoring time. Carlisle and Philips concluded that awareness of, and training in enthusiasm behaviors produced positive results in the majors but not the pupils. The artificial nature of the ETU did lead to unusually high activity time. Carlisle and Philips were at a loss to explain the lack of pupil achievement.

Agnew-Sweeney and Cheffers (1986) compared and contrasted the behaviors of undergraduate Human Movement majors in formal on-campus course work and an off-campus residential camp at which the majors had supervisory and teaching responsibilities. It was not, therefore, student teaching in the strictest terms, but was significant in sequencing course work and a practicum. By observation, interviews, and journals marked changes in attitudes towards teaching and feelings of confidence were found to be significant after the camp experience. Reasons advanced for the changes included enjoyment by the majors of the greater responsibility placed on them, feedback from the pupils at the camp
(countercontrol), novelty of the environment, and a more challenging curriculum.

In summary, the curricular and pedagogical frame of student teachers was etched from literature discussing student teaching as a process of socialization into the role of teacher, and from literature describing observable teaching behaviors. The contrast between the two perspectives was stark. The socialization literature tended to be inconclusive in determining the impact of the student teaching experience on the development of teaching behaviors, the observation literature reported positive changes. The difference between the two lay not only in their contrasting philosophical underpinnings but in their approaches to student teaching as an intervention. In the socialization approach, student teaching per se was the intervention, while in the observation literature and particularly the programmatic research at The Ohio State University (Siedentop, 1981b), and Ithaca College (Mancini, Wuest, & van der Mars, 1985) there were essentially two interventions: (a) student teaching per se, and (b) purposive experimental interventions. Siedentop (1986) pointed out that it was insufficient to assume that because teachers were educated in certain teacher preparation programs, they would be able to demonstrate effective teaching. What was needed was continuity of training. The relationship of the teacher preparation program to the school setting will be discussed in the section, Program. The point to be made here is that, unfortunately, for most student teachers student teaching is the intervention, and they do not have
the secondary experimental intervention to operationalize the development of their curricular and pedagogical frame. Hence, the persistence for most student teachers of what they had learned in their "apprenticeship of observation" (Lortie, 1975).

Cooperating Teachers

Kampos and Jacko (1977) found the cooperating teacher to be the most significant person for the student teacher during the student experience giving personal, role, and professional skill support. Yet, there is a dearth of information about cooperating teachers.

Personal frame

Griffin et al. (1981) found little demographic information characterizing either the cooperating teacher or university supervisor. With the higher proportion of women in the teaching profession, especially at the elementary level, women were involved in greater numbers than men in preservice education, and presumably as cooperating teachers.

Curricular and pedagogical frame

Explicit in the definition of cooperating teacher was the term "master" teacher (Dejnozka & Kapel, 1982; T. Ryan, 1982). Among the roles Griffin (1982) listed for the cooperating teacher were "gatekeeper, guide and tutor" (p. 108). Yet, K. Ryan (1982) claimed that in practice the cooperating teacher was drawn from the pool of available teachers rather than carefully selected for educational reasons.
Such a haphazard arrangement has advantages and disadvantages. Among the advantages listed by Dillon-Peterson (1982) were: (a) another pair of hands; (b) new perspectives for the cooperating teacher and pupils; (c) a more analytic approach to teaching; (d) motivation for the cooperating teacher to model excellence; and (e) an opportunity to influence the future directions of the profession. The disadvantages included: (a) time demands; (b) psychological demands; (c) a need for prescriptive and analytic skills not currently in the cooperating teacher's repertoire; (d) reduction in classroom flexibility and spontaneity; and (e) too-high expectations which became stumbling blocks. Dillon-Peterson considered that for most teachers the advantages outweighed the disadvantages but there was an emphasis on practical rather than educational needs.

Prior to the R&DCTE study, Griffin (1982) summarized the issues concerning the cooperating teacher:

1. A well-conceptualized and carefully-rationalized system for identifying, monitoring, and assessing cooperating teachers needed to be formulated, tested and disseminated.

2. The cooperating teacher's status in the student teaching experience needed to be strengthened with particular attention given to deficits in authority, rewards, and collegial interaction.

3. Attention must be given to clarifying the expectations for cooperating teachers' behavior, whether the behaviors were
technical, analytical, imitative, or a combination thereof.

4. There should be systematic attention given to the preparation and training of cooperating teachers for their roles toward the ends of efficiency, effectiveness, and meaningful adaptation of the student teaching experience.

With such a plethora of issues to be addressed any starting point would be likely to be productive. The R&DCTE study paid particular attention to the cooperating teacher. Barnes and Edwards (1984) were unable to quantitatively measure an effective student teaching experience but a more effective experience was distinguished from a less effective one from the qualitative data. A "more effective" experience was defined as one in which the student teacher progressed towards the acquisition of the technical skills of teaching with concomittant development in the ability to judge when to use those skills. Cooperating teachers in the more effective experiences:

1. were more proactive than reactive;
2. were clearer and more specific in their communication, including their feedback to the student teacher;
3. modeled the behaviors, teaching teaching techniques, and attitudes they recommended to the student teachers;
4. exhibited greater consistency between their behaviors and their verbal expressions;
5. were more adaptable and flexible;
6. provided rationales for their actions and suggestions;
7. practiced self-reflection as an active learner; and
8. employed positive, problem-solving approaches in most situations (p. 37).

Copas (1984) developed a set of critical requirements for cooperating teachers from critical incidents supplied by elementary student teachers. She obtained a definition of the work of a cooperating teacher by polling 31 teacher education institutions. The definition chosen to serve as a common reference point for the student teachers was:

The job of the cooperating teacher is to help the student teacher to develop a deep and meaningful concept of teaching, to help the student teacher analyze the many facets of teaching, to provide the student teacher with sources and resources, and to encourage the student teacher's unique teaching behavior (p. 50).

While some terms within the definition such as "a deep and meaningful concept of teaching" appeared to require further the clarification, the student teachers were able to respond to Copas' request for critical incidents. The student teachers specifically had to describe: (a) the classroom situation in which the specific observable behavior occurred; (b) what the cooperating teacher did; (c) what the cooperating teacher was trying to accomplish; (d) state the reaction to his or her behavior; and (e) classify the observable behavior as either effective or ineffective.

Three judges independently extracted the details from the reports. Copas constructed two sets of critical requirements for the cooperating teacher. Each set contained 14 specific behaviors for which the major headings and categories are summarized here.
The critical requirements of the cooperating teachers that affected the student teacher were: (a) orienting behaviors; (b) inducting behaviors; (c) guiding behaviors; (d) reflecting behaviors; (e) cooperating behaviors; and (f) supporting behaviors. The critical requirements for the cooperating teacher that affected the children were: (a) conducting behaviors; (b) responding behaviors; (c) enriching behaviors; (d) involving behaviors; (e) structuring behaviors; (f) enforcing behaviors; and (g) facilitating behaviors.

The lists were particularly interesting for the duality the student teachers expressed of concern of self, and concern for the children. Indirectly the lists served as reminders that the cooperating teacher has at least two roles when a student teacher was present. One role was teaching the children. The other role of teacher educator was suggested by Feiman-Nemser and Buchmann (1983) to be a new role for the teacher and therefore in need of clear delineation.

**University Supervisor**

Generally, student teachers considered the university supervisor to be less influential than the cooperating teacher (Karmos & Jacko, 1977). In contrast to the cooperating teacher, there was considerably more literature related to supervisors and supervision. It encompassed both preservice and inservice teacher education, and fields outside education, and care was therefore needed to delimit the review to university supervision of student
teachers which Koehler (1986) described as "a specialized type of supervision" (p. 1).

Personal frame

Griffin et al. (1981) noted the paucity of demographic information about university supervisors. Some global features of American teacher educators were extracted from the more recent writings of Carter (1984), and Lanier and Little (1986). University teacher educators tended to be males whose familial links were to the lower socioeconomic class. Most had some school teaching experience prior to accepting a university appointment. The same descriptors did not automatically transfer to university supervisors. Koehler (1986) noted in passing that many university supervisors were graduate students whose priorities tended to lie with their studies. The status of university supervisors probably varied considerably between institutions. Lanier and Little (1986) suggested that "those who supervise field work in the schools are probably the only faculty, as a group, who identify themselves as teacher educators" (p. 529). This point would probably be contested by others in colleges of education. While Anderson (1982) claimed "that supervisory work is amongst the highest callings available for educated men and women" (p. 189) it was more likely, as with cooperating teachers, that university supervisors were selected on grounds other than their curricular and pedagogical knowledge and skills.
Curricular and pedagogical frame

In view of the breadth of supervision it was not surprising to find a variety of "job descriptions" for university supervisors which took in varied aspects of their curricular and pedagogical frame.

Zimpher, deVoss and Nott (1980) allocated activities to the university supervisor under the headings of formal and extra-formal. The formal activities included: (a) defining and communicating the purposes and expectations to be fulfilled by the student teacher and cooperating teacher; (b) phasing the student teacher into the classroom's ongoing instructional activity; and (c) evaluating the student teacher and giving feedback. Whilst the first two activities were passively accepted by the cooperating teacher and student teacher, and the evaluative activity gave the university supervisor power and freedom but at the same time caused her or him to "walk a tightrope." The logic of Zimpher et al.'s argument was clear. If the student teacher modeled the cooperating teacher's behavior, and the university supervisor criticized the student teacher then indirectly the university supervisor was criticizing the cooperating teacher. This, of course, was not a situation conducive to the development of collegial relationships. On the other hand the impact of the university supervisor's criticism was tempered by the intermittent nature of his or her visits, and the conviction on the part of both the cooperating teacher and student teacher that the classroom activities were the "real" world of teaching, not the abstract world of the teacher.
education program that the university supervisor represented. The university supervisor's extra-formal activity was to act as a confidante and/or "go-between" for the cooperating teacher and student teacher. Generally, Zimpher et al. portrayed the university supervisor as an outsider. Neither Zimpher et al., or any other literature, contemplated the possibility that at different stages each member of the triad may be an outsider. For example, the university supervisor and cooperating teacher may have worked together before so initially the student teacher is the outsider, or the university supervisor may have taught the student teacher so the cooperating teacher is the outsider. Daily, ongoing contact gives the cooperating teacher and student teacher a degree of familiarity but the extent of it is not known.

O'Neal (1983), reporting on the analysis of conferences between the members of the triad as part of the R&DCTE study, wrote:

With the student teacher, the university supervisor assumed an almost contradictory role of evaluator and caretaker. On one hand they wanted to be the student teacher's "security blanket" and "middleman." On the other hand they knew they must ultimately evaluate this person's work. Their responsibilities to the cooperating teacher included such things as communicating the importance of planning and meeting the needs of the individual student teacher (p. 59).

O'Neal, like Zimpher et al. (1980) found the university supervisor to be more analytic and critical of the student teacher's behavior than the cooperating teacher who tended to be a buffer.

Five characteristics and responsibilities for college of education faculty who direct student teaching were identified by Morris (1983):
(a) establishing and maintaining public relations with off-campus staff; (b) placing student teachers; (c) arriving at final decisions about problems involving student teachers; (d) maintaining permanent records of student teachers and supervising student teachers; and (e) conferring with student teacher applicants (p. 16).

In some institutions teacher educators meeting these five characteristics and responsibilities represent a distinct category in the supervision hierarchy — directors or coordinators of student teachers. Therefore, while the university supervisor may appear to the student teacher and cooperating teacher to have power and freedom, they may in fact be supervisees at times. Anderson (1982) posed the question "Who supervises the supervisors?" (p. 182). The degree of involvement of the university coordinator of student teachers may create a tetrad.

Zinpher et al. (1980) observed that university supervisors challenged the student teachers to be innovative but the student teachers offered many reasons why they could not be. Zinpher et al. suggested this was part of the "gamesmanship" of student teaching. Tinning and Siedentop (1985) countered, however, that it may be in fact part of the classroom ecology. Student teachers must go with "what works" in order to secure pupil cooperation.

To this point in the review of the literature emphasis has been upon the characteristics and responsibilities of the individual members of the triad. The dyad and triad can be separated because different behavior patterns were found in each.
Dyad

Barnes and Edwards (1983), and Koehler (1986) identified modeling and feedback as the main supervisory behaviors but noted little research had been conducted into these.

Modeling

The modeling behaviors of cooperating teachers were examined in a series of studies by Copeland (1975) stemming from the initial failure of student teachers to transfer teaching skills learned in microteaching laboratories to classrooms. Copeland (1977) hypothesized that failure in the first experiment was due to factors in the classroom rather than the teaching skill or the student teacher (hence Copeland's studies were also directly relevant to the context of student teaching). In the second experiment he trained the cooperating teacher and student teacher to use the same skill of "asking probing questions." Transfer from the microteaching laboratory to the classroom occurred when the cooperating teacher was trained but did not occur when the cooperating teacher was not trained. Copeland, though, noted relatively large standard deviations in student teachers in the same treatment groups. Therefore, he hypothesized for the third experiment that not only must the cooperating teacher be trained in the targeted skill to be modeled by the student teacher but the skill must be an established part of the classroom prior to the arrival of the student teacher. The results supported this hypothesis. Copeland's experiments
supported modeling as an effective teacher training behavior when it was ecologically relevant.

In an investigation of the placement of early childhood education student teachers, Becher and Ade (1982) were surprised to find a lack of a strong relationship between the modeling of good practices by the cooperating teacher and the final grade of the student teacher. Among the reasons advanced by Becher and Ade were: (a) student teachers failed to perceive the cooperating teachers as models since they had not been designated as models; and (b) the cooperating teachers were not specifically trained in the use of deliberate modeling. The presence of a good model was not sufficient.

Courts (1984) found student teachers modeled effective teaching behaviors of their cooperating teachers but the analysis provided no significant evidence that ineffective cooperating teacher behaviors were imitated by student teachers. Modeling was independent of gender and selected personality factors.

Modeling was included in the intervention packages used in the applied behavior analysis research with physical education student teachers at The Ohio State University (Siedentop, 1981b, 1983; Siedentop & Embrey, 1986). In a multiple baseline design with two student teachers Rife (1973) himself modeled teaching behaviors to decrease negative feedback to the pupils after they attempted a motor skill. As well as the modeling intervention, the student teachers received feedback including instructions, cueing and reinforcement, and graphic displays. The intervention was
successful in changing the behavior of the student teachers while maintaining appropriate pupil behavior.

Douge (1984) also used packaged interventions with student teachers and cooperating teachers. One package consisted of suggestions, feedback and an appropriate model, while the other contained suggestions and feedback but lacked a model. The appropriate model was accurately imitated by the student teacher, and determined the degree and direction of change in the student teachers' behavior. Modeling was substantially more effective than the conventional written suggestions and verbal feedback from the cooperating teachers.

No attempt has been made to review all the modeling research but a consistent theme was evident. Modeling does occur in student teaching. To be most effective in changing student teacher behavior it must be purposefully planned and incorporated into the teaching role of the cooperating teacher. The limitation appeared to be in the degree of experimental control that was established in classrooms. Douge subjectively noted that:

There were several instances in this study where the intern's behavior changed substantially by "just watching" the model teacher. Obviously there is a need to clarify what constitutes the behavior of "just watching" before more definitive statements can be made about which intervention strategy incorporating modeling, would be the most effective in physical education intern training (p. 170).

Further details about what student teachers learn by observing in classrooms will be addressed in the discussion of context.
Feedback

The daily ongoing contact of the dyad provided the cooperating teacher with considerable and diverse opportunities to give feedback to the student teacher. The supervisory conference represents the most formal presentation of feedback. Such conferences may be mandated by the university. Two forms of conferences have been advanced in the literature: counseling (Mosher & Purpel, 1972) and clinical (Goldhammer, 1969). The latter had a close fit with the current emphasis on the technical skills of teaching and tended to be most frequently recommended. There has, however, been little systematic investigation of conferences in student teaching.

The most thorough analyses of the post-lesson conferences were undertaken by O'Neal (1983), and O'Neal and Edwards (1983) as part of the RDCETE study with the latter focusing on conference in the dyad. Transcripts of 76 audiotapes of the conferences of 20 dyads were analyzed for process and content. In addition case studies were prepared from audiotapes, journal, and interviews of three dyads. The process analysis examined who did the talking, and what type of talk. The cooperating teacher spoke approximately 72 percent of the time leaving the student teacher 28 percent. Of the 14 categories of types of talk the most frequent cooperating teacher talk was reviewing or commenting on the classroom events (37 percent), followed by giving directions about instruction (21 percent). Acknowledgment or endorsement was the less frequent cooperating teacher talk. The student teachers also emphasized the classroom events or student teaching activities (32 percent) with
acknowledgement of cooperating teacher talk in second place (24 percent) followed by describing interests and concerns (19 percent). Evaluative statement were least frequent (4 percent). The content of the conferences focused on teaching (80 percent for the cooperating teacher, 75 percent for the student teacher) and the organization of student teaching such as protocols (18 percent). Most content was situation specific to methods and materials in the cognitive domain. The case studies were consistent with this data. In addition they provided insights into the idiosyncratic nature of student teaching.

People in ongoing contact in a classroom all day do not restrict their interactions to formal conferences. Information was not available to indicate to what extent the cooperating teacher and student interacted outside the conferences, and to what extent informal discussions supplemented the formal conferences. Nor was there any attempt to identify the practical outcomes of the conferences in terms of changes in behaviors following the conferences. The problem also arises as to how many items raised in a conference can be acted upon by the student teacher, and in what order student teachers implement advice given during conferences. Furthermore, there was no mention of permanent records of the conferences maintained by either the cooperating teacher or student teacher except for the journals required by the research team. It did not appear that the dyad had access to the audiotapes.
Expert-novice Relationships

One further topic needs to be briefly mentioned as an extension of modeling and feedback to accurately portray the breadth of the topic. A common descriptor of the cooperating teacher was "master," or expert (Dejnozka & Kapel, 1982; T. Ryan, 1982). Student teaching is a time when the novice student teacher can work in a one-to-one ratio with an expert cooperating teacher. Expert-novice literature has been extensively reviewed in relation to teacher thought processes in cognitive science by Shavelson and Stern (1981), Shavelson (1983, 1985), and Clark and Peterson (1984, 1986). The rationale for comparing and contrasting experts and novices in such activities as lesson planning, and decision-making during lessons, has been proposed as a technique for uncovering the processes associated with expert performance so that these processes can be incorporated into the training of novices (Housner & Griffey, 1984; Griffey & Housner, 1985). Clear differences exist in experienced teachers' knowledge about pupils and classroom events (Clark & Peterson, 1986) but as yet the intervening steps through which a novice must proceed to become experienced have not been uncovered. Koehler (1985) suggested that preparing a student teacher against the criteria of an experience teacher may be a futile exercise since the student teacher must be prepared for the intermediary role of beginning teacher.

In physical education attention has also been directed towards the ability of experienced teachers and student teachers to analyze motor skill performances (Biscan & Hoffman, 1976; Imwold & Hoffman,
1983). Analytic proficiency appeared to be linked with instructional experience (Armstrong, 1986) moderated by a degree of specificity between the skills taught and analyzed. The experimental studies to date have been laboratory based. Further field based studies are needed since ultimately a physical education teacher's ability to give skill feedback in class depends upon his or her ability to correctly analyze movement (Armstrong, 1986).

There is a need to study how the expert, cooperating teacher, teaches the novice, student teacher, thus going beyond just the differences between experts and novices. Research to date has treated experts and novices as independent rather than interacting groups.

**Triad**

The conference is also the most formalized interaction between the members of the triad. Like conferences between the dyad members little is known about it. Perhaps, the most pressing issue is to determine if the triad actually meet in conference together.

O'Neal (1983) analyzed triad conferences using the same processes as O'Neal and Edwards (1983) for the dyad conferences, and obtained consistent results. The student teacher deferred to the cooperating teacher and university supervisor. O'Neal recommended that those supervising student teachers ought to be sensitive to the student teacher's reluctance to participate in conferences, and in particular to consider the student teacher as a naive consumer. There was a need to be explicit in communicating the goals for the
pupils and the philosophy of the chosen mode of instruction, and the expectations of the supervisors. O'Neal queried the carryover value of the feedback which she considered to be specific to the student teaching environment rather than applicable to future work settings. She also suggested that there was a need for the university supervisor and cooperating teacher to coordinate their activities particularly to determine if they were operating at the same level of Fuller's concerns for the student teacher. (Fuller [1969] identified two stages of concern in student teaching. The first was concern for self and survival, and when these were met the student teachers then became concerned for the learning of their pupils.)

**Summary**

The people of student teaching are the student teacher, cooperating teacher, and university supervisor. Frame of reference was used as a heuristic device to determine the personal, and curricular and pedagogical skills and knowledge possessed and used by each person during student teaching. While there was considerable diversity in the studies reviewed, there was an overall paucity of specific details. Modeling and feedback were the principal activities described in the literature for the dyad. The presence of good models was not sufficient for modeling to occur. It had to be purposefully planned, and ecologically relevant. Feedback was mainly confined to formal conferences, and was also the activity described for the triad. Few attempts have been made to
analyze conferences and those of the R&DCTE study isolated the conference from the school setting.

**The Program of Student Teaching**

For the purposes of this review Locke's (1984) definition of program was used. Program had two components: (a) process, teaching learners how to learn; and (b) content, the subject matter to be taught. Logic suggested that the program of student teaching ought to be: (a) consistent with, and extension of, the entire undergraduate teacher education program, and especially the preceding early field experiences; and (b) compatible with the program of the schools in which student teaching took place. On both counts the literature was sparse. That which was available was generally prescriptive, rather descriptive. This review included RTE and RTE-PE literature, with special attention given to literature examining tasks since close examination of a task theory of student teaching developed by Tinning (1983) suggested that tasks might be a potential means of bridging the gap between the university and the school.

**Research on teacher education**

There was a tendency in the literature to equate program with socialization (for example, Lanier & Little, 1986; Tabachnick & Zeichner, 1984). The most comprehensive critique was that of Zeichner (1986a). He was critical of: (a) the practice of describing student teaching as a singular intervention without consideration of its internal dimensions; (b) a tendency to examine
isolated portions of the student teaching program in relation to developmental outcomes; and (c) reliance upon descriptive public statements of intent rather than close scrutiny of the curriculum-in-use. Zeichner attributed some of the blame for this state of affairs to the teacher educators who conduct the programs and typically give little attention to substance.

Zeichner (1986b) advanced a typology for defining the content of student teaching programs which he juxtaposed with conceptions of the teacher's role provided previously by Lanier (1984a). Zeichner's four types of programs are listed below with Lanier's conceptions in parentheses:

1. behavioristic (skilled performer)
2. traditional-craft (skilled performer)
3. personalistic (effective person)
4. inquiry (professional decision-maker)

The key terms conveyed the philosophical underpinnings of each orientation but they were not informative of what the student teacher actually did during student teaching.

Zeichner (1986b) also reported on his earlier analysis of 16 studies of student teaching. He noted that very little information was provided in the studies about the organization and structure of student teaching such as when it took place, duration, and number of classroom placements involved. No details were provided about content, or curriculum.

An alternative approach was to trace through those isolated portions Zeichner challenged, and present them in the order in which
they occur for student teachers. Three studies (Becher & Ade, 1982; Feiman-Nemser & Buchmann, 1983; and Evans, 1986) examined the relationship of the early field experiences to student teaching.

Becher and Ade (1982) had university instructors (supervisors in this dissertation) rate placement sites for early childhood education student teachers on a three point scale on three characteristics: (a) modeling of good teaching behavior; (b) feedback to the student teacher; and (c) opportunity for innovation on the part of the student teacher. In four field experiences the student teachers were graded on a four point rating scale for planning, organizing, and provisioning, evaluating, implementation, attitudes and insights, and personal qualities. The purpose of the study was to determine the relationship between final grades and field placements.

The study was conducted in two parts. The placement in Part I of the study was half day for eight weeks. The placements in Part II were: (a) 100 clock hours, (b) half day eight weeks, and (c) full day eight weeks. The results from Part I revealed that feedback to the student teacher was the only field placement characteristic significantly positively correlated with final gradings. In Part II there were no clear trends but rather variations in the ratings in each experience. Becher and Ade were surprised that modeling lacked a strong relationship to final performance (see page 55). A second unexpected finding was that student teachers who were initially evaluated as very good had deteriorating performances on later experiences. Becher and Ade
attributed this to pressure on the student to upgrade from very good to outstanding, and suggested that they had shown marked improvement in the early experiences because there was no pressure. The specificity of the study to early childhood education limited generalizability but the notion of rating field placement sites has more global potential.

From observational data and interviews, Feiman-Nemser and Buchmann (1983) created three vignettes to illustrate their concern over what they considered to be unquestioned acceptance of the benefits derived from field experiences at different stages of undergraduate teacher education. The first vignette described an exploratory early field experience, the second emphasized the like between field experiences and university course, and the third was student teaching per se.

Feiman-Nemser and Buchmann analyzed the vignettes by asking: (a) what was the student teacher learning? (b) how was the experience related to helping pupils learn? and (c) to what extent did the experience foster the capacity to learn from previous experiences? The answers were metaphorically linked in three pitfalls. The familiarity pitfall dulled student teachers from thinking constructively about a situation they already knew so well. The two-worlds pitfall highlighted the dichotomous relationship of the school and university. The student teacher was left in the unenviable position of having to make his or her own connections between the two. The cross-purposes pitfall demonstrated that classrooms were structured as places for pupils to
learn, and were not specifically designed for the teaching of teachers. The vignettes were not, of course, empirical descriptions but they did provide an alternative perspective for critically thinking about the purposes of field experiences.

The third study by Evans (1986) focused on the student teachers as observers in the second of three practica in a three year education institution. Because the study took place in a developing nation in a classroom which was not typical of those in schools in more developed nations, care must be exercised in interpretation of the results. The purpose of the field experience was, however, very clear to the three student teachers. It was preparation for student teaching which would be their third and final practicum. The student teachers were concerned with short term priorities such as gathering ideas that would enable them to teach in student teaching. Evans argued that this probably prevented them from observing teaching to become reflective practitioners over the longer term. Modeling also arose again as an issue but with a different slant. Evans recommended that the classroom teacher model observation for the student teacher and point out to the student teacher when they were observing the pupils and why. His overall treatise was the need to regard observation as a skill to be systematically developed in student teachers. Similar thoughts have been expressed in physical education (Armstrong, 1986; Barrett, 1983; Bell, Barrett, & Allison, 1985; Jensen, 1980; and Pauwels, 1981).
Observation often serves as the introductory phase in student teaching after which the student teacher is given increasing responsibilities until a full teaching was assumed (Dejnozka & Kapel, 1982). Zimpher et al. (1980) identified one of the formal duties of the university supervisor as phasing the student teacher into the ongoing instructional activity of the classroom but did not elaborate upon how it actually happened. Griffin et al. (1983) reported that one of the two universities in the R&DCTE study had a "pacing guide" for incremental increases in student teaching responsibility. Overall, though, Griffin et al. found situation variables were the principal factors affecting differential increment rates among the student teachers. Furthermore, the observers employed by Griffin et al. experienced few occasions in which the student teacher taught without the cooperating teacher assisting, or at least being present in the classroom. Even allowing for only five observations of each student teacher, Griffin et al. commented that the cooperating teachers appeared reluctant to give the neophyte complete control of classroom events.

The two-worlds pitfall was described by Feiman-Nemser and Buchmann (1983) as part of early field experiences preceding student teaching. University seminars concurrent with student teaching were mentioned by Dodds (1985a), and Zeichner (1986a). More explicit descriptive accounts were given by Weinstein and Woolfolk (1986), and Sanford and Emmer (1986).

Weinstein and Woolfolk (1986) described a three hour weekly seminar they held concurrently with student teaching. Fuller's
(1969) teacher concern for survival coupled with Weinstein and Woolfolk's "practical wisdom" determined the three main topics for discussions and assignments: (a) the physical arrangement of the classroom; (b) established structures; and (c) rewards and penalties. Weinstein and Woolfolk recognized the limitations of their seminars particularly the lack of school visits by the seminar instructors, and time and effort the seminar demanded of the student teachers in addition to the teaching responsibilities. The student teachers did become more perceptive of classroom events, and often realized that their cooperating teachers had not deliberated on the same topics.

Lanier and Little (1986) have criticized the foregrounding rather than backgrounding of classroom management. The more subtle theme, "going with what works" (Tinning & Siedentop, 1985), pervaded Weinstein and Woolfolk's descriptive report. It would appear that teacher educators must secure and maintain the cooperation of student teachers just as student teachers must do likewise with their pupils. Teacher educators like Weinstein and Woolfolk were captors in the ecology of student teaching.

A more purposive study of seminars for student teachers was conducted by Sanford and Emmer (1986). Their purpose was to field test and evaluate an observational guide used in the seminars with 109 student teachers held in four different teacher education institutions. Data were collected in the form of student teacher products, instructors' comments and recommendations, and student teacher's comments and recommendations. Although the guide was used
in different ways according to the program structure of each
institution, Sanford and Emmer reported that its use was consonant
with the goals of the guide and increased student teachers' (a)
knowledge of classroom management concepts and terms; (b)
understanding of the demands of classroom settings, and awareness of
the details teachers must attend to in their management plans; and
(c) ability to plan for and make decisions about management in their
own classrooms. Sanford and Emmer considered that management should
not exclude content issues, and management should be
future-oriented, not just the "here-and-now" approach witnessed by
Griffin et al. (1983), and Evans (1986).

Neither the Weinstein and Woolfolk (1986) nor the Sanford and
Emmer (1986) studies considered the duality of student teaching
brought about by participation in campus-based seminars. Such
seminars accompanied by assignments and grades emphasized the
student component of student teacher, while implementing management
strategies in the classroom emphasized the teacher component.

Research on teacher education — physical education

In addition to Locke's (1984) RTE-PE monograph, Dodds (1985a)
provided physical educators with a comprehensive review of field
experiences during elementary undergraduate teacher education. As
with Zeichner's (1968) critique, Dodds was restricted in the details
she included in the review and emphasized the university's interests
rather than specifying what the student teachers actually do in
schools.
A potential avenue through which further details could be investigated was provided by Tinning (1983), in his task theory of student teaching in physical education. Historically, Tinning's theory had its origins in the conceptualization of classroom tasks as part of Doyle's broader investigation of classroom ecology (Doyle, 1977, 1979a, 1979b, 1981, 1983, 1984, 1986a; Doyle & Ponder, 1975; Doyle, Sanford, Clements, French & Emmer, 1983). The main features of these studies are summarized here as background to Tinning's study.

Classroom ecology research was synthesized by Doyle (1986a) in his discussion of classroom organization and management. The critical elements were segments (sessions, lessons, activities, and routines); tasks (learning and order); and context which interacted to determine which teaching skills and behaviors were possible. Doyle (1981) claimed that pupils tend to think about classrooms in terms of tasks. A task consisted of: 

(a) a goal state or end product to be achieved; and
(b) a problem space, that is, a set of instructions, conditions, and resources available to reach the goal state

(Doyle, 1986a, p. 394). The learner was the active mediator who negotiated with the teacher for an exchange of grades for performance by determining the degree of task ambiguity and task risk. Task ambiguity "refers to the extent to which a precise answer can be defined in advance or a precise formula for generating an answer is available" (Doyle, 1983, p. 183). It was an inherent feature of academic work, not poor explanations by the teacher. Task risk "refers to the stringency of the evaluative criteria a
teacher uses and the likelihood that these criteria can be meet on a
given occasion" (Doyle, 1983, p. 183). Ambiguity and risk were
decreased by routinization of tasks, or what Soar and Soar (1979)
labeled "established structures." Task risk was ultimately tied to
accountability. Tasks were accomplished by pupils engaging in
activities.

Doyle's conceptualizations were first tested in RT-PE by
Tousignant (1982) in a naturalistic study of four different physical
education secondary school classes. Tousignant found, consistent
with Doyle, that the classes were characterized by two overlapping
task systems — instructional and managerial. Tasks were further
deefined by the degree of completeness with which the teacher stated
the goal, performance and criteria. Tousignant designated tasks as
implicit, generally explicit, and fully explicit. Most pupils in
physical education accomplished the tasks for which they were held
accountable despite incomplete task specification. The tasks were
contingently developed over time and in the process the boundaries
of the tasks were gauged by the pupils. When there was no formal
accountability on pupil performance, the instructional task system
was suspended, and informal contingencies controlled the
explicitness of the tasks. The teacher foresook formal
accountability in exchange for pupil cooperation.

The second study of tasks in physical education was conducted
by Alexander (1982). He observed one high school sophomore in 26
physical education classes and found that the real task for the
pupil was to pass physical education. This task bore little
resemblance to the instructional tasks. Furthermore, managerial
tasks were specified in more detail than instructional tasks.

Tinning's (1983) study used the foundations laid by Tousignant
(1982) and Alexander (1982). In a case study of one student
teacher, Tinning identified a third type of task — social. He
therefore revised the classification of tasks and labeled them
teaching, organizational, and social. Teaching tasks were those in
which the student teacher had "direct contact with the pupils for
the purpose of facilitating involvement in the subject matter of
physical education — namely motor activity" (p. 234). Organizational tasks were "preparing for teaching" (p. 235) such as
lesson planning, and setting up equipment. Social tasks "functioned
to create and maintain cordial relations between the intern and the
cooperating teacher or university supervisor in particular, but also
with such people as the school principal, school janitor, or other
school teachers" (p. 235). Teaching tasks occupied the greatest
portion of the student teacher's time but Tinning suggested that the
importance of the tasks varied between members of the triad.

Tinning made one further distinction between "macrotask" which
was student teaching per se, and "microtasks" which together
comprised the student teaching experience. One hundred and
fifty-nine microtasks were listed from the observations Tinning made
in both elementary and secondary school settings. Close examination
of this list by this researcher suggested that further refinements
were possible and might provide links between the university and the
school. Tinning did not identify the originator of each task but
enclosed guidelines from the university listing tasks for the student teacher to perform both in the university and the school. For example, one task required the student teacher to attend meetings on campus, another was to prepare three management objectives. It appeared that the first of these tasks was to be performed by the student teacher as a student of the university, while the second was to be performed by the student teacher as a teacher at the school. The cooperating teacher set tasks which required the student teacher to move into the context outside the gymnasium such as telephoning officers in the school district. There was much repetition of tasks. Each lesson taught was listed as a separate task. The tasks appeared to be of differing magnitudes. For example, one organizational task was simply to "fill out a schedule card." Was this equitable with the teaching task of "teach a handball lesson?" Tinning isolated tasks.

Doyle (1984, 1986a) in more recent literature designated activity as the unit of analysis. A more holistic description of student teaching might be obtained by including activities as well as tasks.

Briefly, Doyle described an activity as a bounded segment of classroom time characterized by an identifiable focal content or concern, and a pattern or program of action. Common labels for activities in classrooms were derived from one or combinations of the following: (a) seating arrangements, for example, seat work; (b) physical space in which the activity occurs, for example rug time for reading; (c) content, for example, mathematics; (d) type
and number of students, for example, small group or whole class; (e)
props and resources used, for example, computers; and (f)
expectations of behavior of the teacher and students, for example,
lecturing-listening.

These labels concurred with the four aspects Erikson (1982)
listed for academic task structures when he considered tasks from
the perspective of classroom discourse. Erikson identified: (a)
the logic of subject matter sequencing; (b) the information content
of the various sequential steps; (c) the "meta-content" cues towards
steps and strategies for completing the task; and (d) the physical
materials through which tasks and task components were manifested,
and with which tasks were accomplished.

Doyle and Erikson were both more specific in their description
of tasks than Boesert (1979) whose notion of task is more akin to
Doyle's activity. All three represent differing perspectives for
classroom research but recognized that classroom events were logical
and amenable to research. They provided the impetus for tracing the
establishment and maintenance of tasks in this dissertation.

In his discussion of order in classrooms Doyle (1986a) recently
wrote:

classroom teaching has two major task structures organized
around the problems of (a) learning and (b) order.
Learning is served by the instructional function, that is,
by covering a specified block of the curriculum, promoting
mastery of elements of that block, and instilling
favorable attitudes toward content so that students will
persist in their efforts to learn ... Order is served by
the managerial function, that is by organizing classroom
groups, establishing rules and procedures, reacting to
misbehavior, monitoring and pacing classroom events, and
the like" (p. 395).
Later in the same article Doyle wrote:

Before examining these interconnections between instruction and management, it is important to note that the task of learning and the task of order represent quite distinct levels of analysis. Because individuals rather than groups learn, an analysis of learning directs attention to individual processes. But order is a property of a social system and thus needs to be framed in the language of group processes (p. 395).

An alternative way to view the tasks of teaching may be to refine Tinning's (1983) teaching, organizational, and social tasks by considering social tasks in terms of interpersonal relations, and organization in terms of the ordering of resources.

Summary

The program of student teaching was concerned with the processes of learning to teach, and with subject matter knowledge. Broad conceptualizations demonstrating the philosophical underpinnings of different programs of student teaching have been proposed by Zeichner (1986a). These served to orientate thinking about the program but did not illuminate upon what student teachers actually did on campus and in schools. More succinct information came from descriptions of early field experiences provided by Becher and Ade (1982), Feiman-Nemser and Buchmann (1983), and Evans (1986). Seminars linking university campus-based courses to student teaching were described by Weinstein and Woolfolk (1986), and Sanford and Emmer (1986). Such seminars highlighted the student component of student teaching.

Tinning (1983) developed a task theory of student teaching in physical education which had its historical roots in Doyle's (1977,
1979, 1984, 1986a) studies of classroom ecology. Careful examination of Tinning's and Doyle's research suggested that tasks and the activities used to accomplish them would provide a means of describing what a physical education student teacher actually did in a school, and provide the link between the university and the school.

The Context of Student Teaching

Context is more than a physical setting, it has interactive components — people with people, and people with the physical setting. The separation of context from the people and program of student teaching was an arbitrary one for the organization of the review, as was the decision to discuss context at two levels: (a) local, the classroom; and (b) broad, the ever widening circles of people and settings who have an effect on the local context even though they are physically distant from it.

Local Context

Doyle (1986a) listed six properties of classroom settings which "create constant pressures that shape the task of teaching" (p. 395). They included:

1. multidimensionality
2. simultaneity
3. immediacy
4. unpredictability
5. publicness
6. history
Interestingly, Doyle (1977) began his studies of classroom environments by observing 58 student teachers over a three year period. As beginners, student teacher behaved in ways that were incongruent with the demands of the environment and in the process made the demands of the environment more apparent. Recently, Green and Weade (1985) commented that student teachers (and substitute teachers) frequently find classes to be a different group of pupils for them than for the regular teacher. Student teachers may break the "rules" (established structures) that the regular teacher and pupils have constructed.

Several themes emerge from this predicament. First, the presence of the student teacher disturbed the classroom and therefore fulfilled a useful role in helping researchers learn about classroom regularities. This emphasized a differentiation Doyle (1979b) made between doing in classrooms and doing research about classrooms.

Such experiences were, however, often painful for the student teacher. The second theme was therefore contingent upon the first. Student teachers needed to learn the context of the classroom in which they were teaching. Copeland (1980) gathered descriptive observational data of two classrooms to which two student teachers were assigned. The student teachers taught in one classroom for one semester and then exchanged rooms for the following semester. Initially both student teachers encountered difficulties in their second classroom as they attempted to maintain the teaching behaviors they had developed in their first classrooms. Gradually
they changed their behaviors to match the conditions of the second classroom. Less often pupils adapted their behavior to the student teacher's expectations. Low achieving pupils were as successful as higher achieving pupils in influencing student teacher behavior, and more successful in minimizing their changes to teacher questioning behaviors. Copeland considered that overall the results supported the bidirectional — teacher<->student — nature of classroom influences. No reference was made in his report to any interaction between the two student teachers to engage in peer debriefing about the classrooms.

Third, as Feiman-Nemser and Buchmann (1983) wrote "student teaching occurs in somebody else's classroom; this makes the requirements for action and thought in student teaching fundamentally different from those for the teacher" (p. 60). Melnick, Arndt, Potiu, Wanous-Bullock, Burke and Little (1985) claimed that what the student teacher was really learning was to teach in the cooperating teacher's classroom, they were not learning to teach in the generic sense. Copeland (1975, 1977, 1978, 1979, 1980) in his series of studies linking modeling with classroom ecology showed that the specific teaching skills to be modeled by the student teacher were more likely to succeed if they were established in the classroom by the cooperating teacher prior to the student teacher's arrival. Copeland did not, however, elaborate upon whether or not the student teacher was aware of the history of the skill in the classroom.
The original three year study by Doyle (1977) revealed variations in student teacher strategies to cope by reducing the complexity of the classroom. Student teachers who were unsuccessful in their attempts to reduce classroom complexity appeared to ignore the multiplicity and simultaneity dimensions. They focused their attention on one locus in the classroom and became engrossed in one activity, letting the rest operate without them. Student teachers who were successful in adapting to the complexity tended to be more congruent with multiplicity and simultaneity. The skills they used were categorized by Doyle as chunking, differentiation, overlap, timing, and rapid judgment. Doyle tentatively concluded that learning the classroom environment for the student teacher involves a set of strategies for reducing complexity. Preparatory experiences under conditions lacking ecological representativeness, for example, tutoring or peer group teaching, may be useless or even detrimental. Not only did this call into question the value of campus based teaching skills practice but also raised questions about the value of student teachers basing their decisions to enter the teaching profession on prior experiences with children in ecologically different settings like camps and Sunday school.

Consideration must also be given to the timing of student teaching in relation to the stage of the school year. Brooks (1985) commented that what student teachers learned in cooperating teachers' classrooms was to "keep it going" rather than "get it going" (p. 63) yet by virtue of being a newcomer the student teacher must "get it going" for her or himself. Brooks was concerned that
student teachers generally were not in the classroom for the first day of the school year. Emmer, Evertson and Anderson (1980) in their descriptive study of elementary classrooms highlighted the importance of antecedent behaviors that were associated with year long teacher management effectiveness.

One of Doyle's (1981) observations was that "life in classrooms has a history of several months" (p. 4) during which interactions were visible to all participants and could be finely tuned. The corollary of this, the importance of the first days and weeks of student teaching, and the duration of student teaching, was not addressed in the literature. Tinning and Siedentop (1985) posited that student teachers were not able to be innovative in classrooms as recommended by their university supervisors because the student teacher had to devote time to gaining and maintaining pupil cooperation and the approval of their cooperating teacher.

An alternative approach to determining the student teacher's understanding of the classroom was taken by Duschl, Waxman and Morecock (1986). They compared the perceptions of classrooms held by pupils, student teachers, cooperating teachers, and university supervisors who each completed an appropriate version of the Individualized Classroom Environment Questionnaire (ICEQ). The items on the questionnaire addressed personalization, participation, independence, investigation, and differentiation. Approximately 500 pupils in 20 science classrooms were polled. The pupils did not differ significantly from the university supervisors on the first three items whilst the student teachers were significantly
Duschl et al. argued that pupils' perceptions of classrooms could be used to coach student teachers in adopting new or extant behaviors appropriate to science classrooms. Duschl et al. acknowledged the problematic nature of determining if the pupils were responding to the student teacher or latently to the cooperating teacher.

The first comprehensive description of the context of physical education was undertaken in New York in the Video Data Bank Project (VDBP; Anderson & Barrette, 1978). The image of physical education as classes of active students was shattered as analyses of the VDBP showed that pupils spent only 27 percent of class time engaged in motor activity. Similar time data from Belgium, Canada and Ohio ranged from 30 to 21 percent (Siedentop, 1983). The VDBP was confined to classes held indoors in gymnasiums because of the difficulties of videoing physical education classes outdoors.

Placek (1983) observed four experienced physical educators for two weeks each and analyzed their lesson planning. She concluded that the teachers were more concerned with pupil behavior than transmitting a body of knowledge. Physical education was simply a time when the pupils were "busy, happy and good" (p. 55).

Apart from Tinning's (1983) analysis of tasks in physical education student teaching, the context of the gym and playground remains unexplored in terms of how physical education student teachers learn about their teaching context, and the outcomes of them maintaining or changing context. Underpinning the study of
The local context, the classroom, is the main locus for the student teacher during student teaching. People and program link the classroom to the wider environs of the school, the school district, and the community, and the university.

Becher and Ade (1982) pointed out that:

By their very nature, no two placement sites are alike. All vary in a number of dimensions, and it is likely that they may have potentially different effects and make potentially different contributions to a student's growth (p. 25).

Feiman-Nemser and Buchmann (1983), and Melnick et al. (1985) charged that student teachers learn site-specific rather than generic teaching skills.

Among the problems identified by Zeichner (1986a) were a lack of research information about placement sites, insufficient attention to school-wide variables, and a lack of articulation between the university and school. Griffin (1982) noted the lack of match between the university and school in terms of goals, practices, and beliefs associated with student teaching, undirectional communication (university -> school), and minimal understanding of schools by student teachers.

The literature reviewed did not report upon student teacher activity beyond the local context except for campus based seminars (Sanford & Emmer, 1986; Weinstein & Woolfolk, 1986).
People and institutions in the broad context were, however, interested in student teaching. Dodds (1985b), and Zeichner (1986a) reported that some states in America mandated the number of hours of student teaching, and the nature and level of student teaching experiences. Whether the criteria for the mandates was derived from educational or other reasons was not specified.

Of further far-reaching implications for the practice of student teaching is the pervasive climate of reform in teacher education per se. Three sets of documents giving evidence of this were: (a) Improvement in Preservice Teacher Education Project sponsored by the National Institute for Education (Penstercracher, 1984; Lanier, 1984b; Vaughan, 1984); (b) Beyond the Looking Glass (Hord, O'Neal & Smith, 1985); and (c) Tomorrow's Teachers: A Report of the Holmes Group (Lanier, 1986). In the press of the local context the current student teacher is probably unaware of these but the teacher educator supervising the student teacher has the reform movement as part of his or her context.

In summary, two levels of context -- local and broad -- were arbitrarily isolated to structure this section of the review. The literature was sparse on empirical evidence but critical in opinion. Generally, context was considered to be responsive to, and changed by the student teacher, and vice versa. RT-PE studies have described the context for experienced teachers but that of the student teacher needs further investigation.
Summary

This review of literature was undertaken to identify concepts which might have the potential to unify the body of knowledge in RTE-PE as it came together in the student teaching experience of one physical education student teacher. Concepts were identified in the literature either by inclusion or exclusion, and centered upon people, program, and context. Koehler (1985) and Zeichner (1986b) had charged that the research on student teaching was "piecemeal, particularistic." This review tended to support that contention. Furthermore, much of the literature was descriptive and non-empirical, its value lay in its contribution as "thought pieces."

Yet, there was a need to constrain the literature review to manageable dimensions. The focus was upon literature not accessible in the major syntheses such as the Handbook on Research on Teaching (3rd edition, Wittrock, 1986), particularly that published after the syntheses; and studies for which only minimal details were included in the syntheses. For consistency, and where practical, RTE publications were reviewed prior to RTE-PE.
CHAPTER THREE

RESEARCH METHODS AND PROCEDURES

The principal assumptions underlying this case study of a physical education student teacher in an elementary school were: (a) changes would occur in teaching behaviors; and (b) change could be observed and described in the ten weeks allocated to student teaching. The research methods had to facilitate the observation of change instance by instance within and between lessons and activities. The researcher set a number of subquestions a priori but the possibility always existed that information would be revealed that had not been anticipated. Therefore, the research methods and procedures were open-ended. They were, however, systematic in design and implementation.

The methodological framework for the data collection and analysis was adapted from Evertson and Green’s (1986) heuristic approach to observation as inquiry and method in the Handbook of research on teaching (3rd edition). Evertson and Green identified eight issues for adequate observation. The issues were addressed in the following order in this case study:

1. observation as a means of representing reality
2. observation as research and decision-making
3. observation as a multi-faceted phenomenon
4. issues in sampling
5. observation as a contextualized process
6. systems for recording and storing observational data
7. units of observation and data analysis
8. sources of error

In this chapter the rationale for each issue will be reviewed followed by the details of how it was applied to the data collection and analysis. While the issues were listed discretely for this discussion in this chapter there was much overlap in practice. Data collection and data analysis were essentially interactive-reactive processes.

The persons and institutions who were the focus of the case study were referred to by pseudonyms throughout this dissertation.

**Observation as a Means of Representing Reality**

In practice not everything in the field of observation can be sensed by the human perceptual mechanism. Evertson and Green (1986) stated that observational research in educational settings should be systematic, deliberate, and question-driven. This study was systematic in that observations were made each day the student teacher was at the elementary school. The observations were deliberate in that researcher wrote fieldnotes of the location and nonverbal behavior of people; and made audiorecordings of the individual and collective verbal behavior of the members of the triad. The questions driving the study were presented in the statement of the problem.
The research subquestions initially directed what was selected from the field of observation. The selections from the field can be expanded by the use of technological devices such as audiorecordings and photographs but these are devices for data collection and storage. The researcher must act on them to select the data of interest. Often this selection process is described as "taking a slice of reality," or "freezing reality." The researcher had two choices: either to control for selectivity as typically occurs in experimental research, or to report the decisions that contribute to selectivity, for example, in a reflexive journal which then becomes a data source. (The researcher's reflexive journal will be discussed below in observation as research and decision-making.)

Observation as Research and Decision-making

In answer to the question "What is observation?" Evertson and Green (1986) wrote:

the purpose of the observation influences what is observed, how it is observed, and who gets observed, when observation takes place, how observations are recorded, how data are analyzed, and how data are used. In addition, the purpose of an observation is related to the theory, beliefs, assumptions, and/or past experiences of the person who is doing the observation. These factors form the frame of reference of the observer and influence the decision-making as well as the observational procedures (p. 163).

Observation as inquiry and method was, therefore, mediated by the observer and the instruments. The observer's frame of reference was part of the context of the research and included prior training and field experiences in observational inquiry in formal courses of

Frame of reference (Weade & Green, 1985) was introduced in Chapter 2 as an heuristic device to describe the personal, and curricular and pedagogical domains of each member of the triad. For consistency throughout this dissertation, the same heuristic tool was used to describe the researcher. When the members of the triad each reviewed their frames of reference, they recommended the inclusion of the researcher's frame of reference in Chapter 4. It is appropriate, however, at this point to elaborate upon the sequence of decision-making preceding the framing of the research question and subquestions, and flowing through the data collection. The decision-making proceeded in the three stages Spradley (1980) conceptualized for participant observations: description, focusing, and selection.

In the descriptive stage the participant observer gained an overview of a social situation — in this case student teaching. The researcher had supervised physical education student teachers throughout her teaching career beginning with her first student teacher in the first week of her teaching career, and through seven years of secondary school teaching, and 14 years experience in teacher education institutions. During this time the researcher had used a variety of observation methods including anecdotal records, rating scales, checklists, and categorical instruments.

In the focused stage, the field of observation was limited. The researcher made a major decision to focus on physical education
at the elementary level. First, the researcher was aware, from experience as a university supervisor, that generally the same lesson plan was taught across grade levels. By observing the same lesson plan taught repeatedly to a number of classes there were more opportunities to detect whether or not changes were made by the student teacher within and between lessons. Second, the researcher was aware of professional pressure in physical education in her own country, Australia, to convince the education authorities to provide elementary physical education specialist teachers. Observations in the elementary setting would enable the researcher to increase her knowledge of physical education at this level.

The focusing stage occurred in the two quarters immediately preceding the case study. The researcher tested the data collection procedures (fieldnotes and audiotapes) with student teachers she was supervising in elementary schools. Test interviews were conducted with a fellow graduate student who had experience as a cooperating teacher, and as a university supervisor, and with a student teacher to determine the adequacy of the interview schedules.

In the selective stage, the participant observation was narrowed to topics within the field of observation, that is, the case study per se guided by the researcher question.

The decisions made by the researcher were documented in her reflexive journal in three phases. The first phase commenced two months prior to the field observations, and reported primarily upon the focusing stage of the study. The second phase was the selective observation during the ten weeks of the student teaching. Entries
were made almost daily into the journal. The third phase was the post-observation phase during which decisions made during the data analysis were documented. Three types of entries were made in the reflexive journal. Methodological notes recorded the activities of the researcher such as purchasing and testing the audiorecording equipment, or formatting the fieldnotes. Interpretive notes were the subjective reactions of the researcher to a situation such as a judgment about the performance of the student teacher, for example, when the student teacher did not sit classes down during her explanations, the researcher noted she (the researcher) was frustrated by not being able to tell the student teacher what to do. Theoretical notes linked the observations to the reference materials, and were often preliminary attempts to conceptualize the patterns emerging in the data. For example, the different ways in which the cooperating teacher interacted with the student teacher during lessons were initially considered as direct and indirect instruction.

The remainder of this chapter elaborates upon the details of the decision-making in each of the other issues of observation as inquiry and method raised by Evertson and Green (1986).

Observation: A Multi-faceted Phenomenon

Evertson and Green (1986) conceptualized observation along a continuum from the least formal everyday tacit observations teachers and pupils make of each other in daily classroom life to highly
formal question drive observations typical of a classroom researcher.

In this case study the researcher engaged in highly formal observations of the student teacher teaching pupils, and interacting with the cooperating teacher and university supervisor. In addition, the members of the triad engaged in systematic observations of each other when they employed the Basic Academic Learning Time: Physical Education (B-ALT:PE) Observation Schedule (see Appendix B).

Issues in Sampling

Evertson and Green (1986) listed three issues of concern in sampling in observational research. Subsumed within their first issue were further issues raised by Herbert and Attridge (1975). In outline form the issues can be summarized:

1. what is sampled, when and where
   (a) number of subjects
   (b) total length of time of observation
   (c) distribution of observation time
   (d) likelihood of observations being representative of the phenomenon under study
   (e) alternatives/options

2. when sampling decisions were made

3. time issues in sampling

These issues were addressed: (a) with the selection of the case methodology as the appropriate means to study the multiple
variables of people, program, and context within one student teaching experience; (b) gaining entry; (c) confidentiality; and (d) the duration of the study and observation schedule.

Case methodology

The dimensions of a case study were defined by Bogdan and Biklen (1982):

A case study is a detailed examination of one setting, or one single subject, or one single depository of documents, or one particular event (p. 58).

Kenny and Grotelueschen (1984) preferred to leave the definition of a case study open as befitted their alignment with critical inquiry. Among their parameters for a case study were:

. . . data are qualitative; data are not manipulated; studies focus on single cases; ambiguity in observation and report is tolerated; multiple perspectives are solicited; holism is advocated; humanism is encouraged; and common and/or non-technical jargon is used (p. 38).

Kenny and Grotelueschen reviewed the arguments for and against the case study. Two broad perspectives were derived from their review. The first was the reactionary posture which in essence was non-positivistic. Kenny and Grotelueschen considered this a useful justification of the case study approach but not a definition or conceptualization of it. The second perspective was the progressive posture which went beyond just reacting to the traditional or rationalistic approach to research. Kenny and Grotelueschen identified four strategies in making the case for case study: criticism of traditional educational research, comparative methodological analysis, a pragmatic approach, and a historical
approach. The pragmatic approach claimed that truth was built upon a criterion of workability, and that a theory was true to the extent that it guided action successfully. On this basis:

it is not this or that methodology per se that makes a difference, but the difference they make that is the crucial question (p. 48).

Smith and Heshusuis (1986) deplored the tendency for educational research to function on the basis of what works. The more subtle issue raised in the study of classroom ecology was not that educational research was a matter of "going with what works" but rather the phenomenon under investigation, securing pupil cooperation, functioned that way. Workability when placed in the perspective of critical inquiry by Kenny and Grotelueschen had a substantial epistemological base with the potential to develop a research mode appropriate to the multifarious nature of educational phenomena. Doyle (1986b), in arguing for case methods in teacher education, concluded that "the definition, selection, design, and classification of cases in teacher education requires a theoretical knowledge about teaching" (p. 11).

Zeichner (1980) elucidated what he called "constructivist" approaches to research, that is, the various qualitative methods of participant observation, case study, and ethnography. He suggested that more use should be made of them since "they enable the pursuit of unanticipated phenomena as they emerge and offer a means of understanding the existential reality of becoming a teacher" (p. 53). Zeichner (1980) claimed that such approaches would deliver more information about learning to teach than public statements of
the intention of teacher education programs. Like others in the area Zeichner was not calling for exclusive use of qualitative methods but a clear relationship of method to the problem to be solved.

In teacher education Shulman (1986b) argued affirmatively for the case method, not as the report of an event or incident but as a means of illuminating both the practical and theoretical. He suggested that there were three types of cases which paralleled three types of propositional knowledge in teaching. Prototype cases exemplify theoretical principles derived from empirical research; precedents capture and communicate maxims which represent the accumulated wisdom of practice; and parables convey norms or values which are the normative propositions based on what is ethically and morally right for teachers to do. Shulman astutely pointed out that "Generalizability does not inhere in the case, but in the conceptual apparatus of the explicator" (p. 12). Furthermore, Shulman noted that "there is no real case knowledge without theoretical understanding" (p. 12). The case method was not intended to replace other types of research using other paradigms but rather to enhance the understanding of educational phenomena through the securing of depth of knowledge not obtainable by the other means. To that extent Shulman's writings concurred with the notions of Kenny and Grotelueschen (1984) when they emphasized that it is not methodological differences that were of greatest import but the resulting difference in understanding that was crucial.
Methodology must, however, meet minimum standards for adequate inquiry. Lincoln and Guba (1985) tabulated in two broad categories—substantive considerations, and methodological considerations—that they considered to be the minimal elements to be addressed by the researcher using the case study method. The substantive considerations included:

1. an explication of the problem, evaluand or policy option that is the occasion for the study.
2. a thorough description of the context or setting within which the inquiry took place and with which the inquiry was concerned.
3. A thorough description of the transactions or processes observed in that context that are relevant to the problem, evaluand, or policy option.
4. a discussion of the saliencies that are identified at the site; that is, those elements identified as important that are studied in depth.
5. a discussion of outcomes of the inquiry, which may most usefully be thought of as the "lessons to be learned" from the study (p. 362).

With regard to the last point Lincoln and Guba stressed that the "lessons" were not generalizations but rather "working hypotheses" that relate to understanding of the site.

The methodological considerations included:

1. a thorough description of the credentials of the investigator(s) such as training and experience, along
with predispositions and biases towards the problem or setting.

2. a thorough description of the methods that were employed, including the nature of the finally unfolded design.

3. a thorough description of the measures undertaken to increase the probability of a trustworthy study and to assess that trustworthiness at various places in the study, particularly at the end via member check and audit (p. 363).

Lincoln and Guba's substantive and methodological considerations were consistent with Evertson and Green's (1986) issues in doing adequate observation.

The key to delimiting the case would appear to be the discreteness of the unit under investigation and the ease with which "the boundaries are kept in focus" (Stake, 1978, p. 7) by appropriate explanations of the methodology, and underpinning concepts. The current investigation was a detailed study of one student teacher in one setting with the boundaries set by the supervision triad, the context within which the student teacher interacted, and the need for continuity and completeness of data over the ten week quarter of student teaching. As Doyle et al. (1983) stated "... to examine the intersection of management, instruction, students, and curriculum it is necessary to look closely at classroom processes" (p. 11).

Case descriptions of physical education teachers have been documented in two broad categories. The first were "Profiles of
Excellence" (Templin, 1983), and the second were "Profiles of Struggle" (Locke & Griffin, 1986). Steen (1985) investigated the subjective warrants of students in their pre-admission year for physical education teacher education. Case studies of physical education student teachers would fill the void between pre-admission students and experienced teachers, and enhance understanding of professional development.

Gaining entry

Initial discussions were undertaken with the researcher's adviser, and the coordinator of physical education student teachers at The Midwestern University, Dr. Thomas (pseudonym), in fall quarter of 1985. As soon as the field placings of the student teachers for the spring quarter of 1986 were known, Dr. Thomas authorized the researcher to make preliminary contact with the four available schools and four student teachers. The first student teacher and school were eliminated from the list because of uncertainty about the student teacher's transport arrangements to the school. The second student teacher and school, Tiergarten Elementary School (hereinafter simply Tiergarten), were approached since the researcher was supervising there in winter quarter 1986. The school was accessible and the entry process was partially under way. The researcher undertook informal discussions of the purposes and procedure of the study with the student teacher, cooperating teacher, school principal, and university supervisor. These were followed up with formal written approaches to these people as well
as the school district. The letter to the student teacher is included in Appendix C as an example of the formal written approach.

As a postscript it should be noted that the first student teacher was re-located the Friday before the Monday on which spring quarter commenced. The third student teacher was withdrawn from student teaching the week prior to spring quarter because of a deficient grade point average. The fourth student teacher withdrew voluntarily at Week 7 of spring quarter.

Confidentiality

The policies and guidelines for review of research, development, and related activities involving human subjects (The Midwestern University, 1984; note Midwestern was a pseudonym) were consulted and discussed with the researcher's adviser, and a qualitative researcher, early in winter quarter, 1986. Since the principal participants were all over the age of 18 years the research was exempt from further review.

Verbal and written guarantees were given to the participants that their identities would be masked by pseudonyms. The school district was assured verbally and in writing that the procedures of the research were purely observational, and that the researcher would not intervene or interrupt normal school functions. Photographic records were restricted to equipment arrangements.

Duration of the study and observation schedule

Physical education student teachers at The Midwestern University at which the study was located typically elect to gain
certification for both elementary and secondary grade levels. During their ten week experience they teach each morning in one setting, for example, an elementary school, and in the afternoon in the other setting, for example, at a middle school or high school. The term "bipartite student teaching experience" is used in this dissertation for placements in two schools. The study reported herein was confined to the elementary setting, Tiergarten. The researcher knew the same lesson plan was taught across intermediate grade levels for an entire week enhancing the possibility of detecting changes in teaching behaviors. The researcher desired to learn more about the elementary setting, and personal commitments restricted her presence in a school to the mornings.

The student teacher, Betty Snow, spent each morning at Tiergarten with the cooperating teacher, Bill Stanley. Betty spent each afternoon in a secondary school in the same school district but was not accompanied by the researcher. The university supervisor, Michele Felix, supervised Betty in both schools.

A total of 104 lessons were observed. Of the lessons observed 34 were taught by Bill, and 69 by Betty with one lesson jointly taught. In addition the researcher continued observations during planning periods and conferences, before school and lunchtime intramurals, and five field days, resulting in over 150 hours of observation.

While the student teaching experience proper was limited to one ten week academic quarter it was preceded by several meetings which were crucial to the experience and to the study. Two briefing
meetings were held on the same afternoon in the last week of winter quarter 1986. The first was conducted by the coordinator of student teachers from the College of Education and was attended by student teachers from all subject matter areas. This meeting was followed immediately by the second, separate briefings by coordinators in each subject matter area. The student teacher and researcher independently attended these briefing sessions. These briefing sessions were audiotaped with Dr. Thomas' permission and transcribed.

Prior to the commencement of the spring quarter in which the observations were made, Betty, Bill and Michele were briefed about the purposes and procedures of the study, and given time to consider their participation in it. When they consented to participate they were formally interviewed. Post study interviews were conducted with each participant on either the Thursday or Friday of Week 10. The final lessons of the school year were held on the Wednesday of Week 10 of the study. Table 1 summarizes the critical stages and data collection.
### TABLE 1

Stages of the Case Study and Related Data Collection and Data Analysis

<table>
<thead>
<tr>
<th>Week</th>
<th>Student Teacher</th>
<th>Cooperating Teacher</th>
<th>University Supervisor</th>
<th>Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Winter quarter, 1986</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Briefings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. College of</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Dr. Thomas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interview</td>
<td>Interview</td>
<td>Interview</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FOCUSING**
Selection of student teacher, and school.
Informal approach.
Entry.

Briefings as for student teacher.

| **Spring quarter, 1986** |                 |                     |                       |            |
| 1.                         | Observation     | Teach               | Observation           |            |
| 2.                         | Observe and team| Teach, observe,     | and conference        |            |
|                            | team, assume "full"| and conference     |                       |            |
|                            | teaching load   |                     |                       |            |

**SELECTION**
Observation $\rightarrow$ fieldnotes.

Audiotape lessons, conferences, and informal interviews.

Photograph equipment.
<table>
<thead>
<tr>
<th>Week</th>
<th>Student Teacher</th>
<th>Cooperating Teacher</th>
<th>University Supervisor</th>
<th>Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>Assignment for Dr. Thomas</td>
<td></td>
<td></td>
<td>Collect documents.</td>
</tr>
<tr>
<td>5.</td>
<td>Write journal for researcher</td>
<td></td>
<td></td>
<td>Reflexive journal.</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td>Ongoing data analysis.</td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Briefing with Dr. Thomas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td>Write recommendations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Summer quarter, 1986**

- Interview
- Interview
- Interview
- Interview each member of triad. Data analysis. Triangulation
- Member checks
- Audit trail
Observation as a Contextualized Process

Evertson and Green (1986) identified observation as a contextualized process on four levels: (a) the local context as embedded in broader levels of context, (b) historical context of the setting, (c) historical context of the event, and (d) context as determined by the research event.

Local context embedded in broader levels of context

Griffin et al. (1981) proposed an organizational framework for research on student teaching which placed the triad at the center of a series of layers of context. The student teacher was surrounded by both the school in which student teaching was conducted, and the teacher preparation course which sponsored student teaching. The school was surrounded by the school district, while the teacher education program was part of a larger college of education and university program. Eventually the school district and university both became part of a broader societal and political context. Shulman (1986a) commented that "there is no 'real world' of the classroom, of learning and of teaching" (p. 7). Rather, there are many such worlds often nested within each other, running parallel courses, and interacting in unpredictable ways. Subquestions of this case study specifically address context in terms of how the student teacher learned about it, and her interactions with it.

A brief description of the school district, school and its physical education facilities as observed by the researcher are presented here as a starting point for later analysis of the
subquestions. Detailed descriptions will be presented in Chapter 4 following the frames of reference of the people.

Tiergarten was one of seven elementary schools in a suburban school district in a midwest state. The district had two middle schools, and one high school. Approximately 7,500 pupils were enrolled in the school district. The majority of pupils came from white, middle to upper class homes.

The enrollment at Tiergarten at the time of the study was 571 pupils in kindergarten to grade 6. Kindergarten to grade 3 were referred to as the primary grades, grades 4 to 6 were the intermediate grades. There were 24 classroom teachers, ten support staff, and administrative staff. The pupils were housed in one building. Originally it had been an open plan design but concertina doors now divided it into discrete classrooms.

The physical education facilities consisted of a gymnasium on the eastern end of the school building, plus outdoor facilities for lacrosse, soccer, softball, football, basketball, and a running track around the carpark. There was a wide range of climbing apparatus both in the gymnasium and outdoors.

**Historical context of the setting**

Evertson and Green (1986) commented that the historical context of the setting was not directly observable but should be explored through interviews and documents in order to understand why an event or structure occurred where it did, or why it did. The researcher discussed the history of the school with Bill during the first
interview. In addition Bill gave the researcher a number of documents describing the school and the physical education program.

Tiegarten Elementary School opened in 1972. Bill Stanley had taught there for 15 years during which time he had developed the physical education program, and built up the supply of equipment necessary to support the program.

The description of the program written by Bill identified three closely related areas: (a) the instructional program which consisted of regular activities conducted during the physical education period involving logical and sequential motor skill development; (b) the intramural program before and after school, and at lunch times; and (c) a motor development program for the primary children (which was not in operation during the study). During the study the instructional program for the intermediate grades focused on softball concurrent with track and field skills for the field days held in Week 8. Bill had softball concurrent with track and field because he had previously found track and field unsatisfactory by itself. The primary grades worked on ball handling skills, and a variety of motor activities for their field days held in Week 10. The instructional guide for track and field had been developed by the physical education faculty at The Midwestern University, and pilot tested at Tiegarten.

Physical education student teachers had been placed at Tiegarten over the past 14 years. Both Michele and the researcher had supervised student teachers at Tiegarten previously.
Betty had not previously visited Tiergarten but had completed one field experience in the physical education Secondary Core course at one of the middle schools in the school district. In addition to teaching at Tiergarten and the high school, Betty coached the girls' freshmen softball team at the high school. She had also submitted her résumé to the school district, and been interviewed as a potential candidate for one of the three vacancies for physical education teaching positions in the 1987 school year.

**Historical setting of the event**

The event was student teaching by Betty. Her frame of reference described events in her life prior to student teaching (see Chapter 4). Betty had completed the prerequisite courses of study within the College of Education at The Midwestern University to enable her to student teach.

The Midwestern University provided a *Student Teacher Handbook* which described the field experiences of the students in teacher education. There were two broad components: (a) pre-student teaching field experiences; and (b) student teaching. The pre-student teaching experiences included: (a) a Freshman Early Experience Program (FEEP) consisting of 180 contact hours in school settings, and weekly on-campus seminars designed to allow the student to explore a career in teaching; (b) Professional Instruction (PI) consisting of 120 contact hours of clinical and field experience; and (c) special methods in the student's major area of study. In physical education the special methods were
addressed in three sequential three credit hour courses — Introductory Core, Secondary Core, and Elementary Core — which included on-campus and school-based work.

Student teaching was the culmination of the field experiences. To be eligible for student teaching the following requirements had to be met:

1. completion of at least 75 percent of the credit hours for the major area in which the student teaching was done;
2. attainment of a point-hour ratio of at least 2.25 in the teaching major and required professional courses; and
3. completion of prerequisite courses.

Fifteen responsibilities were listed in the handbook to be fulfilled by student teachers in their roles as: (a) learners, studying the teaching-learning process; and (b) co-teachers whose instructional duties increase from day to day (see Appendix I).

Context as determined by the research event

Given the selective nature of observation as a research method, Evertson and Green (1986) depicted a continuum at one end of which — inclusive — the researcher attempted to observe as widely as possible in the research context, at the other end — exclusive — the researcher controlled or minimized the observations to specific aspects of the contexts as would occur with a categorical observation instrument. This case study was located towards the inclusive end of the continuum.
The researcher was an observer participant who "shadowed" Betty while she was at Tiergarten. The researcher usually arrived at school before Betty each day and left after her. Betty arrived around 8:00 a.m. and left as soon as possible after the third lesson of the morning at about 11:25 a.m. When Betty and Bill were in separate venues, the basic decision rule was for the researcher to be with Betty unless it was determined that Betty was attending to personal business such as telephone calls, or visiting the bathroom. The researcher conversed with Betty only if there were no other people present to whom Betty ought to give priority such as pupils, or other school officials. The only times the researcher moved outside this passive observer function was to assist Betty set up equipment before the first lessons on some mornings, or bring it in at the end of the morning. By assisting with the equipment, the researcher was able to talk to Betty about the previous day's lessons, or the forthcoming lessons. At all times Betty was in charge of the situation and the researcher simply responded to directions. In this way the researcher was able to converse with Betty without interrupting her busy schedule. On one occasion when a pupil received what initially appeared to be a serious head injury the researcher offered to assist Betty. Bill arrived on the scene at that instant and took charge of the pupil.

The researcher: (a) observed lessons and equipment set-ups; (b) wrote fieldnotes; (c) audiotaped lessons, conferences between Betty and Bill and/or Michele, and informal conversations; and (d) photographed the equipment set-ups. People were not included in the
photographs. Sketch diagrams of equipment locations, and formations of the pupils were included in the fieldnotes.

During the lessons, and the field days, the researcher stood off to the side, only moving in close to Betty and the pupils when she did not intrude. From Week 2 each lesson had activities which used both indoor and outdoor facilities. When the classes changed venues the researcher walked as briskly as possible, or ran, behind the pupils. Running between venues was, in fact, an activity for the pupils. For safety of the people and the equipment, the small compact cassette recorder was placed on the floor under a chair, or worn by the researcher. The recorder fitted easily into a pocket and the external microphone could be clipped to a sleeve or collar to pick up most verbal transactions in the lessons. The only transactions not recorded were the intimate one-to-one conversations between Betty and Bill, and either of them with individual pupils. From the nonverbal hand and facial gestures the focus of these quiet conversations could often be approximated, and then confirmed later in discussions with either Betty or Bill.

During the field days in Weeks 8 and 10, and when the intermediate pupils were playing chase games over the entire school playgrounds in Week 9, the researcher dictated a commentary directly into the audiorecorder.

The conferences between the triad members were usually held in the physical education office. The researcher sat at her desk to write fieldnotes and audiotape. She avoided eye contact with the triad. The quality of the recording of these conferences varied
considerably because the physical education office was off the gymnasium which also served as the lunchroom. The conferences took place most often when the primary grades were at lunch, and the researcher was unable to close the office door.

The audiotape recorder and notepad for fieldnotes were visible at all times. Occasionally the pupils asked the researcher what she was doing. She told them that she was interested in learning about physical education in their school. Usually very little elaboration was necessary beyond this because the pupils became more interested in the researcher's accent and where she was from, Australia, than in what she was doing.

During the post-interview each member of the triad was asked to what extent they thought her or himself, other members of the triad, or the pupils were affected by the researcher's presence. Betty and Bill considered the researcher's presence had minimal effect. Bill said the pupils were used to visitors in the school so did not take any notice. Bill believed that he had been himself. He thought the researcher was probably closer to Betty than he was because Betty saw the researcher as a friend not involved in her evaluation. Betty said she would have liked to have asked the researcher her (researcher's) opinion on Betty's teaching but realized this was not possible. Michele was probably most affected by the researcher's presence and stated that she would probably have been more probing and demanding of Betty. This reaction was not unexpected since Michele was not present all the time herself and so did not "take the researcher for granted." Furthermore, she was unfamiliar with
the techniques of case study research. She was used to research methods that would be located at the exclusive end of Evertson and Green's (1986) continuum. A more detailed report of the influence of the researcher's presence on the context is presented at the end of Chapter 4.

**Systems for Recording and Storing Observation Data**

The questions driving the study determined the system used to record and store observational data. A narrative system supported by technological records was employed in the case study. The components of the system were original hand written field notes, audiotapes, expanded field notes, photographs and diagrams, reflexive journals, and documents. Interviews supplemented the data collection. Each will be described in terms of its recording and storage features.

**Original field notes**

The researcher wrote field notes in a spiral bound notepad. Information was noted about locations of people and equipment, and their psychomotor performance. Diagrams were drawn of locations of people and equipment. The original field notes served as a basis for the expanded field notes after which the original field notes were indexed and filed by date.
Audiotapes

A compact audorecorder with an external microphone was used to record lessons, conferences, conversations, and interviews. Back-up recorders were also used during interviews.

Tapes of 60 minutes duration were used. The researcher was advised by an electronics technician that 60 minute tapes were the most durable for the conditions under which the recordings were made. Since each lesson was of 50 minutes duration, one tape was generally used for each lesson except during planning periods when there were no verbal interaction. Equipment malfunctions were experienced on three occasions, then the field notes were the prime data source. Approximately 160 tapes were recorded including back-up tapes.

After leaving Tiergarten each day, the researcher went directly home where the tapes were checked, rewound, labeled and dated. The tapes were used extensively in compilation of the expanded field notes, after which the tapes were stored in chronological order.

Expanded field notes

At home the same evening, or as soon as practical, the researcher expanded the original field notes (Spradley, 1980) by typing them on a word processor, and integrating them with transcriptions from the audiotapes. The audiotapes were played on a foot operated transcriber as the researcher read the original field notes. Integration of the fieldnotes and audiotapes enabled the researcher to include in the expanded field notes direct
transcriptions of lesson presentations, especially when Bill, and/or Betty, addressed the whole class, conferences, and conversations in the chronological order in which they occurred. This was important in determining whether or not changes occurred within and between lessons. The conferences were included in chronological order to locate when advice was given to Betty and when she acted on it, if she did. The descriptions of actual psychomotor movements of the pupils were typed out as narratives within the expanded field notes.

Ochs (1979) noted that transcription conventions exposed theoretical and cultural underpinnings. Transcriptions of conferences and interviews were simply written in the order in which people spoke, without any grammatical symbols. It was necessary to add conventional grammar later when the members of the triad conducted member checks. They were unused to reading material without conventional grammar.

The symbols used in the expanded field notes and data analysis to indicate the speaker were ST (student teacher), CT (cooperating teacher), US (university supervisor), and two letters for pupils (for example, B1 for a boy with blonde hair).

The expanded field notes had consecutive page numbers beginning with Day 1, and line numbers which began afresh each day. There were a total of 967 pages of expanded field notes. A sample of the expanded field notes is presented in Appendix D.

Methodological notes and interpretive notes were included in the original and expanded field notes in the chronological order in which they occurred, and were designated MN and IN respectively.
Methodological notes referred to activities of the researcher such as changing an audiotape, or taking a photograph, or the location of the researcher. Interpretive notes were the subjective reactions of the researcher to a situation such as a judgment about the student teacher, for example, the student teacher looked gloomy.

The expanded field notes were filed chronologically in a ringbound folder and clearly indexed by week number, day number, date, and lesson number, for example, Week 1, Day 1, 31 March, Lesson 1. Conversations and conferences between varying members of the participants occurring within and between lessons were also indexed, for example, post-lesson conferences between Betty, Bill and Michele.

The expanded field notes served as the data source for the data analysis.

Photographic records

Photographs were taken with a polaroid camera of the arrangement of the physical education equipment at the beginning of each week, or each lesson if the equipment was re-arranged between successive lessons. Changes were generally not made in the arrangement of the equipment for the intermediate grades. The main changes were made by Bill when he used different games and equipment in the early part of the quarter to help Betty acquire some subject matter content for the primary grades. The researcher's agreement with the school district precluded the photographing of the few changes which did occur during lessons, or between lessons when
pupils were entering and leaving the gymnasium. The photographs were labeled, filed in chronological order, and indexed in a separate folder. A total of 100 photographs were filed.

Sketch diagrams were drawn of the location of equipment in the gymnasium and/or playgrounds. The route taken by the teachers and pupils during transitions between facilities were included on the diagrams. These were filed in chronological order in the expanded field notes. An index of diagrams was cross-referenced with the relevant photographs. There were 31 diagrams.

The researcher used the photographs and diagrams during the preparation of the expanded field notes, and data analysis.

Journals

Holly (1984) distinguished between a log, diary, and journal. A log was simply a record of performance, a diary was a more personal and interpretive form of writing, whilst a journal served the purposes of both a log and a diary: "It is a reconstruction of the experience and, like the diary has both objective and subjective dimensions, but unlike most diaries there is a consciousness of this differentiation." A journal contains a flow back and forth between the dimensions of the experience. Holly considered the journal to be a tool to focus on a specific topic. She recommended that everything be documented but the writer recognize the differences between different types of entries. The researcher and Betty each wrote journals.
The researcher dated each set of entries, and numbered the pages (over 220), and each entry. The journal served as a permanent record of the researcher's decision-making and was thus considered reflexive. The researcher recorded further methodological and interpretive notes in her journal along with theoretical notes. As the data analysis proceeded the researcher regularly scrutinized her journal to ensure that she acted upon the entries especially methodological notes. An extract from the researcher's journal is included in Appendix E.

During the preliminary briefing and the first interview, Betty was asked to simply write her reactions to what happened each day. She wrote a short, simple comment about what happened each day. Each entry was dated. The 39 entries varied in length from two lines to half a page. There were no entries between 9 and 16 May in Week 7. Betty gave her journal to the researcher on Monday of Week 7, and on the Tuesday after student teaching was completed. The researcher made photocopies and returned the originals to Betty. The brevity of Betty's entries was consistent with the brevity of her unit and lesson plans. Betty suffered health problems in Weeks 5 and 6 and the researcher did not consider it appropriate to ask Betty to write more in her journal. An extract from Betty's journal is included in Appendix F.

Documents

Documents were obtained from three sources — university (College of Education, and physical education and motor development
section), school, and student teacher — either as originals, or photocopies. Documents were dated, filed and indexed. A separate file was maintained for each set of documents. Where necessary names were removed from the documents by painting each side of the document with liquid paper.

The first set of university documents were handouts from the College of Education given to the physical education student teachers at the briefing session conducted by Dr. Thomas and included the Student Teaching Handbook of The Midwestern University. In addition, Dr. Thomas gave the physical education student teachers, documents specifically related to physical education such as task lists, lesson plan formats, and information on how to prepare unit plans. The researcher, as a supervisor of student teachers in a different school district from Betty, was given copies of all the materials normally distributed each quarter to university supervisors for their own information, and information which they were responsible for delivering to their cooperating teachers.

The second set of documents were given to the researcher by Bill, and were related to the school district in general, and Tiergarten in particular. During the first interview Bill gave the researcher a copy of the graded course of study for the school district, and a summary of the physical education program at Tiergarten, a class schedule, and a submission by Tiergarten to the Elementary School Recognition Program (a national award scheme for school excellence). During the quarter Bill gave the researcher
copies of handouts associated with the Five Star Track and Field award scheme, various field days, and a copy of the school newsletter. In addition, the researcher was given a copy of a handout distributed to all staff warning teachers of risks involved a physical contact with pupils. The school newsletter was removed from the researcher's files to protect the confidentiality of the school.

Third, copies were made of Betty's unit plan, and lesson plans. Bill had established a system whereby his student teacher deposited the lesson plan in an envelope on the bulletin board adjacent to Bill's desk in the physical education office. Therefore the lesson plans were continuously available once they were placed in the envelope by Betty. The researcher photocopied the plans as they became available, and filed them by grade level and week. At the completion of the student teaching experience Betty was required to submit all her written materials to Michele. When Michele returned the file to Betty, the researcher borrowed it and cross-checked all copies of all materials. In addition, the tasks set by Bill each week for Betty were photocopied and filed by week. During Weeks 1 and 2 Betty wrote short comments in the form of a log which she submitted to Bill via an envelope on the bulletin board. Photocopies were also made of these. Betty was unable to attend the on-campus briefing conducted by Dr. Thomas in Week 4. In lieu of attendance Betty was required to complete an assignment. A copy of the assignment was also placed in the document file. The B-ALT:PE Observation Schedules completed by members of the triad were also
copied and filed adjacent to the lesson plan on which the observations had been made.

**Interviews**

The researcher conducted separate formal interviews with Betty, Bill and Michele prior to and immediately after the student teaching experience. The interviews were designated first, and final. The purpose of the first interview was to obtain a personal history of each person for the frame of reference. The researcher also obtained details from Bill about Tiergarten. Michele was asked about the organization of the post-lesson supervision conferences so the researcher was able to plan to advance for the recording of them. One informal interview was held with Bill in Week 2, and two with Betty — one in Week 2, and one in Week 5.

The formal interviews were semi-structured according to the guidelines of Sellitz, Wrightsman and Cook (Kidder, 1981), and Patton (1980). The schedules for the first interviews were tested on another student teacher, and a graduate teaching associate who had experience as a cooperating teacher and university supervisor. The wording of the schedules was adjusted according to suggestions made in the test interviews. The final interviews were what Kidder (1981) termed "focused" interviews since their content was drawn from the student teaching experience. They could not be pilot tested. Betty was interviewed on the campus of The Midwestern university, Bill was interviewed at Tiergarten, and Michele at her home. The interview schedules are presented in Appendix G.
Extracts from interviews have been used extensively throughout Chapter 4.

Discussions between the subjects and researcher in the school setting used the conversational approach to the interviewing described by Patton (1980). A strength of this form of interviewing was that it allowed the interviewer to be responsive to individual differences and situational changes. This was especially valuable because it enabled the researcher to explore the field of observation over an extended period of time.

The first and final interviews were transcribed in full by the researcher. Separate files were maintained for each member of the triad. Each transcription had consecutive page numbering. Line numbers were begun afresh for each interview.

In addition, Michele audiotaped two conferences she held with Betty at the secondary school at which Betty taught each afternoon. Michele gave the audiotapes to the researcher who made copies of them and then transcribed them to include in the interview file with Michele's first and final interviews.

**Units of Observation and Data Analysis**

Of central concern in this case study was the need to organize the volume of data in a manner that facilitated the data analysis so that the end product, a description of the changes in behavior of a student teacher, meet the criteria for adequate observation (Evertson & Green, 1986). The units served as the linchpin between the data collection and the data analysis. There were two broad
groups of units. "Natural units" (Fassnacht, 1982; Evertson & Green, 1986, p. 174) were inductively derived from observations and specified discrete units of people, program and context. They served as the framework for recording and storing the data, especially the expanded fieldnotes. During data analysis when more explicit details were required the natural units were redefined and constituted deductively derived units.

Units of Observation

The people formed individual and collective units — student teacher, cooperating teacher, university supervisor, dyad, and triad. Dr. Thomas, the coordinator of the physical education student teachers was also considered a unit. The interactions of the people formed units — briefings (on the university campus), conferences, interviews, and conversations. The school organization and the physical education subject matter gave rise to the program units — subject matter units (softball, track and field, adventure games, and ball handling skills), weeks, lessons, and activities. The contextual units were the areas in the school where physical education was taught — gymnasium and outdoor facilities, the school itself, the school district, and the university. Tasks were natural units which linked across people, program, and contexts.

To the extent that these units were identified by the participants themselves, and the terms used by them, they constituted "natural units" (Evertson & Green, 1986). Their boundaries were usually demarcated by reference to time and/or
function. The contextual units were described in the discussion of observation as a contextualized process. A brief overview of the people and program units is given here preparatory to the discussion of the analysis of the data.

People

Betty

Betty was 22 years old. She was in her final quarter of physical education teacher education at The Midwestern University. She had attended college on an athletic scholarship. The end of the winter quarter preceding student teaching marked her retirement as a college athlete. In addition to student teaching in spring quarter, Betty also carried over one incomplete course from winter quarter. Just as she began student teaching she was notified that she had been incorrectly advised by the College of Education of the requirements for her to graduate. She was required to take another five credit hour course in order to graduate at the spring commencement, and fulfill her desire to graduate in four years. Betty taught each morning at Tiergarten, and each afternoon at a secondary school in the same school district. In addition, after school each day Betty coached the girls' freshmen softball team at the secondary school.

Bill

Bill was 39 years old. He had 17 years experience as a physical education teacher in the same school district, 15 years of which he had been at Tiergarten. He had been a cooperating teacher
for the past 14 years. Bill was exceptionally well qualified and held a doctoral degree. In addition to teaching at Tiergarten, Bill was a part-time lecturer in outdoor education at The Midwestern University.

**Michele**

Michele was 31 years old. She was employed as a part-time lecturer in physical education and motor development at The Midwestern University. Her previous experience included teaching physical education in elementary and secondary schools, and at another university. During spring quarter, Michele supervised Betty at both schools. In addition Michele was also supervising another physical education student teacher who was full-time at the secondary school.

**Dyad**

Betty and Bill made up the dyad. They interacted in a number of different ways including conferences, conversations, team teaching, observing each other teach, and participating in games.

**Triad**

Michele visited Betty on nine occasions including one brief visit to an intermediate grade field day. During six visits Michele observed Betty teach a grade 6 class and then held a conference. On the two other visits Michele held conferences during the planning periods. Bill was usually present at the conferences but occasionally left to attend the other school business.
Dr. Thomas

Dr. Thomas coordinated the student teachers in the physical education and motor development section at The Midwestern University. He conducted three briefing sessions with the students -- one at the end of winter quarter, one in Week 3, and the third in Week 8. Dr. Thomas also observed Betty teach once during Week 9.

Program

Subject matter units

Betty was responsible for planning and implementing a unit in which softball was taught concurrently with track and field to the intermediate grades for Weeks 1 to 7. The intermediate field days were held in Week 8, and adventure games were played in Weeks 9 and 10.

Betty assumed responsibility for primary grades in Week 4 and taught a ball handling unit. In addition she assisted with their field days in Week 10.

Weeks

The intermediate grades had one 50 minute period of physical education per week. The content of the subject matter units was scheduled on a weekly basis. For example, in Week 1 the pupils practiced timing and sprints, in Week 2 they worked on triple jump, long jump and hurdles, in Week 3 they ran sprints and practiced throwing and catching skills for softball.

The primary grades had two 25 minutes lessons per week.
Lessons

Each lesson was marked by distinct time boundaries, and a change of pupils. There was a five minute break between lessons.

Activities

Each lesson was composed of two or more activities. According to Doyle (1984) an activity was "bounded segment of classroom time characterized by an identifiable (i) focal content or concern; and (ii) pattern or programme of action" (p. 259). Further distinguishing features of activities included physical space in which the work occurred, the number and type of pupils, the props and resources used, and the expected behavior of the teacher and pupils. The activities in the intermediate grades were clearly identified through the concurrent teaching of softball, and track and field which required different equipment, and different working spaces.

Tasks

Tasks were set for Betty by Dr. Thomas, Michele and Bill, and communicated to her in both verbal and written form.

Data Analysis

The major research question addressed the changes in the teaching behaviors of the student teacher, Betty, during the ten week student teaching experience. A number of subquestions were used to delineate the framework of the study. The analysis of the data began with data collection, recording and storing in terms of
the natural units. More explicit details were required to answer the subquestions. Data analysis proceeded through a number of concurrent steps: (a) defining categories; (b) preparing single written records for each category; (c) constructing time matrices; (d) writing memos; and (e) repetition of the preceding steps. Each of these will be described.

Defining categories

Where possible the natural units were retained as the basic unit of analysis but often they required redefinition to provide more specific details about their internal configuration. Categories were developed using the principles of domain and taxonomic analyses provided by Spradley (1980). Domains were made up of three basic elements: (a) cover term, the name of the domain; (b) included term, the name for the smaller categories inside each domain; and (c) semantic relationships which linked the included term to the cover term. Spradley listed in types of semantic relationships:

1. strict inclusion: X is a kind of Y
2. spatial: X is a place for Y; X is a part of Y
3. cause-effect: X is a result of Y
4. rationale: X is a reason for doing Y
5. location-for-action: X is a place for doing Y
6. function: X is used for Y
7. means-end: X is a way to do Y
8. sequence: X is a step (stage) in Y
9. attribution: X is an attribute (characteristics) of Y

(p. 93).

Different groups of the semantic relationships were used to independently answer different subquestions. For example, the frame of reference for each member of the triad was constructed using strict inclusion, and attributes; eight relationships were needed to describe the context (cause-effect was not used); and all except attributes were used to describe the teaching behaviors of the cooperating teacher. The relationship of included terms and cover terms in a domain was diagrammed in a taxonomy where appropriate, for example, frames of reference.

Spradley further distinguished between three types of domains: (a) folk domains when all the terms came from the participants themselves; (b) analytic domains in which the researcher selected the terminology; and (c) mixed domains where folk terms were combined with analytic terms. In this case study analytic and mixed domains were most appropriate. For example, the description of the teaching behaviors of the cooperating teacher consisted of analytic terms, while the tasks of the student teacher included analytic and folk terms in a mixed domain.

Single written records

Integration of the data from the different data sources began with the writing of the expanded fieldnotes from the original fieldnotes and audiotapes. According to the requirements of each subquestion the expanded field notes were read to extract the
categories. A single written record was built up for each category, for example, reference to Betty as a softball coach was one category. This formed the basis of the single written record and was written in the right column of a two column page. Each extract was dated, source coded with page and line numbers, and color coded. For example, 1 April, FN, 23, 291 was an extract from 1 April from the expanded field notes (FN), page 23, line number 291, and was written in blue pen. Each other data source was then read and the pertinent extracts added to the left column of the single written record. For example, 18 March, ST 1, 24, 276, was an extract from 18 March from an interview (I) held with the student teacher (ST), page 24, line number 276. This was also color coded. The single written record therefore also served as a point of triangulation for the detection of sources of error (to be discussed later in chapter). An example of portion of a single written record for behavioral interactions is included in Appendix H (without color coding).

Time matrices, and role-by-time matrices

Since change was examined in the main research question and several of the subquestions time matrices, and role-by-time matrices were developed according to the guidelines of Miles and Huberman (1984). In a time matrix one or both axes have a time variable, for example, the schedule of physical education classes. In a role-by-time matrix the person undertaking a particular activity at
a particular time was noted. An example of a role-by-time matrix used to analyze lessons is presented in Table 2.
### TABLE 2
Role-by-time Matrix for the Intermediate Grades
for Week 1 of Student Teaching

<table>
<thead>
<tr>
<th>Day:</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wed.</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Grade:</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

Organizational/interpersonal
Instructional

<table>
<thead>
<tr>
<th>Homes</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>WARMUP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>jumping jacks</td>
<td>0</td>
<td>T</td>
<td>0</td>
<td>0</td>
<td>T</td>
<td>0</td>
<td>T</td>
<td>T</td>
<td></td>
</tr>
<tr>
<td>toe touches</td>
<td>0</td>
<td>0</td>
<td>T</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>T</td>
</tr>
<tr>
<td>butterflies</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>T</td>
</tr>
<tr>
<td>pushups</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>toe grab</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Major Ordering
BACKGROUND KNOWLEDGE
| news article | 0 | 0 | T | 0 | 0 | 0 | 0 | 0 | 0 |

Minor Ordering
jogging
| 0 | 0 | T | 0 | 0 | 0 | 0 | 0 | 0 |

Major Ordering

INTRODUCTION TO FIVE STAR TRACK AND FIELD
| introduction | 0 | 0 | 0 | 0 | 0 | 0 | 0 | T |
| field day    | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |

TIMING
| cost | 0 | 0 | 0 | 0 | 0 | 0 | T |
| handling | 0 | 0 | 0 | 0 | 0 | 0 | T |
| controls | 0 | 0 | 0 | 0 | 0 | T |   |

Minor Ordering

Note. 0=Betty observing Bill; T=Betty teaching.

The complete table is presented in Chapter 4.
A role-by-time matrix was constructed for the intermediate grade lessons each week to identify the activities and critical elements in the lessons, and any changes occurring within or between lessons. The subject matter on the lesson plan was plotted on the ordinate beginning with the warm-up activity at the top of the matrix followed in descending order by the other activities in the order in which they were taught. The days of the week, and lessons each day were plotted on the abscissa beginning with Lesson 1 Monday on the left against the ordinate and extending the Lesson 3 Friday on the extreme right. The researcher recorded whether Bill or Betty was the teacher. The framework of the matrix outlined in Table 2 is a portion of the complete matrix used in Chapter 4. The actual matrices were approximately 2 feet in width and up to four pages in length.

Memos

During the data collection in spring quarter the researcher was also enrolled in courses in qualitative research, and ethnography and sociolinguistics for which she prepared a number of papers. These ensured that the preliminary data analysis kept pace with the data collection, and served as memos. Miles and Huberman (1984) wrote that: "Memos are always conceptual in intent. They do not just report data, but tie the different pieces of data together in a cluster, or show that a particular piece of data is an instance of a general concept" (p. 69). The memos were shared with other members
of the courses and thus also became part of the check for sources of error. An example of a memo is included in Appendix I.

Repetition of the analyses steps

With each memo, and each subquestion the researcher re-read the expanded field notes and single written records. To this extent, the analysis embraced the principles of the constant comparative method of qualitative data analysis described by Glaser and Strauss (1967). They described four stages in the constant comparative method: (a) comparing incidents applicable to each category; (b) integrating categories and their properties; (c) delimiting the theory; and (d) writing a theory. The case study was designed to describe a student teaching experience and did not attempt to develop or test a theory. There was, however, constant comparison and integration of categories.

In summary, the units of observation served as the bases for recording and storing the data, and data analysis. While each process was described sequentially in conduct the situation concurred with that described by Glaser and Strauss where "earlier stages do remain in operation simultaneously throughout the analysis and each provides continuous development of its successive stage until the analysis is terminated" (p. 105).

Sources of Error

All research must attest its reliability and validity. This case study came under the broad umbrella of qualitative research, a paradigm in the process of becoming established in educational
research. There is a tendency in educational research to transpose the criteria for reliability and validity from the long established quantitative paradigm to the qualitative paradigm as demonstrated in the writings of Guba (1981), Guba and Lincoln (1981), LeCompte and Goetz (1982), and Lincoln and Guba (1985). While this transposition facilitates an understanding of the differing paradigms in what Shulman (1986a) has termed the "Great Conversation" (p. 9), writers such as Soltis (1984), and Smith and Heshusius (1986) have cautioned that the debate has focused upon methodology rather than careful examination of the underlying philosophies. Quantitative researchers hold a singular conception of truth. For qualitative researchers:

"Truth" can never be known. What the researcher and decision maker attempt to do is to collect sufficient and appropriate evidence to ensure that the description is as accurate as possible given the representational process used (Evertson & Green, 1986, p. 1650.

Furthermore, the qualitative-quantitative debate tends to assume that each side of the debate is homogeneous, that is, a criterion of reliability and validity is adequate for all types of research in the given paradigm. This is not the case in quantitative research, and is unlikely to be the case when the intricacies of the types of qualitative research become more evident.

In addition to the minimal criteria for case study research set by Lincoln and Guba (1985), a number of steps were implemented in this study to reduce the sources of error, and increase the accuracy of the final description, consistent with the notion of observation
as research and decision-making which was systematic, deliberate, and question driven. The steps included prolonged and continuous presence in the study site, multiple data sources and multiple methods of data collection, triangulation, member checks, peer debriefings, memos, reflexive journal, and an audit trail. Errors can occur in both the data collection, and data analysis. Some steps specifically addressed one or the other of these but many fulfilled dual roles.

**Prolonged and continuous presence in the school**

The first step is ensuring adequate data collection was for the researcher to be in the study site for a prolonged and continuous period of time. The student teacher taught on 40 of the possible 48 days of the experience, and the researcher observed all of these. Continued presence of the researcher reduced her obtrusiveness, and minimized her impact on the research environment. The student teacher and cooperating teacher were asked during their final interviews if they considered that the context had been affected by the researcher's presence. Neither considered that the researcher's presence had changed the environment. The cooperating teacher considered that the pupils were used to many visitors in the school and did not react to the researcher. The university supervisor was most affected because her intermittent visits did not allow her to become used to the presence of an additional person at conferences. She said she would have been more probing and more demanding if the researcher had not been present.
Multiple data sources and methods of data collection

Data was collected from a variety of sources and included the people (individually and collectively), program and context of the study permanent. The methods of data collection included observation to produce field notes, audiotape recordings (lessons, interviews, conferences, briefings, conversations), photographs (equipment), interviews (each member of the triad), journals (researcher and student teacher), and documents (university, school, and student teacher). The audiotapes were replayed by the researcher during the compiling of the expanded field notes. The decision rule during this process was, however, an arbitrary one in that only three replays were made. This occurred especially for audiotapes of the conferences conducted in the physical education office when pupils were lunching in the adjacent gymnasium and their noise masked the conversation of the triad. These incidents were minimal, and often forward processing of the tape revealed repetition of the discussion that was partially masked by the extraneous noises from the gymnasium.

Triangulation

Triangulation — comparison of data — was used in three main ways. The expanded field notes were the first instance of triangulation of the original field notes and the audiotapes. The second instance was the preparation of the single written records for each category used in the data analysis. The third instance was
to cross reference similar categories within single written records (see Appendix H for an example).

Member checks

Member checks occurred in three ways. First, prolonged presence in the school gave the researcher opportunities to confer with the subjects. Any aspects, especially American terminology, that were not clear in the preparation of the expanded field notes were discussed with either the student teacher or cooperating teacher.

Second, during interviews the researcher deliberately included questions in which she summarized and recapitulated previous answers given by the participants to test the adequacy of the researcher's summary.

Third, during data analysis and preparation of the written report, the participants read drafts of the frames of reference, description of the context, and the first draft of Chapters 1 to 4. Each member of the triad read her or his own frame of reference, made factual corrections, and then returned it to the researcher for revision. Each participant was given a copy of her or his frame of reference to retain for their own records. All revised frames were then distributed to all participants. Bill and Michele also read the descriptions of the context. Betty was not available at this time. Written feedback was given by Betty, Bill, and Michele on the frames of reference, and Bill and Michele on the context. When the drafts were returned to the researcher she read the members'
comments, compared them against the expanded fieldnotes, and adjusted the findings if appropriate. A major adjustment was the insertion of grammatical conventions such as punctuation into examples drawn from interviews and conversations to reduce the demands on the reader, and to avoid doing injustices to the members of the triad. Every endeavour was made to avoid distortion. This was similar to the reaction Dow (1979) experienced in her study graduate student teachers. (Thus the reader will note differences in the format of the example from the expanded fieldnotes in Appendix D, and the examples used in Chapter 4.) Finally, all three members read the first complete draft of Chapters 1 to 4. Michele responded with written information about her discussions with Betty at the high school thus expanding the description of the broad context while Betty and Bill verbally indicated that the draft was satisfactory.

Peer debriefings

Peer debriefings were held frequently but irregularly during the data collection phase with a fellow graduate student who was experienced in qualitative research. Data collection, preliminary data analysis, and interpretations were revised. During spring quarter the researcher was also enrolled in courses in qualitative research, and ethnography and sociolinguistics. Discussions in classes served as a further form of peer debriefing.
Memos were written in the form of papers for the aforementioned courses, and were discussed with members of the classes (see Appendix I). Additional memos were written in the form of entries in the researcher's reflexive journal, and early drafts of the dissertation.

Reflexive Journal

A reflexive journal was commenced two months before the student teaching experience commenced and continued through into the data analysis. It contained methodological notes, interpretive notes, and theoretical notes, and served as a record of decision-making during the study (see Appendix E).

Audit Trail

Finally, the report of the case study was submitted to an audit trail. Lincoln and Guba (1985) stated that the tasks of the auditor were to examine (a) the process of the inquiry, and to attest to its dependability (which they substitute for reliability in quantitative research); and (b) the product to attest that it was supported by data, findings, interpretations, and recommendations, and was internally coherent. While the researcher queried Lincoln and Guba's equating of qualitative and quantitative research, there was also acceptance on her part that the recency of qualitative research as a paradigm in educational research necessitated the exploration of the audit trail. Only by using such a tool will its value or otherwise be tested.
The audit trail was conducted in two stages. In stage one, the researcher approached a fellow graduate student in the qualitative research class, and discussed the audit trail. This person was majoring in movement arts, and had completed course work in qualitative research. She visited the researcher's home in Week 4 of the study, and spent three hours examining the data recorded and stored at that time, and after a period of reflection agreed to complete the audit trail. The second stage occurred when the first complete draft of the dissertation was prepared. All stored data, data analysis materials, and the dissertation draft were given to the auditor. This occurred concurrently with the reading of the dissertation draft by the researcher's committee, and this constituted a second form of auditing (see Appendix R).

In summary, inherent in observation as research and decision-making, was the need to minimize the sources of error both in data collection and data analysis. Each study has its own criteria for adequacy including the clarity with which the decision-making process is documented. The steps taken in this study included prolonged and continuous presence in the study site, multiple data sources and multiple methods of data collection, triangulation, member checks, peer debriefings, memos, reflexive journal, and an audit trail.

**Summary**

The purpose of this study was to describe the changes in the teaching behaviors of a physical education student teacher during a
ten week student teaching experience. Case study methodology was chosen as the most appropriate means to have continuous, close observation to detect change. The conceptual framework of observation as inquiry and method designed by Evertson and Green (1986) served as the basis for systematic, deliberate, question driven observation. In this chapter eight issues to ensure the adequacy of observation were addressed. They included observation as a means of representing reality, observation as research and decision-making, observation as a multifaceted phenomenon, issues in sampling, observation as a contextualized process, systems for recording and storing observational data, units of observation and data analysis, and sources of error.
CHAPTER FOUR

FINDINGS

The purpose of this case study was to explore the following question:

1. what were the changes in the teaching behaviors of a physical education student teacher over the course of a ten week student teaching experience in an elementary school?

This broad question generated a set of subquestions:

1. what did the student teacher engage in during the ten week student teaching experience?

2. at the commencement of the student teaching experience how did the student teacher learn the context already existing in the school?

3. to what extent did the cooperating teacher and/or university supervisor teach the student teacher about the context of teaching in that school?

4. who or what did the student teacher observe during student teaching and what were the consequences?

5. who or what did the student teacher not observe during student teaching and what were the consequences?

6. how and when did the student teacher implement the advice of the cooperating teacher and/or university supervisor?
7. what influence did the context have upon the student and how was the context influenced by the student teacher?

8. what were the outcomes of the student teacher maintaining or changing the context?

9. who were the members of the triad and what characteristics did they bring to the student teaching experience?

The answers to subquestions one to eight were dependent on an understanding of the characteristics of the members of the triad, and the context of the student teaching experience. Therefore subquestion nine is treated first followed by a description of the context, and then subquestions one to eight. Subquestion 8 can be viewed as the point of convergence of the elements of the case study.

The answers to each subquestion were illustrated by examples drawn from the data sources chosen to be representative of the data, and have been drawn from each type of data source.

When interviews and conversations are reported in the chapter the participant's first names were used, that is, Betty, Bill, and Michele. When the example included interaction with the pupils, formal titles were used as was the convention at Tiergarten, that is, Ms. Snow, and Mr. Stanley. Two small details should be noted. Mr. Stanley holds a doctoral degree but used the title, "Mr.", at school. Betty has been given the title of "Ms." as a part of her pseudonym.
To answer the major research question and the subquestions it was first necessary to construct a frame of reference for each participant. A frame of reference was a heuristic device developed in classroom discourse research to describe the interactions of the teacher, pupils, groups and materials. Weade and Green (1985) depicted two dimensions in a teacher's frame of reference: (a) a curricular and pedagogical frame which included knowledge, skills, experiences, and expectations appropriate to the work of a teacher; and (b) a personal frame which included "prior knowledge, specific abilities (e.g., cognitive, social, psychomotor, perceptual, and linguistic), experiences, beliefs, and preferences (values)" (p. 11). These two dimensions influence what can and will happen in the classroom.

Each frame of reference had three properties: (a) it was individualistic to the person; (b) it was dynamic and therefore subject to change; and (c) participants shared frames, or the frames differed, a situation termed frame clash (Green & Harker, 1982a, 1982b; Harker & Green, 1985; Weade & Green, 1985). Frame sharing and frame clashes may be overt or tacit.

Individual frames of reference were constructed for Betty, Bill, Michele, and the researcher. The personal, and curricular and pedagogical dimensions outlined by Weade and Green (1985) formed the two major domains. The components of each domain were derived from cover and included terms according to the principles of domain and taxonomic analyses suggested by Spradley (1980), and by
triangulating (a) what each said about herself or himself; (b) what they did such as writing or performing psychomotor skills; and (c) what they said about each other. Spradley listed nine possible semantic relationships between cover and included terms for domain analysis of which two were found to be appropriate: (a) strict inclusion (X was a kind of Y), for example, Betty is a kind of athlete; and (b) attribution (X was a characteristic of Y), for example, Betty was a very skilled athlete. A taxonomy was drawn for each participant to show the relationships between the terms in each domain.

In addition, to be consistent with Weade and Green's (1985) inclusion of expectations within the curricular and pedagogical domain, a description of a "good" student teacher and/or teacher given by each member of the triad was included in each narrative but not the taxonomies.

A feature for all the participants was the manner in which their domains overlapped individually and collectively in the student teaching context at Tiergarten. For example, Michele drew on her knowledge gained as a graduate student of physical education teacher education to conduct post-lesson conferences with Betty. Michele had obtained the knowledge in one domain, student, and applied it in another, university supervisor.

Each frame of reference was verified by member checks during the interviews when the researcher recapitulated information given in the interview via statements such as "Time for a recap, as I understand you..." (see interview schedules in Appendix J), and by
asking each participant to read their own frame of reference and report its accuracy or otherwise to the researcher. Then the participants were asked to read each other's frame of reference and again to report on its accuracy.

The frame of reference was not a complete biographical description of each participant since it only contained information specifically accessible in the data, including corrections and additions made during the member checks.

The frame of reference for each participant is discussed in the following order — Betty, Bill, Michele, and the researcher — focusing on: (a) the curricular and pedagogical domain; (b) the personal domain; and (c) the overlapping of domains for each participant. This is followed by a summary of the frame sharing apparent at the commencement of the student teaching experience. The discussion of frame sharing and frame clashes is presented in subquestion 8 as an outcome of the student teaching experience after the other subquestions have been addressed to contextualize the frames.

**Betty Snow**

Throughout the ten weeks of student teaching constant reference was made to Betty's "busy schedule." The curricular and pedagogical domain of Betty's frame of reference included: (a) student of physical education teacher education (PETE) and of a Basic Education Requirements (BER); (b) coach; and (c) job hunter. Her personal domain included: (a) athlete; (b) family member; and (c) social
life. Each of these will be described in detail, and placed in a
time matrix of three stages: (a) pre-student teaching; (b) student
teaching; and (c) post-student teaching. A summary of the taxonomy
and time matrix is presented in Figure 2. Solid lines in the figure
represent continuity through each of the stages while a dashed line
indicates discontinuity. The boundaries of each stage are marked by
the observation phase of the case study itself, that is, stage (b),
and significant events in Betty's life, principally retirement from
basketball, and graduation from college.
Figure 2. Frame of Reference of the Student Teacher
Curricular and Pedagogical Domain

Student

Physical Education Teacher Education

Betty was 22 years old and in her final quarter of study for the degree of Bachelor of Science in Education with a major in physical education. She had attended The Midwestern University for four years on a basketball athletic scholarship. Her first year at university had been "just an orientation to university" with major emphasis on the required BER courses. During second year she had undertaken the Freshmen Early Experience Program (FEEP) for one academic quarter and "mostly...observed" in a school setting; and commenced the series of physical education activity courses. Betty was exempted from softball and basketball because she had a schedule clash with basketball, and she had much previous experience and knowledge in these sports. In the activity classes Betty:

learned to teach people from the beginning. You learned to teach in progressions...If you have to teach somebody who doesn't even know the skill you have to break it down and simplify it (Interview, 18 March).

The third year of her program was what was known as the "science year" during which Betty studied in areas such as physiology of exercise, and kinesiology. This was also the year in which Betty commenced her studies in physical education teacher education taking the sequence of Introductory, Secondary, and Elementary core units. Secondary and Elementary cores were devoted to the teaching methodologies appropriate to pupils in the major divisions of the public school system. In fourth year Betty had
completed her BER courses and some other required classes including "history of sport, history of education, and a media class."

Betty had elected to gain certification to teach physical education for grades kindergarten to 12 inclusive. Therefore her student teaching took place in two school settings. Each morning she was at Tiergarten from approximately 8:00 to 11:25 a.m. In the afternoon she was at a neighboring secondary school in the same school district. At Tiergarten Betty commenced teaching track and field in Week 1, and softball in Week 3 to the intermediate grades. In Week 4 Betty began to teach a ball skills unit to primary grades. A detailed examination of the structure of the lessons will be presented later in this chapter. During Week 8 the intermediate grades had their field days and Betty was responsible for the conduct of the grade 5 field day. The primary grade field days were held in Week 10 and Betty was responsible for the first grade field day on Tuesday morning. In her teaching Betty said she was "big on technique." This was borne out in her thorough introduction to activities such as shot put and javelin, and for which Bill and Michele gave her positive feedback. She was aware that she lacked experience with young children, and a repertoire of lead-up drills and games suitable for elementary pupils.

Betty's experiences as a teacher were best summed up in an entry in her journal:

I really enjoy the kids. Teaching is a lot of fun. It is everything else that is hard like planning, management, behavior interactions (Betty's journal, 4 April).
When asked during the final interview what she considered to be her strongest point as a teacher, Betty replied, "I can relate to kids well." Her experiences with the pupils were not always enjoyable, or fun. She found grade 6 to be particularly demanding:

I really enjoy teaching the 4th grade class. They come into the gym and listen. They are just waiting for instructions. Whereas the 6th grade class on Mon. (Monday) are just wild (Betty's journal, 8 April).

Finally, during student teaching Betty was the subject of this case study. It was not Betty's first contact with research as she had assisted another doctoral candidate code video tapes of skill performances. Furthermore, during spring quarter she was requested to complete two surveys from the College of Education. She completed one during the final briefing session with Dr. Thomas, but did not attempt the second one.

Basic Education Requirements

Winter quarter was the main competitive quarter for Betty as a varsity athlete when her basketball team played matches against other varsity teams both locally and from other states. Betty therefore spent a considerable amount of time training, playing and traveling. Knowing that she would be student teaching in spring quarter Betty, during the winter quarter, had sought counseling and advice from her education advisers so that she could take a minimal academic load yet still meet the requirements to graduate at the spring commencement. Two weeks into student teaching, Betty was notified that an error had been made in assessing her credit hour requirement for graduation. She still needed another five hours.
Therefore Betty enrolled in a second level humanities subject for which she had the necessary pre-requisites. The classes were held two evenings per week from 7:00 to 9:30 p.m. and did not interfere with her coaching commitments (to be described later). This subject was in addition to an incomplete she was carrying from winter quarter.

Prior to undertaking student teaching Betty had made two decisions which determined the duration of her course of study. First, Betty decided that she wanted to graduate in four years:

that was a decision I had to make prior to graduation when applying for graduation. . .I could have gone the extra quarter or two to pick up my science minor or. . .the decision I did make was to graduate in four years and on my resume I would have completed in varsity sports. . .so I thought that would look a little bit better and then if I did hire for a job and they said we want you to teach science then I could go back and get my certification I'd have no problems (Interview, 18 March).

Secondly, Betty had decided against playing another varsity sport in spring quarter:

I was thinking about (softball) but I wouldn't be able to do it with student teaching 'cos I'd miss too many. . .days of school so. . .I accepted a coaching position (Briefing, 27 February).

Also, Dr. Thomas refused to give Betty permission to play softball.

According to the conditions of her scholarship Betty could have elected to study at the university for another one or two quarters, and still be supported although she would not be eligible to participate in basketball.

As student Betty said that she did enough to get by. At high school she had good grades but she had found college more
demanding. To play varsity sport Betty had to maintain a 2.0 GPA while the College of Education required a 2.25 GPA. With classes and training "the last thing she wanted to do was study at night." She got by with minimum study (Fieldnotes, 25 April).

Betty took the final examination in the HER course on the Monday evening of Week 10. She had some anxious moments until the results were announced one week later, and she received a passing grade. Student teaching was graded on a satisfactory/unsatisfactory basis. Betty received a satisfactory grade. Her degree was conferred on her at the spring commencement.

Coach

From the outset it should be noted that the researcher did not observe Betty during any of her softball coaching sessions or matches but the researcher did observe Betty interacting with her softball players when they acted as her field day helpers. The description of Betty as a coach was constructed from interviews and informal discussions. Michele did observe Betty's team play on at least three occasions.

The decision to include coach in the curricular and pedagogical frame resulted from comments by Griffin et al. (1981), and Lanier and Little's (1986) that student teachers often based their decisions to enter teaching on experience with children including camps and clinics.
Pre-student teaching

Betty had about five or six years experience coaching basketball at camps and clinics, both in her home state and interstate. She had been a head swimming coach for one summer in 1982, and had also coached a grade 7 softball team. The youngsters coached by Betty were from grades 7 through 12, and were grouped on psychomotor ability. Generally the youngsters were volunteers and as Betty reflected:

I'm used to the kids wanting to be in the situation and if they start to get out of line say, "hey, come on let's... you know, this is what you're supposed to be doing," and they do it (Interview, 6 June).

At the camps and clinics Betty had undertaken a variety of tasks ranging from organizing and distributing brochures, securing teeshirts for the participants, arranging guest speakers, and coaching at an activity station.

During student teaching

Betty's coaching position was arranged prior to her appointment to the school district for student teaching. In fall 1985 Betty was unsuccessful in obtaining the head coaching position for girl's softball in the school district but had later been approached to coach the freshmen. She had expected to be paid about $200 and was delighted to receive almost $600.

As coach Betty was responsible for "training the team and attending matches." Training appeared to be built around traditional skill drills such as throwing and catching. Betty batted for the fielders and went over double plays. The only
lead-up game Betty mentioned she used as a coach was one called "500" in which the players earned the right to bat by scoring points for fielding such as 100 points for catching a fly ball. The team was moderately successful winning seven matches and losing three when the season ended at Week 8 of student teaching. Betty arranged one additional scrimmage match on a Saturday when midweek matches were cancelled due to inclement weather.

When Bill asked Betty how she liked coaching Betty replied, "oh I like it. . .I mean even more so than regular teaching there are more interactions." Betty was particularly concerned that many of the players were from broken homes, had flunked some of their grades, and misbehaved on trips. She had tried to establish team rules similar to those she had experienced herself with her varsity basketball team. Betty also took it upon herself to organize an end of year social for the team.

**Post-student teaching**

Betty planned to spend some of her summer vacation coaching at camps and clinics.

**Job hunter**

Betty considered herself fortunate that:

I always knew what I wanted to do so when I first came to The Midwestern University I started in the program. I knew I wanted to teach and I knew I wanted to coach and that it was in the physical education area that I wanted to be in (Interview, 18 March).
She had begun her search for a coaching and teaching position in June, 1985 when she had spoken to the superintendent of the school district:

I would like to get into (that) school district...I was really interested in coaching for them 'cos...the number of kids that they have going through that school. They have over one thousand kids there...Their enrollment's over a couple of thousand kids. There shouldn't be any reason in the world why they can't stay competitive and they've had a losing record in the past few years...So I told Mr. ____ when I talked to him, that you know that I think I could help with the program. I love helping kids and I said I think I know a little bit about basketball (Interview, 27 February).

The school district to which Betty referred in this interview was the same one in which she completed her student teaching. There were three vacancies for physical education specialists in the school district for the 1986-87 school year. After her initial discussion with the superintendent Betty had submitted her resume, and this had lead to an interview and her subsequent appointment to the softball coaching position. Bill considered Betty very fortunate to have been interviewed and he remarked that the jobs in the school district were very highly sought after by several thousand applicants. In Week 5 Bill gave Betty a copy of an advertisement for head and assistant girls' basketball coaches in the school district. As he handed it to Betty he commented, "it's yours" but he did not clarify whether he was referring to the job, or just the advertisement. Betty checked with Bill about the need to resubmit her resume, and later wrote a letter re-affirming her interest in working in the school district.
At the time of the completion of student teaching no decisions had been made by the school district about whom they were going to hire for either the teaching or coaching positions. While Betty's first job preference was in this school district she had also made applications to two other districts. In addition she had been offered Graduate Teaching Associate positions to coach college basketball, and study for a Master's degree but she was "keeping her options open." Among other possibilities considered by Betty were working in a health studio, or a local recreation center, or even basketball officiating:

if I don't get a coaching job I'm really thinking about going into officiating not as a full-time job but as a part-time job because, especially in women's basketball, the officiating is horrendous and I was thinking about doing that on the side, you know, getting some high school games (Informal discussion, 21 May).

Betty's career as a college basketball player and her retirement will be discussed in detail under the role of athlete. It should be noted here that consistent with her decision to retire as a player she had turned down a job offer with a newly formed women's professional basketball league even though the one year salary of $25,000 was substantially higher than the $17,000 which was most she could expect as a first year teacher and/or coach.

**Description of a good teacher**

When asked what she would want to be like as a teacher at the end of spring quarter Betty replied:

I would want to be organized. I would want to gain the respect of my students. I would want them not only to respect me but to respect themselves and their peers...
If I'm not knowledgeable in an area we're doing a certain game or whatever I would make sure that I knew it or had gained some knowledge either through a book or through a class or something (Interview, 18 March).

Personal Domain

Athlete

Michele referred to Betty as a "very skilled athlete." Betty was well aware of her psychomotor talents where "...everything came naturally for me." The dominant sport in her life prior to student teaching had been basketball but she had also played softball and tennis, and swam competitively. Physical fitness was important to her.

Basketball

Betty began playing basketball during her elementary schooling. At an early age Betty had decided to pursue basketball in preference to swimming for which she had reached national championship qualifying times. She had been very successful as a basketball player at secondary school, and won an athletic scholarship to attend The Midwestern University. She was a member of the varsity team for four years. She played her last match in the NCAA final series at the end of winter quarter. Thus at the time of student teaching Betty had actually retired as a college athlete, a point of which she reminded herself when she was introduced to pupils at Tiergarten: she was rather than is a college basketball player.
There was some carryover of basketball-related activities into spring quarter, especially the public recognition, and injuries. As a college athlete Betty was publicly recognized. Many of the staff and pupils at Tiergarten knew her by sight and name. During Week 1 she was honored with a leadership award for her college team, and this was included as a news item in the principal's morning announcements at Tiergarten. She was sought after as a public speaker for end-of-season school sport team banquets. She had four such engagements either at night or on the weekend during student teaching.

Like many college athletes Betty had suffered her share of sports-related injuries particularly to her knees and ankles, and in her second to last college match she had been knocked unconscious. During student teaching Betty sought medical treatment for these injuries.

Retirement from basketball was a significant event in Betty's life. Several times in informal discussions and interviews she reflected upon her experiences as a player. Three experiences in particular were mentioned on more than one occasion. First, Betty had to learn a code of conduct to enable her to cope with the public recognition:

her mother was her greatest guide reminding (Betty) always that no matter what (Betty) did someone would be watching her even when she just wanted to be relaxed or go to parties or be normal (Informal discussion, 9 April).

After one of her speaking engagements, Betty commented:

somebody said the other night when I was speaking. . .It really must be nice to be popular and being. . .a
celebrity. . .and I said well it is but on the other hand it is frustrating. And this is when I was referring to student teaching especially. . .Everybody was you know watching me. . .and I just don't know. I take a resentment to that in some respects it's nice when. . .I do get around but on the other hand. . .you have to meet up to somebody else's standards because this is what they're thinking (Interview, 6 June).

And with this came the realization that:

I'm tired of being watched you know. I'm tired of everybody seeing where I'm going to mess up. . .I've had that pressure for too long and I know it and. . .I'm not going to deal with it just because I don't feel that I need to (Interview, 6 June).

Second, playing basketball had given Betty a chance to meet many people, and she felt that she was able to empathize across a broad spectrum:

the experiences I've gotten from traveling and everything else. . .I can relate to so many people just from experience. . .the frustration along with the high points (Interview, 23 April).

Betty was even able to see a positive side to her injuries which had been her worst times as a player. She went through the full range of emotions of anger, guilt and depression but all of these had helped her to learn about people. Even though Betty was an elite athlete she was sensitive to pupils who were not physically active. She wanted to be able to "reach both extremes," that is, the elite performers and those who were not athletically inclined. Bill and Michele both commented very positively on Betty's ability to coax some nonathletic, mildly disabled girls into regular physical education, and participation at the field days.

Third, Betty sought physical activity. During student teaching Betty was observed jumping rope, and performing situps, and she
spoke of running, swimming, and playing tennis, but she was unable to do any of these on a regular basis because of the demands of her time. Betty did, however, mention to both Michele and the researcher, that she would not miss the fitness routine associated with basketball.

**Softball**

As mentioned previously Betty had decided against playing college softball in order to complete her student teaching. Coaching the freshman team was only part of her commitment to softball. As with basketball Betty's performance record in softball was of a very high standard. In 1985 she had played in the national co-recreational softball championships. During student teaching Betty played on four co-recreational softball teams, one on each of Wednesday and Thursday evenings, and two on Friday evenings.

**Family member**

For most of the duration of student teaching Betty lived at home with her parents even though this meant a lengthy drive across the city each day. The traffic congestion and concern about being late prompted her to move in briefly with friends to be closer to the schools and the university campus.

Betty demonstrated positive concern for family life in two ways. First, in many informal discussions she spoke about the support she had received from her own family:

> you know I give my parents so much credit for that I think it all goes back to your background and how you've grown (Interview, 6 June).
Second, when talking about her softball team she was distressed by the problems several of her players were experiencing with their families.

**Social life**

Given the demands of her time to teach, coach, study, and play Betty also attempted to maintain some social life. She spoke about visiting friends to picnic and play tennis at weekends. Her social life was, however, far from happy at all times. Early in student teaching her boyfriend terminated their relationship.

**Overlap**

While it was possible to identify distinct items in Betty's frame of reference, the domains were not mutually exclusive. Her search for a job as a teacher and a coach is but one example of overlap. In this section the overlap will be explored in more detail. In some instances the overlap was coincidental, in other instances it was deliberately constructed by either Betty herself or Bill.

**Basketball player-student teacher**

There were four main situations in which Betty as a basketball player was linked to Betty as student teacher: (a) when Bill introduced her to each class in Week 1; (b) playing matches with the pupils; (c) teaching basketball skills to the primary grades; and (d) recruiting grade 7 girls for a basketball camp. Each of these will be discussed.
During Week 1 of student teaching Bill introduced Betty as a student teacher, and as a college basketball player. Bill then asked Betty to tell the class a little bit about herself such as the position she played, and her leadership award, or Bill asked her questions about college basketball so that the pupils gained some specific information. Bill set Betty up: (a) as a role model of a successful athlete; (b) to explain college scholarships; and (c) as an example of a person combining her career with her sports. Betty quickly entered into the spirit of the introductions and would ask the pupils which sports they played, who played basketball, and which teams they followed. In Week 2 Betty revised her name with some of the classes. The fourth grade class on Wednesday gave her a name which endured for the remainder of student teaching:

Betty . . . how many of you can remember my name
Pupils um (some guessed and some discussed)
Betty someone taught my name was Miss Basketball
Pupil Betty Basketball
Betty Betty Basketball
All laughed, and Betty told the students her correct name,
Ms. Snow (Fieldnotes, 9 April)

For several of the fourth and fifth grade classes Betty was "Miss Basketball." The fifth grade pupils shared this with Betty's softball team when they acted as her field day helpers in Week 8.

In addition to introducing Betty as student teacher and basketball player, Bill suggested to each of the intermediate grades that they might like to challenge Betty and him to play basketball matches at recess times. When asked in interviews about the introduction, Bill explained that he hoped using basketball would help Betty to become integrated into the school quickly, and that by
playing matches the boys would realize that she was a competent athlete. The boys were used to a male physical education teacher and this was one way Betty could gain acceptance by them. When asked about this in an interview Betty replied:

it really did work because the kids started talking right away instead of shying away so I think it was a good idea (Interview, 6 June).

The second overlap occurred when Betty had an opportunity to demonstrate her skills as a basketball player. First, there were the challenge matches suggested by Bill. Three matches were played in the first two weeks. Betty and Bill won convincingly. The fifth grade boys continued to seek a re-match during the next three weeks. This did not occur. Betty had only one morning recess break which coincided with the intermediate grades recess, and she left Tiergarten before the intermediate grades had their lunch recess. Challenge matches were played against the boys only.

From Day 2 to Day 6 at the beginning of the quarter Bill conducted intramural basketball matches before school each morning. Three fifteen minutes matches were played beginning at 7:30 a.m. Bill suggested that Betty ought to be involved in these matches but when he discovered that she was coaching the freshmen softball team he said she was probably getting sufficient contact with extracurricular activities. Betty usually arrived in time for the last intramural match each morning. On one occasion she played briefly with a boys' and then a girls' team.

During his introduction of Betty to one fifth grade class Bill had mentioned that Betty could perform a reverse slam dunk, a skill
performed only by elite male professional players. Throughout the quarter some of the fifth grade boys persistently asked Betty when she was going to do the reverse slam dunk for them. She kept stalling and saying, "before I leave." In an informal interview, the researcher asked Betty about the reverse slam dunk. She could not do it. This was not a surprising revelation since Betty is of small stature for a college basketball player and even though she had a very respectable vertical jump score of 23 inches this would still not enable her to touch the basket to perform the dunk.

Bill, with a behaviorist philosophy to teaching, also attempted to have Betty use basketball matches as reinforcement for the pupils. Bill frequently reminded Betty, "don't give anything away." Bill demonstrated this for Betty on Day 2 by telling a boy who was first to follow instructions to sit properly that he could select a basketball and a partner to play a match against Betty and Bill after class. They played against two boys and two girls for about five minutes.

The third instance of overlap occurred when Betty had to teach ball handling skills to the primary grades. During the first four weeks Bill taught the grade 2 classes to give Betty some ideas of the subject matter that was appropriate for them. Bill then allowed Betty to choose the content she covered in a ball handling unit for two grade 2 classes, and the kindergarten classes. Betty included the skill of dribbling, and had the pupils practice the skill individually, and then incorporated it into drills such as follow-the-leader, dribble tag, relays, and Ducks and Hunters. Bill
often suggested to Betty that she should have a "bag of tricks," that is, activities which could be used to gain the pupils' attention quickly and challenge them. Betty only utilized one: "Type-letter-to-Mom." For this the pupils sat on the floor and dribbled a basketball alternating hands while Betty dictated a letter to the rhythm of the bouncing balls. In the letter Betty mentioned that they were doing gym with their favorite teacher, herself. As she said this she looked at Bill and grinned, and he joked with the pupils about who was their favorite teacher. Generally, however, Betty's experiences as an elite athlete and as a physical education student teacher had not equipped her with activities for a "bag of tricks" as demonstrated by her reliance in the ball handling unit of activities demonstrated first by Bill. This was also consistent with the lack of lead-up games in her softball coaching.

A fourth point of overlap occurred when Betty, on her own initiative, continued her basketball camp coach involvement at Tiergarten by actively recruiting some very tall grade 5 and 6 girls to attend a basketball camp to be held in summer by Betty's former college coach. Several times during Week 1 Betty had commented to the researcher on how tall the girls were (taller than Betty herself), and how important it was to get them interested in basketball at this age. She wanted her former coach to see them. During Week 8 Betty gave one girl a brochure inviting her to a camp. Bill and Michele were both aware of Betty's recruiting activities.
Two other incidents also drew on Betty as a basketball player. First, when a new girl joined grade 5 Bill had Betty write a note welcoming her to Tiergarten. Bill knew the girl and her family, and knew that the girl would treasure a note from Betty. After the girl received the note Bill reported to Betty that it was displayed on a bulletin board in the girl's home. Second, after Michele observed Betty teach her first complete lesson on Day 5 of Week 1, she praised Betty's demonstration of with-it-ness commenting that it was a skill rarely executed by student teachers. Michele drew a comparison to Betty as a basketball player:

you know you were able to cope with what was going on plus the addition of things that happened so that was great. Just reminded me of when you are dribbling down the court, head up (Michele laughed), (another player) with her hand up for the pass, "No, no, not this time." (Michele laughed) (Post-lesson conference, 4 April).

Softball

As described previously Betty coached and played softball. In addition she taught softball both at Tiergarten and at the secondary school. Bill suggested that she use her position as coach to motivate the pupils:

you might tell them you're playing softball. . .you're coaching the softball. . .you might bring that in. Hey listen, I coach the girls' softball team at the high school and here's some of the things that they can do, the same skills. Then. . .when you see kids following directions out there, demonstrating the technique correctly, you can reinforce the technique. You can also say, "Hey, you guys ought to be on my softball team." 'Cos they really look up to you and any time you can bring those things into it you can directly help with management skills (Post-lesson conference, 15 April).
This advice was not acted upon. However, during the final softball lessons in Week 6 Betty participated in most lessons initially as pitcher to demonstrate to the students the type of pitching required, and then she batted and played in the outfield.

The most obvious overlap in Betty's softball occurred when she recruited the members of her freshmen softball team to be her field day helpers. Nine team members responded and acted as officials for track and field events as well as participating in some relay events with the grade 5 pupils.

Betty also sought assistance from Bill for suitable activities to include in her secondary school softball unit. He demonstrated a game with water balloons and parachutes which Betty subsequently used with moderate success.

"The slump"

During Weeks 5 and 6 there was a noticeable deterioration in Betty's teaching ability which in subsequent conferences with Michele and Bill was referred to as "the slump." While no cause-effect relationship can be established "the slump" occurred when Betty was experiencing severe headaches which were thought to possibly be a result of the concussion she suffered towards the end of her basketball career. She was absent from school twice because of the headaches. Betty sought medical attention because:

I wasn't feeling real well. I went to the doctor and it was like, you know, I said my patience and everything else. . .My fuse is just as short and, you know, my teaching, my management's going downhill, too. She said, "Well, that makes sense. . .you're not feeling well." So she says it's going to be like that. So I think after I
started feeling better I started to get back on track (Final Conference, 4 June).

"The slump" also coincided with her break with her boyfriend. A more detailed discussion of "the slump" will be presented in later in this chapter after the context of the student teaching experience, and Betty's teaching has been described in detail in answer to the subquestions of this case study.

During student teaching Betty certainly had a "busy schedule." Characteristically she saw it is a learning experience:

well you know in a way I mean it's. . .a lot of things that are happening but on the other hand I'm getting so much experience. I mean things that I wouldn't normally get (Informal discussion, 9 May).

Summary

By applying Spradley's (1980) domain and taxonomic analyses as an heuristic device it was possible to describe Betty's frame of reference in both the curricular and pedagogical, and personal domains. Betty was a student, coach, job hunter, athlete, and family member, as well as maintaining a social life. Many of these involvements had their origins prior to the student teaching experience, and would continue after it. During student teaching there was overlap of her involvements by virtue of Betty's "busy schedule," and by deliberate attempts to use her personal frame of reference to facilitate her development as a teacher, not always with the desired success. Student teaching itself was a time bounded experience but it was also marked by other significant
events in Betty's life such as her retirement as a college basketball player, and of her graduation from college.

**Bill Stanley**

The term Bill used to describe his work schedule was "flexible." An examination of his frame of reference via domain and taxonomic analyses demonstrated the diversity. Bill's curricular and pedagogical domain included: (a) teacher; (b) cooperating teacher; (c) school district employee; (d) university faculty member; and (e) professional developer. His personal domain included: (a) athlete; (b) family member; and (c) community member. While his time as Betty's cooperating teacher was bounded by the ten week quarter there were no other significant events to distinguish this quarter for him. Bill as teacher has been separated from Bill as cooperating teacher because Bill taught approximately one third of all the lessons even when Betty was present, and he was only a cooperating teacher for the morning session. He did not have a student teacher during the afternoon lessons. Therefore the time matrix has been omitted from Figure 3 depicting Bill's frame of reference. Bill, like Betty, had an overlap of his domains. Each domain will be discussed separately then in relation to others.
Figure 3. Frame of reference for the cooperating teacher.
Curricular and Pedagogical Domain

Teacher

Bill was 39 years old. He had 17 years of teaching experience in the same school district, and 15 of those years had been spent at Tiergarten. He had completed his own student teaching at a junior high school. His first experience with elementary pupils had been upon his appointment to the school district. Once in the school district Bill had realized the relationship between academic qualifications and the salary scale. The school district used a system of fee waivers negotiated with The Midwestern University so its teachers might obtain higher qualifications. Bill had attended university every quarter until he completed his doctoral degree ten years ago. Bill was certified in both physical education and health from kindergarten to grade 12, and in biological sciences grades 7 through 12. At Tiergarten he taught kindergarten to grade 6 physical education. In addition he deputized for the principal when she was out of the school.

Philosophically Bill aligned himself with applied behavior analysis. This was most evident in his frequent advice to Betty "don't give anything away." The following is a typical example of what Bill meant by this advice:

I react positively as a lot of times I ignore some things that really don't have to do with the safety of the students. Then I tell them I never give anything away, whether it's a chance to do this, or a game of basketball, or who gets the best ball in class. You know 20 of the balls might be brand new. Give them a chance to pick one of the first. Or, I try...to catch the students kinda like the One Minute Manager (Interview, 13 March).
Bill described his teaching as:

organized in terms of when the kids walk into the classroom we're ready to take off and do the activities. . . The kids help me set up the equipment and. . . I plan to teach at a fast pace (Interview, 13 March).

Betty frequently commented on Bill's organization particularly, "Bill's going to be thinking about all the little things." Michele, who had supervised at Tiergarten several times considered Bill "such a good teacher himself." He was committed to the improvement of his own teaching as had been shown in his doctoral studies in the area of teacher effectiveness. (It should be noted that details of Bill's doctoral dissertation have not been included in the reference list in order to retain confidentiality of his identity). When Betty observed Bill teaching she used a systematic observation schedule (see Appendix B) and Bill spent time after the lesson analyzing what he had done along with what he could do to improve. He lamented that many teachers did not analyze their own teaching even though they had 20 years experience.

For Bill active teacher participation in a lesson went beyond the presentation of drills and skills to the role of player be it in a hustle (run) across the playground from one work station to another, or as a team member. This was consistent with his belief that you play with, not against an opposing team:

all my drills I try to make gamelike so there's some consistency in the learning of the rules for the specific sport. Not much emphasis on winning or losing. . . We say. . . we are playing with somebody rather than playing against them. . . (if) you don't have anyone over there then you can't play the game anyway so you play with them. There's a lot of cooperative type games in the skill section of the curriculum (Interview, 13 March).
Furthermore, Bill was never satisfied with his teaching and was continuously looking for ways to improve. He considered himself to be creative, and each year undertook a special program to enhance physical education at Tiergarten. One year it had been a climbing wall in the gymnasium, and this past school year he had set up a very large adventure playground. For the next school year he plans to focus upon jump rope activities. The need to supplement the program stemmed from the fact that the pupils only had 50 minutes of physical education per week. Bill saw the provision of equipment for use at recess times, and the organization of intramurals around the normal school day as a means of extending the physical education program. During the study Bill supervised before school intramurals in Weeks 1 and 2, and lunch time track and field practice in Weeks 7 and 8. In addition, the physical education budget supplied a set of playground balls for each class for recess use. When the pupils completed their elementary schooling and moved on to the secondary schools Bill hoped that they would feel sufficiently comfortable with a variety of motor skills that they would participate in a sport of their choice at the secondary level.

There were, however, some areas which Bill was "not big on," mainly movement education and dance. He admired the music specialist who taught dance. Nor were all his feelings towards the pupils, and teacher education courses, always positive as shown by his remarks to Betty about a grade 2 class which had a history of disruptive behavior. He had exhausted his "bag of tricks" with the use of modeling positive behavior, and "not giving anything away":

Bill I was ready to kill out there
Betty I could tell
Bill I don't think in undergraduate teacher education programs they tell you it's okay to get mad
Betty Yeah
Bill and I think sometimes they bomb you with all those positive things and sometimes it comes right down to you got to get mad
(Post-lesson conference, 9 April)

Later, Bill added that he thought that the pupils needed to know how far they could go, and that there was a need for conflict management in the undergraduate program.

The best summary of Bill as a teacher was in the comparison he drew several times between a teacher and an air traffic controller:

it's the time. . .I feel this a lot in teaching that you're like an air traffic controller with all the different interactions that come with the kids (Informal discussion, 15 April).

Cooperating Teacher

Bill had been a cooperating teacher for 14 of his 17 years of teaching experience during which time he had supervised about 25 student teachers. He had become interested in this role through both the substantive content of his graduate studies, and participation in studies conducted by his fellow graduate students. The studies had enabled him to categorize his teaching behaviors and in this way he felt that he could make a contribution to the teaching profession, "I feel obligated to give the student teacher as good experience as I can" (Interview, 13 March). When Betty experienced "the slump" in the middle of the quarter Bill commented to her several times that he was concerned that she was not getting a good experience, or felt as excited as he did about teaching. The
ways in which Bill set about trying to provide "a good experience" will be discussed later in this chapter under the cooperating teacher teaching the student teacher.

Through his participation in graduate studies, and experience as a cooperating teacher, Bill had been trained in systematic observation of teaching behaviors. His most recent experience was in 1985 with the self-instructional module used by Dr. Thomas to teach university supervisors and cooperating teachers how to use the B-ALT:PE Observation Schedule (see Appendix B). Generally, Bill would have liked to have been more systematic in his observation and teaching of student teachers:

I wish I could have a plan to sit down and say okay during Week 1 I'm going to introduce (Betty) to this and this but the situations don't always jive on what happens and it's easier to do it going with the teachable moment, things that hit me that I see her doing, situations that the kids are in. . . (Interview, 9 April).

A major shortcoming of the student teachers from The Midwestern University with whom Bill had worked recently was their lack of subject matter knowledge especially for the primary grades. Michele wrote on her second member check that this was a problem of the university program, not the student teachers. In Weeks 1 to 4 Bill taught the grade 2 and kindergarten classes so that Betty could gain an understanding of appropriate activities for these grade levels.

The relationship of cooperating teacher to student teacher was not considered by Bill to be unidirectional. He looked forward to learning new ideas from the student teachers. He did suggest that cooperating teachers ought to be given more recognition by the
university and/or the school district perhaps via awards, or special contracts. However, when Michele praised him for helping Betty recover from "the slump" he downplayed his own role and stated that Betty herself had decided to do a better job of teaching. Betty acknowledged Bill's role in her development:

(Bill) has so much experience teaching-wise and knowledge-wise that he has the background and he can relate from where he started out to where he is now and he always seemed to give me little hints on how to make things easier for yourself (Interview, 6 June).

University faculty member

Since 1982 Bill had progressively increased his commitment to the university outdoor education and camps program. At the time of the study he was employed 20 hours per week in this role. He saw it to be equivalent to the hours he would have been required to allocate if he held a coaching position in the school district. A considerable portion of his work with the university was, however, conducted during the summer quarter when the elementary school was not in session.

School district employee

In addition to his role as teacher at Tiergarten Bill also served his school district in several other capacities. He was a member of the committee revising the graded course of study in physical education. He considered that he had an impact upon who was employed by the district to teach physical education:

I like to feel that I have some impact on who gets hired at the elementary level. Of the last four three of them I've...had a lot of association with them. They are
really good teachers. . .and when you demonstrate the skills. . .I'll go the whole wrap with you (Post-lesson conference with Betty, 29 April).

This latter point was supported by Michele. Bill also spent time explaining to Betty some of the service conditions in the school district such as insurance, salary scales and vacations.

In addition, Bill was a mentor to a beginning teacher in a nearby elementary school. He assisted this teacher with the intramural program and field days, and was available to answer her inquiries about teaching. This teacher had completed her student teaching with Bill 18 months previously. Bill had been particularly supportive of her application for a teaching position in the school district, and had spent several hours supporting her credentials with the school principal.

Professional developer

Bill contributed to the physical education profession in several ways. First, he conducted workshops both in his own and neighboring school districts to share his knowledge about elementary school physical education programs and particularly the place of outdoor and adventure education in the program. Over the course of each year he averaged about 12 to 15 workshops. Second, Bill contributed to the American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD) by writing for the national journal, and by presenting at the national convention. (It should be noted that Bill gave the researcher and Betty copies of some of his papers but they have not been included in the reference list for this study.)
Description of a good teacher

When Bill was asked to give a pen portrait of a really good student teacher he replied:

some of the best I've had. . .They're always happy, they're excited about the activities, they interact with the kids about the activity not only during the activity but outside of it in the playground, they take an interest in the kids, and whether they're good at the activity or not they motivate the students, they are prompt, and they dress the part and look professional not only in the way they look but the way they act (Interview, 13 March).

Personal Domain

Athlete

Bill was an active participant in indoor soccer, and co-recreational softball in his local community. This was not the same community in which Betty played co-recreational softball. When time permitted he also participated in outdoor activities such as rafting, rifle shooting, and wind surfing. Early in his teaching career he had coached tennis, football, and basketball, but then gradually progressed to what he termed "a more professional frame of reference."

Family member

Bill's wife and son attended a field day, and on one occasion he invited his son to spend the morning at Tiergarten. In one of the tag games he played with grade 2 he had the pupils perform simple mathematic problems to secure their release from "jail" after they had been tagged. Later he told the researcher that one of his
motive had been to test the pupils so he could draw comparisons with his daughter who was in the same grade level in another elementary school in the same school district.

Community member

The researcher became aware of Bill's role in his local community when he mentioned that he assisted with the before school intramural program at his daughter's school (see also his role as mentor as a school district employee) as a member of the PTA, and that one weekend he had conducted a cooperative games session for a local church group.

Overlap

Just like Betty, Bill experienced considerable overlap between his domains. The most obvious overlaps were teacher and cooperating teacher; both of these roles overlapped with school district employee; university faculty member and professional developer overlapped when the workshops were jointly arranged between the university and the school district; and, as previously described his family life was linked to his teaching and community involvement.

Bill was conscious of his visibility in the community. In particular he was vigorous in promoting Tiergarten. Several times during spring quarter children from other schools visited Tiergarten in preparation to being transferred there in the 1986-87 school year. Bill took considerable time to show the children what they could expect in the physical education program at Tiergarten. Later he described to Betty and the researcher some of his previous
involvements in public relations activities in the school and community. During one interview Bill reflected on his previous week:

I was just thinking the other day last. . .last Friday I started working with a kindergarten child. . .in the morning and I concluded with bank. . .executives. What more variation can you have in one day (Interview, 9 April).

Later Bill added:

This is a great job for me. Teaching has been very good to me (member check, 28 July).

**Summary**

Bill's curricular and pedagogical domain embraced teacher, cooperating teacher, school district employee, university faculty member, and professional developer. His personal domain included athlete, family member, and community member. These were extrapolated through application of Spradley's (1980) domain and taxonomic analyses. As was seen with Betty, the domains could be identified for discrete discussions but in daily life Bill's domains overlapped each other by choice and circumstances.

**Michele Felix**

Michele visited Betty on nine occasions including a brief visit to an intermediate grade field day. During six visits Michele observed Betty teach grade 6 classes, and then conducted post-lesson conferences. On the other two occasions Michele conducted conferences during planning periods. Michele also supervised Betty,
and one other student teacher, on a weekly basis at the secondary school.

Michele's curricular and pedagogical domain included: (a) lecturer; (b) student; (c) teacher; (d) cooperating teacher; (e) university faculty member; and (f) coach. At the time of the study Michele was only active as a lecturer. Her personal domain included: (a) athlete; and (b) family member. Figure 4 depicts Michele's frame of reference.
Figure 4. Frame of reference for the university supervisor.
Lecturer

Michele held a part-time lecturership in physical education and motor development at The Midwestern University giving her the equivalent of a three credit hour teaching load. In the spring quarter her duties included supervising the two student teachers, and assisting in the development of materials for cooperating teachers. In previous quarters Michele had taught folk dance, and supervised in the Developmental Movement Education program. Betty had taken the folk dance course with Michele 12 months previously.

Michele's preparation for her duties as university supervisor had included extensive studies in teacher effectiveness research (as a student), and training in the systematic observation schedule, B-ALT:PE Observation Schedule (see Appendix B).

Bill and Michele had worked together previously supervising student teachers. Bill described Michele as "truly teacher educator". Michele expected the student teachers to be self-responsible in meeting the tasks set for them during student teaching:

If it was a class and I specify something's to be done, it's done by a certain time, and I follow up on students who don't hand things in. I follow up on them and expect them to do them, but because this was student teaching... I felt like she had to show some professional responsibility (Interview, 6 June).

Michele indicated in the interview that at the beginning of student teaching she had explained to Betty the unit plans should be
submitted three days before they were taught. Betty did not meet
this requirement with all unit plans.

Michele was particularly concerned that the student teacher
plan thoroughly in advance of teaching lessons:

I would expect to see her lesson plans, (and) her unit
plans with enough time turn around for me to look at them
(and) for the cooperating teacher to see them and for (the
student teachers) to adjust the unit plans with our
feedback before they start teaching it. . .I'm really
particular about that. I get really cross with unit plans
late, or they can't change it again (Interview, 28 March).

University supervisor subsumed two responsibilities for
Michele. One was as a resource person able to contribute subject
matter knowledge and teaching strategies to the student teacher's
plans, the other was evaluator. The transition from resource person
to evaluator was not always easy. Michele was sensitive to the
extra demands the presence of the university placed on the student
teacher:

when you have me looking over your shoulder, and you're
worried about what I'm writing down on my sheet. . .you
get hassled and don't control as firmly as you should. .
that (is) reasonable (Post-lesson conference, 12 May).

For Michele, the presence of the university supervisor, and the
fact that student teaching was evaluated distinguished student
teaching from "normal" teaching and made student teaching somewhat
different:

student teaching isn't normal teaching. . .and you know
when you have people observing you all the time, when you
have people grading and checking what you're doing, it's
different (Interview, 6 June).
Student

Michele was pursuing doctoral studies on a part-time basis majoring in physical education teacher education, and applied behavior analysis. She was particularly knowledgeable in teacher effectiveness research literature. During conferences with Betty she would refer to various aspects such as Fuller's (1969) list of teacher concerns, or the research on established structures.

Teacher

Michele was 31 years old. She held a Bachelor of Education degree, and a Master of Arts degree. While she had completed her bachelor's degree she had taught part-time in an elementary school, and on completion of her degree she had taught for three years as a physical education specialist in a secondary school. While teaching secondary school, Michele also taught part-time in a teacher preparation college.

Cooperating Teacher

During her secondary school experience Michele had also acted as a cooperating teacher.

University faculty member

Upon completion of her Master's degree Michele had taught physiology of exercise, and sports sociology at the university level to physical education majors. Her duties had also included supervision of physical education student teachers.
Michele estimated that as a university faculty member, lecturer, and cooperating teacher, she had supervised approximately 40 student teachers over a ten year period.

Coach

In passing during one post-lesson conference Michele remarked that she had some experience as a coach at tennis camps, and as a school basketball coach.

Description of a good teacher

During the final conference with Betty and Bill, Michele described what she considered to be a good teacher:

you know my feelings about a good teacher is someone who gets turned on by what happens in their classroom. . .by the kids behaving well, by the kids improving on their skills. . .by the kids being positive in the class. . .showing positive approach tendencies in the playground, or when you have intramurals and that kind of thing. . .if that turns you on as a teacher you will become a better teacher. . .because you'll want to see more of that happening (Conference, 4 June).

Michele added (during the member check) that she considered supplying Betty with the list of management and instructional objectives, and referring to it frequently, also demonstrated her views of a "good" teacher. The list was revised with Betty at Tiergarten on the Monday of Week 7.

Personal Domain

Since Michele was not constantly at Tiergarten the researcher had less opportunities to interact with her, and therefore fewer
details were obtained about her person domain. Like both Betty and Bill, Michele was an active sportsperson, and a family member.

**Athlete**

Constant with her career in physical education Michele had participated in several different sports. During her visits at Tiergarten she mentioned playing co-recreational volleyball, and softball, both of which she played on the same teams as Bill. She swam regularly to maintain her physical fitness. She had also been a basketball player and now maintained her interest in that sport as spectator. In that capacity she had watched Betty play basketball, and hence related Betty's with-it-ness on the basketball court to her with-it-ness in the gymnasium (see Betty's Frame of Reference).

**Family member**

Michele was married to Dr. Thomas. They had a young child who accompanied Michele to the intermediate field day.

**Overlap**

The major overlap for Michele occurred particularly in her supervision of Betty at both Tiergarten, and the secondary school. Often the conferences at Tiergarten included reference to events at the secondary school, and both Betty and Michele indicated that events at Tiergarten were included in conferences at the secondary school.

During a conference with Betty, Michele drew on anecdotes from her own experiences as teacher, coach, and graduate student to
illustrate a point she was making. On several occasions she also drew on examples of applied behavior analysis procedures she used when disciplining her child.

As with Betty and Bill, Michele also experienced some overlap between observing softball lessons, and playing herself.

Michele's family lived in the same community as Bill and his family. They meet socially as well as playing in the co-recreational sports teams, and often used these occasions to discuss Betty's progress.

Michele was aware that her intermittent visits to Tiergarten restricted her knowledge about the physical education program on a day-to-day basis, and Betty's development as a teacher. She particularly sought details from Betty of lessons Betty had taught when Michele was not present, and of the circumstances in which there had been confusion between Betty and Bill over whether or not Betty had submitted all the required lesson plans.

**Summary**

Michele interacted with Betty approximately once per week at Tiergarten, and as often at the secondary school. Michele could be considered to be an experienced university supervisor who had worked in both school and college settings, and who was furthering her own development through her studies in physical education teacher education. Less information was obtained about her frame of reference because of the intermittent nature of her visits to
Tiergarten but from the information obtained it was clear that Michele's domains overlapped.

Researcher

Evertson and Green (1986) emphasized that the factors forming the frame of reference of the observer influenced decision-making as well as the observational process. A frame of reference was constructed for the researcher to be consistent with her philosophy of observation as inquiry and method, and as part of the context of the research event. The same heuristic device was used as for the members of the triad.

The researcher's curricular and pedagogical domain included: (a) student; (b) graduate teaching associate; (c) college faculty member; (d) teacher; (e) cooperating teacher; and (f) professional developer. In her personal domain was athlete. Figure 5 depicts the researcher's frame of reference.
Figure 5. Frame of reference for the researcher.
Curricular and Pedagogical Domain

Student

The researcher was a doctoral candidate majoring in physical education teacher education with minor studies in ethnography and sociolinguistics, and qualitative research. During spring quarter she participated in classes in each of these areas, and used them as opportunities to test ideas related to the study in the form of memos. Prior to undertaking doctoral studies, the researcher had completed one Master's Degree in Physical Education majoring in physiology of exercise, and a second Master's Degree in Education with a major in classroom studies. This latter degree had included courses in, and a dissertation using qualitative research methodology (Embrey, 1982, 1983b). She also had experience in the physical education degree designing an instrument for the systematic analysis of netball matches (Embrey, 1978).

Graduate teaching associate

The researcher was employed as a graduate teaching associate. During the study she supervised three physical education student teachers in elementary and secondary schools in a different school district from that in which the study was conducted. She attended briefing sessions and obtained copies of the handouts from the College of Education, and from Dr. Thomas in physical education. In the fall quarter preceding the case study, the researcher had been a subject in an applied behavior analysis study of tasks in student teaching but the results of the study had not been shared with her.
In addition, during spring quarter, the researcher was involved in writing computer course materials for undergraduate physical education student teachers.

**College faculty member, teacher and cooperating teacher**

To complete her doctoral studies the researcher had taken leave from her employment in a College of Advanced Education in Australia. In the College she had taught and administered extensively in courses in physical education for teachers, coaches, and sports administrators from developing nations. She had also undertaken and evaluation tour and fieldwork in two developing nations (Embrey, 1983a). The researcher had 14 years experience in teacher education, during which time she had supervised a considerable number of physical education student teachers. Prior to that she had taught in secondary schools for seven years during which time she had been a cooperating teacher.

**Professional developer**

In Australia the researcher had considerable experience lecturing in coach education courses conducted outside of her employment.

**Personal Domain**

**Athlete**

As a physical educator the researcher was committed to regular physical exercise. Like Betty, the constraints on her time during spring quarter limited her to minimal jogging. Her previous
experiences included competitive swimming, netball, softball, squash, and aerobics. She had coached swimming, netball, and softball at the secondary school level.

During the study, Michele invited the researcher to play in the same co-recreational softball team as Michele and Bill. The researcher played only one match in the last week of the study, but became more involved in the summer quarter.

Overlap

Like the members of the triad, the researcher experienced considerable overlap especially of student and graduate teaching associate. She completed most of her supervision in the afternoons after she left Tiergarten, or when the physical education program at Tiergarten was suspended for other school activities such as a drama production in the gymnasium. The researcher did not discuss her study with the student teachers she was supervising. Betty was aware of the researcher's supervision duties and inquired politely after her peers but the discussions were kept to a minimum. These conversations, and the briefing sessions conducted by Dr. Thomas, and attended by both Betty and the researcher, were audiotaped. No reference was made to the research project during the briefings, and the researcher interacted with her own supervisees rather than Betty.

The researcher's participation in university courses was particularly useful as a form of peer debriefing, and for the discussion of memos.
Another point of overlap with bearing on the study was the researcher's prior contact with each member of the triad. The researcher had supervised Betty briefly during her physical education Secondary Core field experience 12 months previously but Betty had been traveling with the university basketball team for most of the field experience and had completed the time requirements under the direction of a cooperating teacher, not the researcher. The researcher had watched The Midwestern University Women's Basketball team, including Betty, play twice, once in winter 1985, and once in winter 1986. The researcher had supervised one student teacher at Tiergarten in the preceding winter quarter, and had meet Bill during supervisory visits. Michele and the researcher had worked together on a community seminar in 1982, and had studied one course together in 1985. They had meet socially but infrequently, and contacts were minimal during the study period.

Summary

The researcher was present at Tiergarten on all occasions when Betty taught but did not attend on two days when Betty did not teach. The researcher had prior contact with all members of the triad but during the study restricted contact where possible to only the study. Concurrently with the study the researcher was supervising student teachers in another school district, and thus had access to all the materials supplied to university supervisors. In addition, the researcher participated in academic courses which
played an important part in peer debriefings and preparation of memos.

Shared Frames

Betty, Bill, and Michele shared several aspects of their frames of reference. In the curricular and pedagogical domain they studied physical education teacher education at The Midwestern University, and Bill and Michele had pursued graduate studies in the area. While they were at differing stages of their student and teaching careers they had each recently been trained in the systematic observation of physical education lessons, and were concerned with providing pupils with high levels of activity by utilizing effective teaching strategies. They each had a specific interest in the teaching of physical education in the school district in which Tiergarten was located — Bill as an employee and resident, Michele as a resident and frequent university supervisor, and Betty as a coach and prospective employee.

Participation in sport was the main shared feature of their personal domains. During the course of the study each was actively involved in co-recreational softball. They did not overtly discuss their participation but it did provide them with a tacit shared understanding of sport. Betty's experiences in college sport were different from those of Bill and Michele and perhaps limited their ability to empathize with Betty in her immediate post-retirement period.
Context

Context is more than the physical setting. It includes the interaction of people with each other, and with the physical setting. Four aspects of the context will be discussed: (a) the school; (b) physical education program; (c) school district; and (d) university. Most attention was given to the first two as the local context, and to their relationship with the latter two, the broad context. An artefact of the research was the designation of Tiergarten as local context for Betty and Bill, while for Betty and Michele the secondary school was also part of their local context.

Tiergarten Elementary School

Tiergarten Elementary School opened in 1972. It was one of seven elementary schools in a suburban school district in a midwest state. The school district had two middle schools, and one high school. Approximately 7,500 pupils were enrolled in the district. The majority of pupils came from white, middle to upper class homes. Tiergarten was surrounded by single family homes. Nearby was a country club with a golf course. Quite often adults were observed walking, jogging, and cycling in the streets around the school.

The enrollment in Tiergarten at the time of the study was 571 pupils. The pupils were divided into two main groups: (a) primary for kindergarten to grade 3; and (b) intermediate for grades 4 to 6. There were three classes at each grade level, and class sizes ranged from 24 to 32 pupils. Less than one percent of the pupils
were nonwhites. There were 24 classroom teachers, including Bill, the physical education specialist, and ten support staff plus administrative staff. The support staff formed Pupil Personnel Teams.

The pupils and teachers were accommodated in one building. When the school first opened it had functioned as an open plan school but now had concertina doors dividing the space into classrooms which were called "pods." The primary grades were located on the north side of the building, and the intermediate grades on the south side. In a central area between the two were more pods, plus the library, computer laboratories, and the general administrative area. Corridors ran the full length of the building on either side of the central block. The pods were accessible from the two internal corridors, and the outside playgrounds. Overall, the physical plant was impressive and highly indicative of an affluent neighborhood.

During the study, Tiergarten was visited by a member of the judging panel for the Elementary School Recognition Program.

**Physical Education Schedule**

The intermediate grade pupils had one 50 minute lesson of physical education per week. The primary grade pupils had two 25 minute lessons per week. The same two grade 2's attended on Wednesday and Thursday each week. Physical education was cross set on the specialist schedule with music, art, and library. There was
a five minute break between lessons. The morning schedule in which
Betty participated in presented in Table 3.

**TABLE 3**
The Morning Schedule for Physical Education Classes
at Tiergarten Elementary School, Spring 1986

<table>
<thead>
<tr>
<th>Time (am)</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday Grades</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-9:20</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>planning period</td>
<td>kindergarten</td>
</tr>
<tr>
<td>9:25-10:15</td>
<td>5</td>
<td>5</td>
<td>planning period</td>
<td>planning period</td>
<td>5</td>
</tr>
<tr>
<td>10:20-11:10</td>
<td>6</td>
<td>6</td>
<td>2a 2b</td>
<td>2b 2a 6</td>
<td></td>
</tr>
</tbody>
</table>

**Program**
The school district had a *Graded Course of Study (for) Physical Education, K-12* from which Bill developed the program at Tiergarten. In a printed description of the program Bill identified three main components: (a) instructional, the regular activities conducted during the physical education lesson; (b) intramural, all other supervised physical education activities under the direction of the physical education teacher; and (c) motor development program for primary children. The researcher observed the first two but not the third which was not operative during the study.

The instructional program for spring quarter for the intermediate grades included softball, track and field, and
adventure games. The primary grades were taught ball handling skills, and introductory track and field.

For both grade levels the instructional program culminated in field days. The intermediate grade field days were held in Week 8, and the primary field days in Week 10. Each intermediate grade level had one whole day, while each primary grade level had half a day for field day. The field days consisted of a series of track and field events plus novelty events drawn from other sports such as softball. The intermediate grade pupils entered a set of number of events for which they earned individual prize ribbons, and points for the class in grades 5 and 6. The primary grade pupils rotated around ten activity stations earning one prize ribbon for completing all ten events, and a second ribbon for participation.

The intramural program supplemented the instructional program. During spring quarter the pupils participated in basketball, and track and field intramurals.

**Facilities and equipment**

Physical education was very well provided for at Tiergarten. The gymnasium was located at the eastern end of the building and was directly accessible from the internal corridors.

Two walls of the gymnasium were decorated with a mural of a mountain to which were attached blocks so the pupils could participate in simulated mountain climbs. The other two walls had numerous bulletin boards with information about the program. Two
bulletin boards displayed the records for track and field, and bore the title, The Midwestern University Five Star Track and Field.

 Numerous climbing ropes, a cargo net, and a set of roman rings were suspended from the ceiling of the gymnasium.

 The floor was a mosaic of colors and markings. The most prominent markings were six rows of seven evenly spaced colored squares, or "homes." Each home was numbered, and the numbers matched other numbers on circle and line markings. At the beginning of the school year each pupil was allocated to a home. The routine warmup at the start of each lesson was performed on the homes, and groupings of pupils for teams began with their home groupings. Other markings included a basketball court, and various patterns for hopscotch. A small but significant floor marking was the rectangle directly outside the physical education office which was the "time out" box. An egg timer was located on the window ledge adjacent to time out so the pupils could time the duration of their stay in the box.

 Off the west side of the gymnasium were the physical education office, an equipment store, and a table store. There were three desks in the physical education office, one each for Bill, Betty, and the researcher. Above Betty's desk was a set of bookshelves containing a variety of physical education texts, and a set of videotapes. Approximately half of the office was a shower recess which was used to store empty milk jugs. The pupils brought the milk jugs to school for Bill to use in his outdoor education camps in summer. In return for the jugs Bill gave the pupils small
plastic novelties. The delivery of milk jugs and collection of novelties operated on an honor system. Bill had his own telephone in his office.

The equipment store was crowded with a huge variety of sports and adventure equipment, much of which Bill had made or improvised himself.

The gymnasium also served as the lunchroom from 11:10 a.m. till approximately 12:30 p.m., hence the table store. The kitchen was accessed off the gymnasium, as were the offices of two of the special staff members. Pupils continually entered and left the gymnasium to enter these offices while physical classes were in progress but were not disruptive. In addition the gymnasium was used for special events such as drama productions, choir, and parent meetings.

The outdoor facilities were designed to "encourage the pupils to be active participants" (submission to the Elementary School Recognition Program). There was an extensive grass area with a lacrosse pitch, two soccer pitches, one football field, and two softball diamonds. Two basketball courts were located on the blacktop area along with several pieces of climbing apparatus. Between the blacktop and the grass was an extensive set of climbing apparatus surrounded by safety matting, and tanbark. In addition, a running track was painted on the blacktop around the carpark. The gymnasium opened onto pathways around the carpark.
Established structures

The physical education context was not limited to the program and physical plant, it also included a number of established structures, or ways of behaving in relation to the program, plant, and people. Prominent among the established structures were the homes (and warmup), and time out box. Others included: (a) hustling (or moving very quickly between venues and equipment); (b) lining up to enter and leave the gymnasium; (c) Bill (and eventually Betty) lowering their voice to speak very quietly to gain the pupils' attention; (d) "paddling" primary pupils who had birthdays with soft bats; (e) a system of gym helpers who regularly came to the gymnasium to see Bill and to help set up equipment; and (f) Bill's policy "don't give anything away" based on applied behavior analysis principles of consequences reinforcing behavior.

School District

The school district was located in a suburban area experiencing a rapid growth in population and industry. The school district had ten schools operating during spring quarter 1986, and two more were under construction. The links between the schools and the school district were clear. The most obvious link was Betty teaching at two schools, and coaching at the high school. Only those links directly related to the case study will be included here.

The graded course of study mentioned previously was prepared by a team of physical education teachers representing all schools in
the district. It was under revision, and Bill was actively involved with the committee.

When the pupils completed their elementary education at Tiergarten they transferred to the middle schools, and then the high school. Bill drew on this link to recruit high school pupils to be helpers on the field days. Betty had responsibility for recruiting the helpers for the grade 5 field day, and she drew on her high school freshmen's softball team. The intermediate grade field days were conducted at the high school track.

Bill acted as a mentor for a first year physical education teacher at another elementary school in the district. There appeared, however, to be no direct contact between Bill and Betty's cooperating teacher at the high school, except through Betty and Michele. Betty and Michele discussed both schools in conferences they held in each school. Betty was part of two dyads, and Betty and Michele were part of two triads.

The school district was important to Betty because she had applied for a teaching-coaching position. There were three vacancies for physical education specialists. Betty had been interviewed prior to student teaching, and this had resulted in her obtaining her softball coaching position. In her first weeks at Tiergarten she asked Bill if he had heard any feedback from the interview but he was noncommittal. Bill did make it quite clear that he had an impact on who was hired in the district. To secure his support Betty would have to prove to him that she was very serious about teaching. After an unsatisfactory start with grade 4
in Lesson 1 Week 5, Bill had taken over and taught the grade 5 in Lesson 2 on Monday. Before the grade 6 lesson Bill commented to Betty:

I'm a bit worried about you. From the first class you're up and you take a dive this morning, and you're down at the bottom here. That was your worst class this morning. Ask yourself, "Are you getting any sense of value? Well, my life depends on this. I'd better start doing a well prepared job." Because...if you're not a number one teacher when you come out of here, I'm not going to recommend you. Okay?...If you don't demonstrate to me that you're a teacher who belongs in (school district), I'm not going to recommend you. The way that you can get that recommendation is to keep improving every week. (You've) got the potential to do it.

One further aspect of the context was also revealed to later have an impact on Betty. During spring quarter a physical education teacher from a third elementary school was charged with sexual imposition of pupils at his school. All the teachers at Tiergarten were disturbed by this since they knew the teacher and found the accusations difficult to accept. Bill was a close friend of the teacher. Michele and Dr. Thomas became close friends during spring quarter. Dr. Thomas was interviewed on the evening television news about the implications for physical education teachers who must physically contact children to support them in gymnastics and other sports. Michele discussed the situation with Betty's cooperating teacher at the high school on Thursday of Week 4, and Bill discussed it with Betty on Friday, after which Betty said she now understood what had upset Michele the previous day. During her supervisory visit on Friday, Michele gave Bill a photocopy of an article discussing physical contact between teachers and pupils, and this
was copied and distributed to all teachers at Tiergarten. Later in
Week 5 Betty sensed a deterioration in her relationship with Michele
and attributed it partly to the sexual abuse case, in addition to
confusion over the requirements for the high school unit plans:

maybe this stuff with (the sexual abuse case) has really
gotten to her or something because when she was at (high
school) she was going off with (high school cooperating
teacher) talking about it. . .(Michele) really got upset
with that. And she was just like real short, you know,
with me. The thing with the unit plan and stuff. I told
her, I've gotten the block plan done, and she goes well,
"I'd like to see it." And, I said, "Okay" (Post-lesson
conference, 29 April).

In this post-lesson conference with Bill, Betty continued to
discuss the confusion over the unit plan. In the final interview,
Betty again referred to the change she sensed in Michele at the time
the sexual imposition case became public through the news media.
She also added, that the day Michele discussed the case at the high
school, Betty had tried unsuccessfully to notify Michele that she
(Betty) was not teaching, and would be leaving the school early to
go to a match with her softball team. These events also coincided
with "the slump" in Betty's teaching, and will be elaborated upon in
the discussion of the changes in Betty's teaching behaviors.

It should also be noted that the researcher had supervised in
the winter quarter in the school where the sexual imposition charges
were laid, and she was more informed about the case than Betty, so
probably took more interest in it.
The Midwestern University

There were several links between The Midwestern University and Tiergarten specifically in physical education.

First, and most obviously, Betty was a student teacher from The Midwestern University and was supervised by faculty from there. Tiergarten had hosted physical education student teachers for 14 years. Michele had supervised at Tiergarten several times previously.

In addition, Bill was a part-time faculty member in outdoor education which was part of the larger School of Health, Physical Education and Recreation. All the participants in the study had studied at The Midwestern University.

The Five Star track and field at Tiergarten was also linked to The Midwestern University through the obvious display on the record bulletin board. In addition, the manual from which Betty developed her unit plan and content was published by the physical education teacher education section at The Midwestern University. Tiergarten had been one of the schools used by The Midwestern University in pilot tests to develop the standards for the Five Star Award Scheme which was highly consistent with the applied behavior analysis philosophy of the physical education teacher education program. In the scheme the pupils earned points for their performance in each track and field event. According to the number of points earned pupils were awarded a certificate bearing up to a maximum of five stars. The specialist music teacher at Tiergarten was working with Bill and a faculty member from physical education teacher education
to write a computer program for the scheme. At one point Bill suggested to Betty that she borrow more equipment from the university but she was unable to contact the appropriate person to arrange this.

Summary

The context in which Betty undertook her student teaching experience included the local physical education context at Tiergarten Elementary School in spring 1986 which was embedded in the broader school district. Events in the school district affected the context at Tiergarten. The broad context also included direct people and program links with The Midwestern University in supervision, and through the content Betty taught to the pupils in track and field.

The Student Teaching Experience

In this section the first subquestion will be discussed:

1. What did the student teacher engage in during the student teaching experience?

The analysis of the student teaching experience began with identification of the natural units of organization of the experience, and their relationships. The natural units were distinguished by task, time boundaries, grouping of people, and physical resources. The analysis moved progressively from the largest to the smallest units based on time, that is, from student teaching per se to the units within student teaching as a learning experience, and the units within student teaching as co-teaching.
These latter two terms originated in the Student Teaching Handbook of The Midwestern University (see Appendix J). This approach facilitated detailed descriptions of each unit, and also demonstrated how the student teacher changed from student to teacher.

**Student Teaching**

The principal task of the student teacher was to earn a satisfactory grade to qualify for the undergraduate award, and state certification. This task was presented to the student teachers at the briefing session conducted by the coordinator of student teachers from the College of Education, and reiterated to the physical education student teachers at their briefing session by Dr. Thomas. The grading system for student teaching was satisfactory/unsatisfactory.

In addition Dr. Thomas emphasized that the physical education student teachers should aim for the best possible recommendation from their university supervisor and/or cooperating teacher to support their applications for employment. At the briefing Dr. Thomas read two sample recommendations to the student teachers, one reporting on a dismal experience, the other on a very successful experience which lead to the student teacher gaining a job immediately upon graduation. Unbeknown to Betty, the second recommendation was that of the teacher for whom Bill was a mentor, and whom Bill had supported vigorously in her application to teach in the school district (see Bill's frame of reference). Since Betty
had already applied for a teaching and/or coaching position in the school district, her task was to gain a satisfactory grading on her recommendation. She was unsuccessful in her job application, a point which will be elaborated upon later in the discussion of frame of sharing, and frame clashes.

The time boundaries of student teaching were set by the academic calendars of The Midwestern University, and the school district in which student teaching took place. For Betty, these calendars coincided. (This was not the case with all the school districts used by The Midwestern University.) The time boundaries divided student teaching into three distinct stages: pre-student teaching, student teaching, and post-student teaching.

**Pre-student teaching**

Pre-student teaching in the broadest sense could be regarded as all prior undergraduate teacher education, and especially the Introductory, Secondary, and Elementary core courses Betty had studied in physical education. Dr. Thomas referred to these in the briefing session:

> theoretically this (student teaching) is the culmination of the core experiences for you so I think from these you've got an idea of what we expect from your performance in the cores. ...Hopefully, you'll be better and do a more sophisticated job in the student teaching. ...certainly a high performance (Briefing, 6 March).

Betty's recollections of the core courses were described in her frame of reference, and the historical setting of the event.

Specifically for the purposes of this case study pre-student teaching referred to the briefing sessions conducted by the
coordinator of student teaching from the College of Education, and Dr. Thomas on 6 March, and the preliminary discussions and interviews between Betty, Bill, Michele, and the researcher.

**Student teaching**

Student teaching was bounded to spring quarter 1986. It commenced on 31 March and concluded on 4 June, a period spanning 48 week days. The natural units in the quarter were weeks, and days. In addition to their calendar occurrence, they also marked specific program units. The physical education program was planned on a weekly basis for the intermediate grades, and Betty "blocked" her unit plan in weeks. Each week had specific subject matter foci.

Betty and Bill attended Tiergarten on a daily basis. Betty attended Tiergarten on 42 days, and taught on 40 days. The difference between the total, 48 days, the number attended, and the number of days on which Betty taught was due to: (a) one public holiday; (b) two absences for illness; (c) three whole days spent at the secondary school; and (d) days when Bill was absent. Table 4 summarizes Betty's attendance at Tiergarten, and notes the variations from the five day week.
TABLE 4

Student Teacher's Attendance at Tiergarten Elementary School

<table>
<thead>
<tr>
<th>Week</th>
<th>Number of days Betty attended</th>
<th>Variations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Bill at national convention; substitute teacher Thursday, no classes Friday</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>Betty absent Wednesday, illness</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>Bill absent Thursday, substitute teacher</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>Betty absent Monday, illness</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>Intermediate grade field days</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>Public holiday Monday</td>
</tr>
<tr>
<td>10</td>
<td>3</td>
<td>No physical education classes Thursday and Friday</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>42</td>
</tr>
</tbody>
</table>

The first whole day Betty spent at her secondary school was the Friday of Week 2. Bill attended a national convention on Thursday and Friday. A substitute teacher taught the classes on Thursday. On Friday the day was devoted to parent-teacher conferences at Tiergarten and there were no classes. The second and third whole days occurred during Week 8. Intermediate grade field days were held on Monday, Wednesday, and Thursday, and Betty was with
Tiergarten pupils until 2:00 p.m. The full days at the secondary school were to insure that she spent an equitable amount of time in each setting. There were no physical education classes at Tiergarten on Tuesday because there was a music festival. Bill taught the classes on Friday morning.

The term day has been used even though Betty normally attended Tiergarten from approximately 8:00 a.m. till 11:25 a.m. In addition to the variation noted for Week 8, Betty also spent a longer period of time at Tiergarten each Friday when Michele held post-lesson conferences, and during Week 7 when Betty assisted Bill with the lunchtime track and field intramurals.

Post-student teaching

Post-student teaching was designated as the period after Betty taught her final lesson at Tiergarten on Wednesday of Week 10. Physical education classes were not scheduled for Thursday or Friday of that week. On Thursday, Betty spent the morning at the secondary school, and lunched with the physical education, music and art teachers from Tiergarten. On Friday she attended the final interview, and a picnic with the physical education majors at The Midwestern University. It should also be noted that Betty and the researcher remained in contact during the summer quarter to exchange documents, and complete the member checks.

Student teaching as a learning experience

A distinction can be drawn between student teaching as a learning experience, and student teaching as co-teaching. The
boundary between the two types of experiences should, however, be considered analogous to the biological structure of a semi-permeable membrane which allows a flow back and forth between contents on either side of the membrane. Table 5 summarizes the distribution of Betty's observation and teaching sessions.

Two sets of experiences involved Betty a student of the teaching-learning process. They can be characterized as: (a) not directly involving school pupils such as briefings, conferences, and research; and (b) directly studying pupils, teachers, and subject matter. Each experience had its own task, subject matter, grouping, and physical resources.
### TABLE 5

Distribution of Observation and Teaching Sessions for the Student Teacher

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Day</th>
<th>Co-teaching Lessons</th>
<th>Student of the teaching-learning process</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Pre-student teaching -- Winter Quarter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 February</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27 February</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 March</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 March</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student teaching -- Spring Quarter</td>
<td>1</td>
<td>31 March</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>April</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>April</td>
<td>3</td>
<td>EP/0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>April</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>April</td>
<td>5</td>
<td>0</td>
<td>T</td>
</tr>
<tr>
<td>2</td>
<td>7 April</td>
<td>6</td>
<td>0/T</td>
<td>T</td>
</tr>
<tr>
<td>8 April</td>
<td>7</td>
<td>0</td>
<td>T</td>
<td>T</td>
</tr>
<tr>
<td>9 April</td>
<td>8</td>
<td>T</td>
<td>0</td>
<td>Informal conversation</td>
</tr>
<tr>
<td>10 April</td>
<td>9</td>
<td>Cooperating teacher at convention, substitute teacher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 April</td>
<td>10</td>
<td>Student teacher spent entire day at high school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>14 April</td>
<td>11</td>
<td>0</td>
<td>T</td>
</tr>
<tr>
<td>15 April</td>
<td>12</td>
<td>T</td>
<td>T</td>
<td>T</td>
</tr>
<tr>
<td>16 April</td>
<td>13</td>
<td>Student teacher absent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 April</td>
<td>14</td>
<td>0/Art, music</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 April</td>
<td>15</td>
<td>0</td>
<td>T</td>
<td>T</td>
</tr>
<tr>
<td>Week</td>
<td>Date</td>
<td>Day</td>
<td>Co-teaching Lessons</td>
<td>Student of the teaching-learning process</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>-----</td>
<td>---------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 2 3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>21 April</td>
<td>16</td>
<td>T T T T</td>
<td>Assignment (Dr. Thomas)</td>
</tr>
<tr>
<td></td>
<td>22 April</td>
<td>17</td>
<td>T T T</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23 April</td>
<td>18</td>
<td>T 0/0</td>
<td>Informal conversation</td>
</tr>
<tr>
<td></td>
<td>24 April</td>
<td>19</td>
<td></td>
<td>Cooperating teacher absent, substitute Teacher</td>
</tr>
<tr>
<td></td>
<td>25 April</td>
<td>20</td>
<td>0 T T</td>
<td>Post-lesson conference</td>
</tr>
<tr>
<td>5</td>
<td>28 April</td>
<td>21</td>
<td>T T T T</td>
<td></td>
</tr>
<tr>
<td></td>
<td>29 April</td>
<td>22</td>
<td>T T T</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30 April</td>
<td>23</td>
<td>T 0/T</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 May</td>
<td>24</td>
<td>T/0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 May</td>
<td>25</td>
<td>T T T</td>
<td>Post-lesson conference</td>
</tr>
<tr>
<td>6</td>
<td>5 May</td>
<td>26</td>
<td></td>
<td>Student teacher absent, no physical education classes</td>
</tr>
<tr>
<td></td>
<td>6 May</td>
<td>27</td>
<td>T O T</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7 May</td>
<td>28</td>
<td>T T 0/T</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 May</td>
<td>29</td>
<td>T T/T</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9 May</td>
<td>30</td>
<td>T T T</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>12 May</td>
<td>31</td>
<td>0 T T</td>
<td>Post-lesson conference lunchtime intramurals</td>
</tr>
<tr>
<td></td>
<td>13 May</td>
<td>32</td>
<td>T T T</td>
<td>lunchtime intramurals</td>
</tr>
<tr>
<td></td>
<td>14 May</td>
<td>33</td>
<td>T T/T</td>
<td>lunchtime intramurals</td>
</tr>
<tr>
<td></td>
<td>15 May</td>
<td>34</td>
<td>0/0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16 May</td>
<td>35</td>
<td>0 T T</td>
<td>Post-lesson conference lunchtime intramurals</td>
</tr>
<tr>
<td>8</td>
<td>19 May</td>
<td>36</td>
<td>Grades 3 and 4 Field Day</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20 May</td>
<td>37</td>
<td>Student teacher spent entire day at high school</td>
<td></td>
</tr>
<tr>
<td></td>
<td>21 May</td>
<td>38</td>
<td>Grade 6 Field Day Briefing with Dr. Thomas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22 May</td>
<td>39</td>
<td>Grade 5 Field Day</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23 May</td>
<td>40</td>
<td>Student teacher spent entire day at high school</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>26 May</td>
<td>41</td>
<td>Public Holiday</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27 May</td>
<td>42</td>
<td>T T T</td>
<td>Dr. Thomas' visit</td>
</tr>
<tr>
<td></td>
<td>28 May</td>
<td>43</td>
<td>T T/T</td>
<td>Post-lesson conference</td>
</tr>
<tr>
<td></td>
<td>29 May</td>
<td>44</td>
<td>T/T</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30 May</td>
<td>45</td>
<td>T T</td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 5 (CONTINUED)

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Day</th>
<th>Co-teaching Lessons</th>
<th>Student of the teaching-learning process</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>2 June</td>
<td>46</td>
<td></td>
<td>Kindergarten Field Day</td>
</tr>
<tr>
<td></td>
<td>3 June</td>
<td>47</td>
<td></td>
<td>Grade 1 Field Day</td>
</tr>
<tr>
<td></td>
<td>4 June</td>
<td>48</td>
<td>T</td>
<td>T/T</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Final conference in planning period</td>
</tr>
</tbody>
</table>

**Post-student teaching**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 June</td>
<td>49</td>
<td>Lunch with specialist staff</td>
</tr>
<tr>
<td>6 June</td>
<td>50</td>
<td>Final interview with researcher</td>
</tr>
<tr>
<td>11</td>
<td>13 June</td>
<td>University picnic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Graduation</td>
</tr>
</tbody>
</table>

**Note:** Lesson 2 Wednesday, and Lessons 1 and 2 Thursday were planning periods.

T=teaching; 0=observation

T/T, or 0/T refers to grade 2 lessons on Wednesday and Thursday each week, except 7 April, Lesson 2.

BP=blood pressure screening
Not directly involving pupils

Briefing sessions

Betty attended three of the four briefing sessions conducted for student teachers during spring quarter. The first briefing session was held on The Midwestern University campus, and attended by approximately 200 student teachers from all subject matter areas. The briefing lasted approximately 23 minutes during which time the student teachers were addressed by the Vice Dean, and a coordinator of student teachers from the College of Education. The physical education student teachers later described the Vice Dean's short speech as a "pep rally". The coordinator explained how the student teacher placements were made, and then outlined issues research on student teaching had shown to be important. The key features of each issue are summarized below:

1. participate in extra-curricular activities
2. report to the school early enough to share your lesson plans with your cooperating teacher, and stay long enough afterwards to discuss what happened during the day
3. make an effort to have specific lesson plans for each class
4. supply your own teaching aids, cooperating teachers are looking for you to show initiative
5. take time to go and meet the cooperating teacher, and to get a decent view of the school
6. do not take feedback personally, the criticism is to help you
7. Cooperating teachers look forward to interacting with you as an adult to share collegial relationships.

8. Cooperating teachers are looking for a good positive attitude, that you desire to do a good job.

9. Grooming and good appearance are important.

10. Do not approach student teaching as just one more hurdle.

Since most of the items presented by the coordinator were in the form of "should do" the question arose as to whether or not they could be regarded as tasks. Each item had a clear performance specification, and situation but not necessarily a criterion to be met. Betty did not take notes. When asked in the first interview about the value of the briefing Betty thought that it could have been accomplished in a letter, and considered that most of the items had been covered at the physical education briefing which followed immediately. For Betty, the tasks to be accomplished appeared to begin with the physical education briefing, and the task list distributed at that meeting were taken as the origin of tasks, keeping the College of Education items as background information.

Dr. Thomas, at his first briefing session, supplied the physical education student teachers with a package of materials from the College of Education including the Student Teaching Handbook. Betty did not consult this handbook at all in the presence of the researcher although she carried the package of materials with her each day.

Dr. Thomas conducted three briefing sessions for the physical education student teachers. They were held in a physical education
building on the campus of The Midwestern University. Attendees were Dr. Thomas, the researcher, and the physical education student teachers whose numbers declined from eight to six (see gaining entry).

At the first meeting of the physical education student teachers, Dr. Thomas distributed lists of tasks to be performed during student teaching by the physical education student teachers (see Appendix K). The first two items on the list were to attend the two briefing sessions on 6 March. When all four briefings were revised by the researcher at the end of the spring quarter, there were two types of tasks involved. The first written task was simple attendance. At his first briefing, Dr. Thomas stated:

okay, student teaching tasks, before Week 1 attend College of Education student teaching meeting. Rub it out, you've done (it). Conference one with university supervisor, that's this, you're doing that...

Second, the briefings served as distribution points for further, more specific tasks to be completed in the school setting, and the Dr. Thomas' second and third briefings were used to monitor the tasks set at his first briefing. For example, one task set by Dr. Thomas for the physical education student teachers to work on before Week 1, was to "prepare 3 management-related objectives which you plan to achieve in the first 2-4 weeks of the experience." Subsequent tasks included "discuss management objectives with your cooperating teacher", and for the second briefing session "present 3 management-related objectives and details of how you will achieve these."
Betty did not attend the second briefing session conducted by Dr. Thomas because it coincided with a softball match for her freshmen softball team. In lieu of attendance Betty was required to complete a written assignment. Dr. Thomas had mentioned at the first briefing that "if you can't make it, I have to punish you with some written work." Michele gave the assignment to Betty on 18 April, and Betty submitted it to Dr. Thomas on 21 April. The topics addressed in the assignment were: (a) an overview of the school; (b) overview of the physical education program; (c) orientation to student teaching; (d) established structures in use; (e) perceptions of the experience; and (f) observation data (completed by the student teacher on the cooperating teacher). Each topic had to be addressed for both the elementary and secondary schools. Completion of the assignment fulfilled the requirements.

The final briefing was held in Week 8, and was referred to as the "burnout" meeting. At this meeting the physical education student teachers reviewed their experience using the Evaluation and Feedback (see Appendix L). The student teachers were asked to identify criteria which they considered they had achieved, and to explain to their peers why and how they made their choice. Betty verbally identified "with-it-ness" which was consistent with Michele's comments to Betty during post-lesson conferences. On the handout Betty marked that she was able to teach from a positive style, analyze pupil performance and give appropriate skill feedback. She did not consider herself successful in teaching the
pupils self-management, or having a high rate of positive behavioral interactions.

Also, during the final briefing, the physical education student teachers completed a research questionnaire from the College of Education, and evaluated their cooperating teacher and university supervisor for Dr. Thomas' records. This information was confidential and not available to the researcher.

Conferences

Conferences had similar tasks to the briefings. First, attending the conference and participating constituted a task. This was tacitly understood by the participants since there were no written or spoken statements at Tiergarten specifying details of meetings between the participants, or the criteria for successful accomplishment. Second, at the conference previously set tasks were reviewed, and tasks were set and/or redefined for the following lessons. Conferences formed distinct units because they were attended only by members of the dyad, or triad, or once with Dr. Thomas. They were conducted in the physical education office at Tiergarten, before and after lessons.

Dyad

Before Betty's arrival at Tiergarten Bill had prepared a list of teaching goals for Betty at Weeks 1 and 2 covering: (a) learning pupils names; (b) revision at the end of each lesson; (c) preparation of unit plans; (d) getting to know the school; (e) introductions to other teachers; and (f) surveying the periodicals
in the physical education office (see Appendix M for the complete list of tasks for the ten weeks. The format in which the originals were handwritten by Bill has been retained). These served as a starting point for the very first conference, and continued over most of the quarter in some form. They were frequently referred to as tasks.

Almost on a daily basis, Betty and Bill conferred before the first lesson of the morning to preview the lessons, and after the third lesson to review the lessons. In addition, Bill used the conference to introduce topics not directly related to the immediate lesson, such as the plans for the field days, or professional concerns such as liability insurance. Betty's commitment at the secondary school both in teaching and coaching were discussed but discussion of non-school topics was minimal, for example, passing reference Friday and Monday to the weekend. In the five minutes between lessons, there would also often be a short exchange, or occasionally Bill lengthened these, and had the pupils wait outside, or in the gymnasium. The conferences varied greatly in length from a minute pre- or between lessons to 30 minutes post-lesson.

The format of the dyad conferences was for Bill to ask questions of Betty, or give information, while Betty would answer the Bill's questions, or raise her own. On four occasions, Bill demonstrated a particular skill for Betty, or showed her how to set out a piece of equipment. For example, Bill demonstrated the shot put technique he wanted Betty to teach, and then showed her how to
set out the special rope grid used to measure the distances the pupils putted the shot.

The most frequently used resource during the conferences was Betty's lesson plan, particularly in the early morning previews. In post-lesson reviews Bill used a variety of resources. The resource used depended on the tasks upon which Bill had Betty focus upon in a particular lesson, or series of lessons, and included the B-ALT:PE Observation Schedule (see Appendix B), on which he had recorded time utilization in the lesson and added comments in the form of key words. When behavioral interactions were the focus, these were simply check marks on paper. Bill frequently referred Betty to the reference material in the physical education office.

Triad

Michele conducted eight conferences with Betty, and Bill. The conferences held in Weeks 1 and 3 had pre- and post-lesson components. Pre-lesson Michele reviewed student teaching in total, and referred to Betty's unit plan and lesson plans. During the first post-lesson conference Michele indicated to Betty that she (Michele) would observe the same class over a series of lessons to determine Betty's progress as a teacher. No explicit statements were made about the timing or conduct of the conferences. From observation of the conferences, and reading the transcripts of them, the purpose was clearly to review the lessons taught, and to seek ways for Betty to improve her teaching in the subsequent lessons.
Six post-lesson conferences occurred after Betty had taught grade 6 classes, and there was a direct focus upon the lesson.

Michele referred to the data, and comments she had recorded on the B-ALT:PE Observation Schedule. Exceptions occurred on the Friday of Weeks 1 and 7. In Week 1 Bill coded Betty while Michele wrote comments. In Week 7 Michele videotaped the lesson and therefore did not use the B-ALT:PE Observation Schedule. Michele later coded the videotape and then gave Betty the videotape and the observation schedule. Betty was supposed to view the video, examine the data and draw comparisons with the lesson for which Michele had coded Betty as she taught another grade 6 on the Monday of Week 7 using the same content. Betty did not review the videotape. During conferences Michele also referred to teacher effectiveness research, and anecdotes from her own teaching experiences, and occasional reference to applied behavior analysis strategies she had used with her own child.

Conferences in Weeks 9 and 10 were conducted during planning periods. Michele did not observe lessons prior to these conferences. The Week 9 conference reviewed each of the lessons taught during that week, and served as preparation for the final conference in Week 10. Michele gave Betty a copy of the evaluation form distributed to cooperating teachers (see Appendix N). Michele advised Betty to prepare comments for each item on the form. During the final conference in Week 10 Michele lead the conference introducing each item on the evaluation form. Betty was asked for her comments, followed by Bill, and then Michele.
In the conferences in Weeks 3 and 4 Bill generated a list of tasks for Betty to concentrate upon as she taught in the following week. Bill wrote these tasks on sheets of paper which he shared with Michele and Betty, and then displayed from the special notice holder on the wall beside Betty's desk (see Appendix M). Bill also participated in the conferences by informing Michele of Betty's teaching performances when Michele was not at Tiergarten.

Dr. Thomas

During the first briefing session for the physical education student teachers, Dr. Thomas advised them that he planned to see them teach at least once during the quarter. He visited Betty on the Friday of Week 9 and observed her teach a kindergarten class. Dr. Thomas previewed Betty's lesson plan prior to the lesson asking her to clarify items on the plan, and to explain the relationship of this lesson to previous ones. The relationship was tenuous since the kindergarten classes only had physical education on alternate weeks, and the last time they had met in Week 7 Bill had conducted gradings for the field days. Dr. Thomas also mentioned Betty's contract as softball coach, and her basketball playing days. During the lesson Dr. Thomas coded Betty using B-ALT:PE Observation Schedule. After the lesson, Dr. Thomas briefly complimented Betty on the favorable ratio of positive to negative behavioral interactions, and commented on the need for her to control the dismissal of the class. He left promptly to go to another appointment, and left the B-ALT:PE Observation Schedule sheet for
Bill to discuss with Betty. Bill also left to attend to other business. Michele visited later in the morning and followed up on Dr. Thomas' comments.

Research

Since the details of Betty's interactions have been presented in Chapter Three there will be no further elaboration at this point except to note that being a research participant created a distinct category of experiences for Betty.

In addition Betty completed one research questionnaire on multi-cultural education for the College of Education during the third briefing session with Dr. Thomas in Week 8. She chose not to complete a second survey in Week 10.

Experiences in which Betty directly studied pupils, teachers, and subject matter

In Table 5 the symbol 0 indicated the occasions when Betty was an observer. The observations occurred extensively in Week 1 and then declined until there were none at all in Weeks 8 through 10. Betty's observations could be placed on a continuum from entirely passive to active. Each observation, or group of related observations had their own tasks.

Passive observer

With two exceptions Betty's observations were of Bill teaching physical education classes. In Week 1 the focus of her observations was upon the organization and management of the classes but this was
made known during the post-lesson conference rather than pre-lesson. For example, after Bill had taught grade 5 on Monday:

Bill remember two management techniques I used
Betty you walked around
Bill what did I use to cut down on the time to get active
Betty (inaudible)
Bill maybe it was the way the gym was set up
Betty oh the equipment there was lots of it
Bill lots of equipment so on 2 to 3 kids at each station
Betty how do you deal with the problem if someone does not want to go together
Bill at the start don't give them time to think about it, get them to beat their own record.

When asked in an informal conversation if she had a plan for her observations of Bill, Betty told the researcher she did not, although she thought she ought to.

During the grade 4 lesson on Wednesday Betty coded Bill using the B-ALT:PE Observation Schedule. This was a task set by Dr. Thomas to be presented during the briefing on campus in Week 3 (see Appendix K).

Observation patterns varied between the primary and intermediate grades. Bill kept Betty as observer into Week 4 with the primary grades. From his previous experience with physical education student teachers from The Midwestern University, he had found them to be deficient in content for the primary grade levels. Betty also experienced this problem (see Frame of Reference). The task for Betty was therefore to learn subject matter appropriate for the primary grade levels. Several times Betty observed from her desk in the physical education office as she wrote lesson plans. Bill relied to a considerable extent on the "teachable moment", the
time when he considered it appropriate to raise an issue about teaching with Betty.

With the intermediate grades Betty assumed most of the "instructional duties" in Week 2. She reverted to observer once in each of Weeks 6 and 7. In Week 6 she taught the grade 4 class in the first period but Bill was dissatisfied with it. He taught the grade 5 class in lesson 2 to show her how to sequence the activities. In Week 7 Bill was disturbed by the brevity of Betty's lesson plan. Their pre-lesson conference did not improve Betty's understanding of what was required so Bill taught the first class. On both occasions Betty made notes on her lesson plan as she observed Bill teach. She then taught the same content for the remainder of each week.

Betty observed pupils in non-physical education settings on two occasions. One task set by Dr. Thomas for the physical education student teachers was to "view prospective students of one of your classes in a non-P.E. setting" (see Appendix K). A task Bill had set for Betty for Weeks 1 and 2 was to "get to know the school" (see Appendix M). She observed grade 5 in lesson 1 of Week 2, and also toured the building. During the post-lesson conference at the end of the morning Bill asked Betty where she had been and what she had seen. She had observed grade 5 and thought that they were as restless in their classroom as they were in physical education.

Another task set for Betty by Bill in Week 3 was to improve upon the number of positive behavioral interactions she had with the pupils. Bill and Betty each measured their own behavioral
interactions using a hand-held golf counter as they taught. In Week 3 Bill sent Betty to observe the art and music teachers and to count their behavioral interactions. Betty did not observe the art teacher because she had a student teacher. Betty observed the music teacher. In the post-lesson conference they discussed Betty's record of the behavioral interactions:

- Betty music (discussion of the teacher's name)
- Betty she was just singing with the kids and she didn't give a lot of feedback. I had like five or six of them that she had given
- Bill and the period of time
- Betty it was about ten minutes
- Bill well five or six
- Betty ten minutes
- Bill five or six. I mean five or six for ten minutes is pretty good. I mean there are some teachers...when I did my dissertation I did it on a resident school camping. I observed four of the teachers in this building for a week with a coding sheet similar to what you had. There are some kids (the teachers) didn't say a positive thing to...in terms of behavior all week.

Generally, Betty's observation of the rest of the school were minimal. She interacted with the faculty when she used the photocopy machine in the general office area, and at the field days. In Week 1 she assisted once with the blood pressure screening of the pupils, and in Week 2 helped shift equipment for the tornado drill.

Observer participant

On most of the occasions plotted in Table 5 for observation, Betty was an observer participant. She began observing the lesson and then gradually became actively involved in it. On Day 3 of Week 1 during the planning period Bill told Betty, "you'll learn more by
getting in there than by just sitting here talking." The way in which Betty "got in there" varied from being a player in a game of Ducks and Hunters with grade 2, to refereeing in Kickball, to being a pupil in Bill's classes. After each occasion Bill would discuss with Betty what she had gained from her participation. Among the reasons Bill advanced for her participation were the gaining of class control, acceptance by the grade 6 boys of a female physical education teacher, "sparking interest" in the game, and as a way for her to learn the games. Bill was an active participant-player in most of his lessons so the pupils were accustomed to teacher involvement and appeared unaffected by Betty's participation.

There were also occasions on which Betty, as observer-participant, served as "another pair of hands." For example, when Bill graded the kindergarten pupils for their day, Betty recorded the placings; during Weeks 2 and 3 she color coded the sheets on which the pupils recorded their performances at track and field events, and in the game of Capture the Flag with grade 2 she joined in to help Bill distribute the flags to the pupils.

In summary, Betty observed pupils, teachers, and subject matter through passive and active observation. Her observations were part of her experiences as a student of the teaching-learning process. Each observation had a task associated with it although the timing of the presentation of the specification of the task varied. The observations served as the foundations for her learning the context at Tiergarten, and for her co-teaching.
Student Teaching as Co-teaching

Student teachers were described in the Student Teaching Handbook of The Midwestern University as "co-teachers whose instructional duties increase from day to day" (p. 6, see Appendix J).

The way in which Bill increased Betty's instructional duties can be described after an examination of the structure of the physical education program at Tiergarten. For the purposes of this case study the main components of the physical education program can be represented in an inverted triangle (see Figure 6) progressing from the broadest, least detailed quarterly program to the specific details of the critical elements of each activity.
Figure 6. A schematic representation of the physical education program at Tiergarten Elementary School for spring quarter, 1986.
Quarterly program and weekly organization

The subject matter taught to the intermediate grades was listed by weeks on the quarterly program drawn up in advance by Bill, and displayed on the bulletin board in the physical education office (see Appendix O). Betty copied the program and used it as the basis for her unit plan, and subsequent lesson plans. Table 6 summarizes the program. Each intermediate grade had one 50 minute lesson per week. Therefore, the list of activities for each week in Table 6 equated with one lesson.
### TABLE 6

The Program by Weeks for Physical Education for the Intermediate Grades at Tiergarten Elementary School for Spring, 1986

<table>
<thead>
<tr>
<th>Week</th>
<th>Subject matter focus</th>
</tr>
</thead>
</table>
| 1    | Blood pressure screening  
      | Warmup  
      | Fitness background  
      | Timing using the crouch start |
| 2    | Warmup  
      | Triple jump  
      | Long jump  
      | Hurdles  
      | Three minute run |
| 3    | Warmup  
      | 70 meter and 200 meter sprints  
      | Softball throwing and catching |
| 4    | Warmup  
      | Shot put  
      | Batting versus throwing |
| 5    | Warmup  
      | Javelin  
      | Bat Pour  
      | 800 meters run |
| 6    | Warmup  
      | Softball match  
      | 1500 meters run |
| 7    | Warmup  
      | Relays  
      | Hurdle shuttle  
      | Field day practice |
| 8    | Field day |
| 9    | Adventure games |
| 10   | Adventure games |
Betty, following written task directions from Dr. Thomas and Bill (see Appendices K and M), wrote a unit plan for Five Star track and field, and softball Weeks 3 to 7. The plan was submitted to Michele for approval. Michele was critical of the lack of details included by Betty for the task analysis of the activities, and needs assessment of the pupils. Betty, however, fulfilled the task requirement by completing the unit plan.

A program for the spring quarter for the primary grades was not displayed. The list of activities constructed from Betty's lesson plans and the researcher's fieldnotes is presented in Table 16 in Appendix P.

Lessons

In the list of tasks distributed by Dr. Thomas the physical education student teachers were, in Week 3, to "begin to teach at least 2 classes in each school (or 4 in one school, i.e., the equivalent of 40 minute classes), and "insure that you will be teaching 3 classes in each school by week 4." The unstated requirement was that the numbers were for lessons per day, not per week. Given that the intermediate grade lessons were of 50 minutes duration at Tiergarten, Betty was slightly above the requirements when they were calculated in minutes. Simply, by Week 6, Betty taught all the available lessons except for those occasions when she observed Bill. The distribution of lessons between Betty and Bill is summarized in Tables 7 and 8.
TABLE 7
Lessons Taught Each Week by the Student Teacher at Tiergarten Elementary School

Number of Lessons

<table>
<thead>
<tr>
<th>Week</th>
<th>Primary Grades</th>
<th>Intermediate Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>K 2a 2b</td>
<td>4 5 6</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1 11/2 1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1 3 3</td>
</tr>
<tr>
<td>4</td>
<td>1 1 1</td>
<td>3 3 3</td>
</tr>
<tr>
<td>5</td>
<td>1 1 1</td>
<td>3 3 3</td>
</tr>
<tr>
<td>6</td>
<td>1 2 2</td>
<td>3 2 2</td>
</tr>
<tr>
<td>7</td>
<td>1 1</td>
<td>2 3 3</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>FIELD DAYS</td>
</tr>
<tr>
<td>9</td>
<td>1 2 2</td>
<td>2 2 1</td>
</tr>
<tr>
<td>10</td>
<td>FIELD DAY</td>
<td>1</td>
</tr>
<tr>
<td>Sub-total</td>
<td>4 8 7</td>
<td>16 17 1/2 18</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>51 1/2</td>
</tr>
<tr>
<td>Grand Total</td>
<td>70 1/2</td>
<td></td>
</tr>
</tbody>
</table>
Table 8
Lessons Taught Each Week by the Cooperating Teacher at Tiergarten Elementary School

<table>
<thead>
<tr>
<th>Week</th>
<th>Primary Grades</th>
<th>Intermediate Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>K</td>
<td>2a</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-total</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td>33 1/2</td>
<td></td>
</tr>
</tbody>
</table>

FIELD DAYS
Activities

Activity was used as the unit of analysis for the content of lessons based on Doyle's (1984, 1986a) description of bounded segments of classroom time with an identifiable focal content, or pattern, or program of action. Three types of activities occurred in the lessons: (a) instructional, dealing with the subject matter; (b) organizational, concerned with putting the pupils in contact with the subject matter and resources; and (c) interpersonal concerned with grouping the pupils according to the subject matter and resources, and the general conduct of people towards each other.

Organizational activities

Since lessons began with the movement of the pupils from their classrooms to the gymnasium where they were then organized for the activities, the discussion begins with consideration of organizational activities. There were two major types: (a) those which generally occurred before or after the lesson in the form of equipment set-ups and dismantles, and were performed by Betty and/or Bill with assistance from a small number of pupils, maybe four or five; and (b) ordering, which are often referred to as transitions. Ordering activities were of two types: (a) major, when there was a change of subject matter focus between activities, for example, from Bat Pour to the 800 meters run in Week 6; and (b) minor in which there was a change within an activity, for example, in Week 3 the intermediate grades changed from observing Betty demonstrate the
shot put technique in the gymnasium to moving outside to perform the shot put themselves.

Major and minor ordering for the intermediate grades usually involved a physical relocation by the teacher and pupils, and often became an instructional activity, or interpersonal activity when Bill or Betty challenged the pupils to race with them between different venues, for example, from the track around the carpark to the hurdles on the southern perimeter of the school, a distance of about 200 yards. Furthermore, in Weeks 3 and 6, Bill and Michele set "hustling" as a task for Betty. A "hustle" has been defined by Siedentop (1983) as "a verbal or nonverbal behavior that is used by the teacher to energize pupil behavior, that is, communicating to the pupils the need to keep trying, to keep the lesson moving along, and to continue to put forth an effort" (p. 76). Bill and Michele specifically suggested to Betty that she hustle the pupils more as they relocated.

**Instructional activities**

The instructional activities have previously been listed in Table 6. Instructional activities included the presentation of the subject matter to the pupils by the teacher, and their practice of it. The focus was upon the critical elements to be described after activities.

**Interpersonal activities**

Interpersonal activities co-occurred with the organizational and instructional activities. Often the subject matter, or the
supply of available resources required that the pupils be grouped in either: (a) formations; or (b) placements. Formations required a specific number of pupils for the instructional activity to be conducted according to the rules of the sport, for example, circular relays require four people located at particular sections of the track. Placements occurred when the guiding principle was an equitable distribution of resources to pupils, for example, there was sufficient space in the gymnasium for six lines of mats on which the pupils practiced long jump, therefore, classes were simply divided into six groups with one group at each mat. In placements the pupils performed as individuals rather than as a team.

The allocation to formations and placements, and other interpersonal activities took place according to the discipline procedures of the teacher. Discipline was used as a term for orderly conduct. The two components of discipline were: (a) established structures, and (b) current interactions. Soar and Soar (1979) described established structures as "internalizations by the pupils of the limits to behavior, patterns of behavior that are carried out, and sequences of activities that have been established in the past" (p. 101), and current interactions as "a here-and-now attempt by the teacher to support or modify pupil behavior, and maybe either verbal or nonverbal" (p. 101). In the assignment Betty submitted to Dr. Thomas in lieu of attending the second physical education briefing session, she was required to identify two established structures that she would continue to use, and two that the cooperating teacher used but which she felt did not promote
effective teaching, and she would change. Betty selected the "time out" box, and "homes" as the established structures she would continue to use, while she did not feel that there were any she would change. This was not surprising in view of Bill's years of experience in the one school.

Role-by-time matrices were constructed for each week for the lessons taught to the intermediate and primary grades to show the activities and critical elements in each lesson for each grade, and who taught them. Close examination of these matrices revealed that the lessons and activities were more similar than different. Slight variations occurred in the type and number of repetitions of exercises performed during the warmup but the remainder of each lesson adhered closely to the format established early in the week by either Betty or Bill. So few were the variations that each could be readily identified as given in the following examples. In Weeks 1 and 2 all activities except for the three minute run were taught in the gymnasium. From Week 3 onwards the lessons were taught outside at a variety of venues. The exceptions were in Weeks 4 and 9 when the weather was cold and wet. In Week 4 the lessons proceeded as planned indoors. In Week 9 the lesson was completely changed. Instead of the adventure game of "Mirrors and Mortars" (Rohnke, 1985), the three classes on Tuesday had "Carpet Squares", "Cookie Machine" and "Shark" as their three activities. Bill made several recommendations to Betty to improve the safety of these from Lesson 1 to Lesson 2 but the activities were the same. Only two lessons were incomplete. In Week 4, one grade 4 left after 20
minutes to go on a field trip so only did shot put. In Week 5, Bat Four was omitted for grade 4 on Tuesday because there was an accident during javelin practice and it took time for Betty and Bill to attend to the injured boy. (He fainted, after hitting himself on the head with the plastic javelin. He had been absent from school the four previous days.)

Lessons and activities were engaged in simultaneously by the whole class group with few exceptions. In Week 5, half class groups were alternated between Bat Four and the 800 meters run. Betty positioned herself at the track with the runners so that she could see and talk to the softballers about 50 yards away. Class numbers necessitated two softball matches for each class in Week 6. The two softball diamonds were about 200 yards apart. Betty ran back and forth between the diamonds to supervise each game. The pupils had a choice of events to practice for field days in the last 15 to 20 minutes of the lessons in Week 7. Early in the week the pupils distributed themselves evenly over the different events but when high jump was introduced later in the week the majority congregated there. Michele made two supervisory visits to Betty during Week 7. She suggested that Betty implement a strategy to insure even distribution at the events. While this was not formally stated as a task for Betty it included specifications of situation, performance, and criteria. Betty did not employ a particular strategy but used more hustles to encourage the pupils to move around the various events.
As with the intermediate grades, the lessons and activities for the primary grades were more similar than different with Betty teaching whole class groups, and the same subject matter in the instructional activities to the grades having physical education on the same day (see Appendix P).

Under the heading of activities, Doyle (1984) also included three mandatory categories of classroom activities: (a) transitions; (b) openings; and (c) closings. Transitions have already been discussed as organizational activities. Openings and closings will be briefly considered.

Openings were short. The pupils entered the gymnasium under the direction of Bill or Betty, or occasionally their classroom teacher, and were to "find your homes". Betty typically commenced most lessons with "how are you doing?" followed by the type and number of warmup exercises.

Closings tended to have three phases. The teacher would signal the end of the activities by calling the pupils to herself, or himself, after which there would be a relocation to the gymnasium to put the equipment in the store. The pupils then would "line up" inside the gymnasium near the door. During "line up" the lesson was reviewed. A specific task set during Weeks 1 and 2 for Betty was to ask each class "what did you learn in gym today?" Betty asked the pupils questions about the critical elements of each activity they had practiced.

One final set of activities were set by Dr. Thomas and Bill. In the agenda for the second briefing session Dr. Thomas
specifically reminded the physical education student teachers as part of the unit plans to "remember to have some emergency activities 'up your sleeve'." Throughout the quarter Bill reminded Betty that she needed to be able to draw on activities from her "bag of tricks". When asked in the final interview what was meant by "bag of tricks" Betty replied, "always have a back up, always know what you're going to do." As an example Betty referred to the day in Week 9 when the gymnasium was set up for a play and she could not proceed with her planned lesson and she "revert(ed) back to some other games that I had known, or you know, come into contact with, or something." For Bill a "bag of tricks" was:

- Some, a number of really inexpensive easy to organize. . .it could be a game or a little game-like situation that you can use in almost any activity. . .a ball skill or something, spin on your finger. "Hey, look what you guys, you're doing so well with this skill, why don't you try this one? Now, you probably won't be able to do (it). See how many times you can go round your back real quick." It might be dribble with two fingers, or juggle a softball, flip the bat over and catch it with the other hand, or something like that. Just quick little things you can do at the beginning, middle and end of a class that would catch the (pupils') interest.

In summary, activities constituted the basic unit of analysis of lessons. Three main types of activities were identified in physical education lessons at Tiergarten during spring quarter 1986: (a) organizational; (b) instructional; and (c) interpersonal. Each lesson had an opening, and a closing activity. In addition, Betty was expected to develop a "bag of tricks". Analysis of the lessons for both intermediate and primary grades
revealed that there were more similarities than differences in the conduct of the lessons.

**Critical elements**

Erickson (1982) in his list of definable aspects of the academic task environment in a lesson included: (a) the logic of the subject matter sequencing; (b) the information content of the various sequential steps; and (c) "meta-content" cues towards steps and strategies for completing the tasks. In physical education the components of activities and the strategies for the pupils to practice the activities are collectively known as "critical elements". Other terms used include teaching points, coaching points, or teaching cues.

In the matrices used to analyze the lessons the critical elements listed for each activity were identified. Since the activities were similar for each class, it was not surprising to find that the critical elements were also very similar as shown by the following examples.

**Week 5, Monday, Lesson 1, grade 4**

when you handle the javelin (inaudible) what you do is hold on with your finger tips, right along the pads of your hand. Not on the palm of your hand like this (inaudible), but with your fingers right along the side of your hand. . .it has got to be parallel to this line. As I'm running I'm not allowed to go over this (pointed to line). Remember how in shot put we had our hips open, then we had to rotate them. . .it's pretty much the same thing. The javelin stays parallel on the same line. 

**Week 5, Tuesday, Lesson 2, grade 5**

when we hold the javelin we hold it with our finger tips and the pads of our hand. It doesn't touch the palm of
our hand. I'm holding it like this. I hold it on the back of my hand (Betty turned her hand for the pupils to see it). Right, as we get ready to throw, we get our arm fully extended. Just like this. Not bent. . .we're going to run down the line. . .do you know what parallel is? (Pupils responded positively.) I'm going to keep the javelin parallel to the line. Parallel, straight, and bring it up to let it loose. We're going to take it back a little bit, and we're going to close our hips. Remember how we did the shot put, when we rotated around we had to close our hips. . .

The emphasis on the critical elements varied between the activities and the circumstances in which they were practiced. Track events had two patterns. Sprint starts, hurdles, and relays were practiced with an emphasis on the critical elements while the 70 meters, 200 meters, 800 meters, and 1500 meters were performed once by the pupils in each class to record a time for their Five Star award. In the field events (jumping and throwing) the pupils were able to practice before measuring their best distance.

The softball activities of Weeks 3 and 4 had clearly identified critical elements related to technique, while in Weeks 5 and 6 the critical elements tended to include more reference to the rules and strategies of the games.

The primary grades had a mixture of technique and rules.

The tasks to be accomplished using the critical elements of each activity were made clear during Weeks 1 and 2. The intermediate grade pupils were to practice the events to record their best effort on their Five Star card, and to identify events in which they would like to represent their class at the field day. The pupils, however, had a choice particularly during the running events. They were to pace themselves to finish even if they had to
walk, but those who were very eager were encouraged to try and set a new record. This choice of effort would constitute what Doyle (1979, 1983) termed the "performance-grade exchange".

The records were displayed on The Midwestern University Five Star Track and Field bulletin board in the gymnasium and were consulted frequently by the teachers and pupils. Whenever a new record was set the teacher made a new label with the pupil's name and placed it on the record board. The pupils had an opportunity to improve their performance during recess, or the intramurals held at lunchtime in Week 7.

The physical education program for both the intermediate and primary grades culminated in the field days held separately for each grade level. The intermediate grade field days were in Week 8, the primary grades' in Week 10.

The records formed a task for Betty as Bill reminded her often to mention the records to the pupils. He urged her to write the records down on a slip of paper and carry them with her to each lesson. On some occasions Bill did this for Betty.

The critical elements formed yet another task for Betty. For Weeks 1 and 2 Bill had set the following task, "Ask your (pupils) each day. . .What did you learn in gym today? (emphasis in the original). Betty would ask when the pupils were lined up ready to leave the gymnasium. For example in Week 5, Wednesday, Lesson 1, grade 4:

Ms. Snow you guys did a nice job today especially on your javelin. You threw pretty well today (inaudible) How about your grip?
Pupil on your palm
Ms. Snow on your palm
Mr. Stanley made an inaudible comment
Ms. Snow and how do you hold it when you get ready to throw it
Pupils all comments
Ms. Snow that's right. You're keeping your arm straight. You keep the body parallel. That's good. Good job you guys. Okay quietly back to your room

Increments in Betty's "instructional duties"

While the physical education program at Tiergarten has been described from its broadest to narrowest components, Bill increased Betty's "instructional duties" from small, specific critical elements to activities to whole lessons, and weeks. Table 5 displayed Betty's engagement in the broader aspects of the program, and differentiated between student teaching as a learning experience, and student teaching as co-teaching. In the former she was often an observer participant. A more detailed picture of her co-teaching experience is presented in the role-by-time matrix in Table 9. The primary grades were not included in this table since Betty did not teach them during Week 1.
TABLE 9
Role-by-time Matrix for the Intermediate Grades for Week 1 of Student Teaching at Tiergarten

<table>
<thead>
<tr>
<th>Day</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wed.</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson</td>
<td>1 2 3</td>
<td>1 2 3</td>
<td>1 2 3</td>
<td>1 2 3</td>
</tr>
<tr>
<td>Grade</td>
<td>4 5 6</td>
<td>4 5 6</td>
<td>4 5 6</td>
<td>4 5 6</td>
</tr>
</tbody>
</table>

**Organizational/interpersonal Instruction**

<table>
<thead>
<tr>
<th>Homes</th>
<th>0 0 0</th>
<th>0 0 0</th>
<th>0 0 0</th>
<th>0 0 T</th>
</tr>
</thead>
<tbody>
<tr>
<td>WARMUP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>jumping jacks</td>
<td>0 T</td>
<td>0 0 0</td>
<td>0 0 T</td>
<td>T T</td>
</tr>
<tr>
<td>toe touches</td>
<td>0 0 T</td>
<td>0 0 0</td>
<td>0 0 0</td>
<td>0 0 0</td>
</tr>
<tr>
<td>butterflies</td>
<td>0 0 0</td>
<td>0 0 0</td>
<td>0 0 0</td>
<td>0 0 0</td>
</tr>
<tr>
<td>pushups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>toe grab</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Major Ordering**

| BACKGROUND KNOWLEDGE | 0 0 T | 0 0 0 | 0      |
| news article         |       |       |        |

**Minor Ordering**

| jogging           | 0 0 T | 0 0 0 | 0      |

**Major Ordering**

| INTRODUCTION TO FIVE STAR TRACK AND FIELD |
| introduction      | 0 0 0 | 0 0 0 | 0 T   |
| field day         | 0 0 0 | 0 0 0 | 0     |

**TIMING**

| cost              | 0 0 0 | 0 0 0 | 0 T   |
| handling          | 0 0 0 | 0 0 0 | 0 0 T |
| controls          | 0 0 0 | 0 0 0 | 0 T   |

**Minor Ordering**

| CROUCH START       | T T T | T T   |
| Olympians          |       |       |
| 900° back leg      | 0 0   |       |
| demonstration      | 0 0 0 | T T T | 0 T   |
| 4m run thru      | 0 0 0 | 0 T 0 | 0 T T |
| coach partners    | 0 0 0 | 0 0 0 0 0 0/ T |
| 10m. run thru    | 0 0 0 | 0 0 0 0 0 0 T |
| timers            | 0 0 0 | T 0 0 | T |
| false start       | 0 T T | T     |
| stop before wall  | 0 0 0 |       |
| sight/sound       | 0     |       |
### TABLE 9 (CONTINUED)

<table>
<thead>
<tr>
<th>Day</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wed.</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson</td>
<td>1 2 3</td>
<td>1 2 3</td>
<td>1 2 3</td>
<td>1 2 3</td>
</tr>
<tr>
<td>Grade</td>
<td>4 5 6</td>
<td>4 5 6</td>
<td>4 5 6</td>
<td>4 5 6</td>
</tr>
</tbody>
</table>

**Organizational/interpersonal Instruction**

<table>
<thead>
<tr>
<th>Minor Ordering</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURING</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>eye blinks</td>
<td>0 0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>tongues out</td>
<td>0 T</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>jumping jacks</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>jogging</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>time teacher</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>finger movement</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stopwatches off and stored</th>
<th>0 0 0 0 0 0 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line up at door</td>
<td>0 0 0 0 0 0 0</td>
</tr>
</tbody>
</table>

**REVISION**

<table>
<thead>
<tr>
<th>how to time</th>
<th>0 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>behind back</td>
<td>0</td>
</tr>
<tr>
<td>2 things wrong</td>
<td>0 0</td>
</tr>
</tbody>
</table>

**NEXT WEEK**

<table>
<thead>
<tr>
<th>triple jump</th>
<th>0 0 T T</th>
</tr>
</thead>
<tbody>
<tr>
<td>why TJ</td>
<td>0 0 T</td>
</tr>
<tr>
<td>demonstration</td>
<td>pupil</td>
</tr>
<tr>
<td>not in Living room</td>
<td>0 0 T</td>
</tr>
<tr>
<td>black mats</td>
<td>0 0</td>
</tr>
<tr>
<td>Patience with BP</td>
<td>0</td>
</tr>
</tbody>
</table>

**NOTE:** 0 represents Bill teaching and Betty observing; T represents Betty teaching and Bill observing.
Week 1 was atypical because during approximately the first 20 minutes of each lesson the pupils attended a blood pressure screening conducted by the school nurse. When the pupils went into the gymnasium the remainder of the lesson was typical for physical education. Two sets of information are provided along the ordinate in Table 9. Organizational and interpersonal activities are set flush against the left margin whilst instructional activities have been indented. This facilitates conventional left-right reading, and emphasizes that organizational and interpersonal activities preceded instructional ones. Tiergarten pupils assembled on their "homes" before instructional activities were introduced. The main activities of the lesson have been capitalized, for example, WARMUP, while the critical elements of each activity are in lower case, for example, jumping jacks.

Table 9 has two patterns. First, reading across the days and grades, the lessons were similar but not identical. Varying amounts of time were needed by different classes at the blood pressure screening. In those classes having less than 20 minutes for physical education, the MEASURING activity was omitted. This was simply a number of different exercises timed by the pupils to help them use the stop watches. When asked later about the variations, Bill said he changed the lesson content to keep himself interested, and that he sometimes forgot exactly what he told each class.

Second, in Table 9 reading down the columns, the symbol T depicts the gradual increases in Betty's instructional duties. Betty was a passive observer for the first lesson on Monday, and
again on Wednesday when she coded Bill using the B-ALT:PE Observation Schedule. In all other lessons Betty had some instructional duties. In Lesson 2, with grade 5 on Monday, she taught one critical element, eye blinks, in the MEASURING activity, and followed up in Lesson 3 with grade 6 with part of the WARMUP (jumping jacks and toe touches). From Tuesday onwards, Betty taught the CROUCH START. Her introduction to this varied from that used by Bill on Monday. Betty began by asking the pupils if they had watched the Olympics on television, and what the pupils had noticed about the Olympians technique. Betty then demonstrated. In an aside to the researcher Bill commented that she had taught the start better than he did, and later in the week he also commented to one class that Ms. Snow was able to teach the start much better than he could. Bill handed over the explanation of the triple jump to Betty in Lesson 2 for grade 5 on Tuesday. In the previous lessons Bill had described the triple jump to the pupils, and sometimes but not always demonstrated the sequence of hop-step-jump. Again, after Betty had taught it he complimented her on being able to do it better than he could. The pupils were to practice the triple jump at home so that they could do it in lessons in Week 2. Over the course of the week Bill increased Betty's load from a critical element which Bill considered the easiest to do, to an activity, to several activities including transitions, till she taught the entire Lesson 3 to grade 6 on Friday. It should also be noted that during many of the observation periods Betty assisted one or two pupils, or
a small group with the technique, and also participated in the run
throughs (thrus), or short sprints over four and then ten meters.

In Week 2 Betty observed in Lessons 1 and 2 and in the third
lesson taught the three main activities -- triple jump, long jump,
and hurdles -- while Bill taught the warm-up and three minute run.
Thereafter for the rest of the quarter Betty taught the intermediate
grades except for those occasions when she observed in Weeks 6 and
7. Bill, however, was not a passive observer. He often interjected
to make suggestions to Betty, or to talk to the pupils. This will
be discussed in detail in relation to Bill as a teacher of the
student teacher.

When Bill was asked in the first interview which classes he
would give to Betty at the beginning of her student teaching he
indicated that he had no predetermined schedule but would select a
class with small numbers, and free from personality clashes.
Several times in the early stages of the quarter he commented that
there were no set ways of increasing the workload of student
teachers. Guidelines were provided by The Midwestern University but
each situation and each student teacher was different. Bill
preferred to wait for what he called the "teachable moment". He
would teach a lesson several times as a demonstration for the
student teacher. From the very first day, Bill encouraged Betty to
ask to take over at any stage. Each morning he asked what she
wanted to teach that day. For the first week Betty did not reply to
these prompts but when Bill specified a part of a lesson that was her responsibility, she taught it.

Summary

In summary, the natural units of the organization of the student teaching at The Midwestern University, and the physical education program at Tiergarten were used to describe what Betty did as a student of the teaching-learning process, and as a co-teacher. Each natural unit was identified by its task, subject matter, grouping of people, and physical resources.

Betty began co-teaching with one critical element in Lesson 2 of Week 1. She taught her first complete lesson to grade 6 in Lesson 3 on Friday of the same week. During the week Betty was both a passive observer, and an observer participant.

Learning the Context Already Existing in the School

The subquestion to be answered in this section was:

2. at the commencement of the student teaching experience how did the student teacher learn the context already existing in the school?

As a student of the teaching-learning process, and a co-teacher, Betty learned the context of teaching physical education at Tiergarten through a series of tasks set for her by those guiding her experience. Tasks previously discussed under the student teaching experience will not be repeated here, but should be considered concurrently as part of Betty's learning of the context. Some tasks set for Weeks 1 and 2 directed Betty specifically to
learning about Tiergarten and the physical education program. These will be discussed in this section in the same sequence as used previously, that is, pre-student teaching, and student teaching. Field days will be included in addition as an example of Betty learning a specific aspect of the context over an extended period of time.

Pre-student teaching

At the briefing session conducted by the coordinator from the College of Education, the student teachers were advised to make early contact with their cooperating teacher and to plan to visit the school. This was the reason the College made the placings in winter quarter. The College did not prescribe a method by which the student teachers should contact the schools but the coordinator suggested a telephone call, and for the student teacher to be sure to identify herself or himself as a student teacher from The Midwestern University.

The physical education student teachers learned of their placements from Dr. Thomas. After he had discussed the expectations and tasks for student teaching, Dr. Thomas read the list of student teachers, cooperating teachers, and university supervisors. He also gave his subjective comments on the cooperating teachers and student teachers.

I'm happy to say that in student teaching, the people you work with, the cooperating teachers, are good teachers, too. Terrific teachers. They will work with you, and they will observe you, and they will give you feedback. I can say that because they are only working with good student teachers (inaudible) so I think you are going to
be working with people who are good models of the profession. They get involved.

When asked about the briefing sessions during the first interview, Betty indicated that the physical education student teachers "were more concerned about where we were going to be placed."

Acting on the advice of both coordinators, Betty telephoned both of her schools in the final week of winter quarter. She visited the secondary school, and was advised by Bill that she need not attend Tiergarten until 31 March, the first day of spring quarter. Betty knew a little about the school district because she had already had an interview for a teaching position, and she was employed as the girls' freshmen softball coach.

Finding Tiergarten on the first day proved to be more difficult than Betty had anticipated. She followed the directions in the package of materials provided by the College of Education only to find that some recent alterations in access roads had not been included. Eventually she stopped at a store to ask for directions.

Student teaching
Week 1

Upon her arrival at Tiergarten Betty went directly to the gymnasium. Bill promptly showed her the list of tasks for Weeks 1 and 2 (see Appendix M) and verbally explained them to her. He showed her the envelope on the bulletin board where she was to deposit her lesson plans, and log sheets and questions she might want to ask Bill. The log was a short written paragraph about what
Betty had observed each day. Completing it constituted a task. Bill suggested that often there was not time to talk and the question sheet would help overcome this problem. In fact, Bill and Betty conversed a great deal and Betty ceased to write either log entries or questions after Week 2.

Bill also showed her his copy of tasks set by Dr. Thomas, and which were displayed on the bulletin board. This appeared to be Bill's way of informing Betty that he was aware of the requirements of student teaching, and that he also had tasks to complete of which the main one was helping her accomplish her tasks. Several times during the first three weeks Bill referred to the list, particularly in reference to increasing the number of lessons she taught.

One task Bill had set was "get to know the school". After discussing the tasks, Bill took Betty on a tour of the interior of the school including the general administrative area where he introduced her to the principal. He took Betty along the main corridor and through the library. As he went Bill interacted with all the pupils and teachers he met including the kindergarten class in the library.

Tuesday morning Bill took Betty on a tour of the external facilities. He drew special attention to the climbing apparatus indicating to Betty that she would be responsible for setting up some challenging activities for the pupils later in the quarter. This did not happen. In Week 2 Bill sent Betty to tour the school by herself which was part of the tasks set by Dr. Thomas to observe pupils in non-physical education settings (see Appendix K). Betty
was successful in observing the pupils, but the extent to which she "got the know the school" was debatable. In the later weeks of the quarter, when Bill sent her to various rooms she still had to check their location with him.

Betty and Bill were able to spend time on these tasks in Week 1 because the first portion of each physical education lesson was used by the school nurse for the blood pressure screening. Depending on class numbers, each class spent between 15 and 25 minutes at the screening. In this "free" time Betty attended to the tasks, and also had an opportunity to observe the parent volunteer system in operation. Each morning four mothers attended the school to operate the sphygmanometers at each of the screening stations. On one occasion a parent volunteer was late. The school nurse asked Bill to help. When he was unable to do so, the nurse asked Betty. This constituted an impromptu task for Betty.

Betty's principal tasks during the blood pressure screening was, however, to learn the pupil's names -- five in Week 1, and ten in Week 2 in each class. This number was quite arbitrarily chosen by Bill. He suggested that Betty use maps of the "homes" in the gymnasium to write down the names after she had asked the pupils, and to include a descriptive characteristic of each pupil. Bill monitored Betty's performance on this task in several ways. He would simply ask her to name five pupils in a class, or he would ask her to name the pupils as they lined up and left the gymnasium. He told the pupils to give her two seconds and then to tell Betty their name. Michele also suggested techniques for remembering names.
After Betty had taught grade 6 in Lesson 3 on Friday of Week 1, both Michele and Bill complimented her for using ten names during the lesson.

Monitoring of the number of names Betty had learned ceased after Week 2. The focus then became how Betty used the names to give the pupils' feedback on their skill performances, and on directing behavioral interactions, especially disciplinary comments, to specific pupils rather than global comments to whole classes. This proved to be very difficult for Betty suggesting that she was not able to recall all the names she had learned in the first two weeks.

Learning pupils' names was presented to Betty by Bill as one task. The task actually had its origins in the list of tasks given to the physical education student teachers at their first briefing session with Dr. Thomas, who had included learning names as one example of "3 management-related objectives" to be prepared before Week 1. The execution of this task may in fact constitute a host of subtasks — one for each pupil. For physical education student teachers, like Betty, teaching in two schools, the task was of considerable magnitude because of the number of different classes taught each week in the elementary school. By Week 6 Betty was teaching nine intermediate grades and three primary classes with the kindergarten pupils attending alternate weeks giving her a weekly total of 12 classes, and 120 names. At the secondary school, she only taught two classes and had the same classes each day for several consecutive lessons. Betty, therefore, found it easier to
get to know the secondary pupils. She continued to work on names all quarter and realized the value of being able to address individual pupils. The issue requiring further investigation is the determination of a reasonable target number, and the rate at which it should be increased.

When asked by the researcher if she had any particular plan for getting to know the school, Betty replied that she probably ought to but she had not made any specific plans for herself.

Another task set for Betty for Weeks 1 and 2, was to introduce herself to the staff. She did this when she used the photocopying machine, but generally her interaction with staff other than Bill was limited to field days in Weeks 8 and 10, and social conversation with a grade 6 teacher who was also a high school coach.

In the assignment Betty completed for Dr. Thomas in lieu of attending the second briefing Betty gave very brief descriptions of the school, the physical education program, and identified "homes" and time out as established structures she would use. This suggested that she had been partially successful in "getting to know the school" but her inability to locate rooms in the building, and use specific pupil names later in the quarter indicated that she still had gaps in her knowledge.

Field days

Both the primary and intermediate grade physical education programs culminated in their respective field days. Betty was gradually introduced to the nature of the field days, and her
responsibilities, or tasks. The tasks fell into three groups. First, in lessons Betty was to motivate the pupils for field days by encouraging them to improve their times and distances, and to brief the pupils on the conduct of the field days (see Appendix M). Second, Betty was responsible for drafting a letter to the secondary school principal to seek his cooperation, and recruiting the helpers. Although Betty inquired several times as to when Bill required the letter, and did draft it, Bill eventually organized it himself through the school secretary. Betty recruited nine members of her freshmen softball team for the grade 5 field day. Third, Betty was Bill's assistant in transporting the equipment to the high school track from Tiergarten, and conducting the events. Over the three days, Betty's responsibilities increased until she was in charge of the grade 5 day.

Field days permeated all lesson through the activities of the lessons. Bill gradually introduced Betty to the organizational tasks. In the Thursday planning period in Week 3, he described the conduct of the intermediate grade field days in detail, and repeated most of this information again in Week 6 after which there was almost daily reference to one or more aspects of the field days. Betty indicated that she was excited to see how the field days would work but when the researcher sought clarification from Betty about some of the organizational details she was not able to provide specific answers which suggested to the researcher that Betty's understanding of the field days was incomplete. Likewise, when
Michele later asked Betty what were her responsibilities on field days, Betty was only able to list some but not all duties.

Bill employed the same techniques to teach Betty about field days as he did with other aspects of the school. He placed emphasis on being involved. In the post-lesson conference on Friday of Week 7 Bill stated, "I could spend some time explaining how this (field day) works but it's a lot easier to just go do it after the first event 'cos I'll be explaining to everybody."

The "everybody" to whom Bill referred were the high school helpers. On the Monday morning of the first intermediate field day Bill briefed the helpers and Betty, then had the helpers practice the procedures for timing races and organizing the pupils. Betty was in charge of the timing. Wednesday and Thursday Betty briefed the helpers and directed their practices indicating that she had grasped the main features of the organization from her involvement on Monday. Thursday Bill advised Betty to slow down her hustling of pupils through the events so they would not finish too far ahead of schedule and have to return to school for classes. After the pupils had departed from the track in the afternoon, Bill discussed the field days with Betty. She said she understood why he wanted her to slow down. She also stated the organization could have been improved by posters displaying events and teams but otherwise she thought the field days were very successful.

Bill followed the same format with the primary grade field days in Week 10. Monday morning he briefed the grade 5 helpers and Betty. During the morning he wrote a list of points for Betty to
cover Tuesday with the grade 6 helpers. There was, however, confusion over her competence to impart the list to the helpers on Tuesday. Without actually consulting the list she progressed through the items on it with the grade 6 pupils but before she had finished Bill, using the list, began to quiz the grade 6 pupils on items Betty had not yet covered. The field day proceeded in a very similar manner to the previous day suggesting that the helpers were satisfactorily briefed. The value of Betty's briefing of the pupils cannot be fully determined since it was possible the pupils may have drawn on Bill's quiz, and their previous experiences in their own field days.

For Betty the field days were the highlight of her student teaching experience. After the first field day Betty wrote in her journal:

It was quite an experience today. It's pretty amazing to see how all of the bits and pieces of the past few weeks all come together. The kids were amazing. . .most were so competitive and others just wanted to get a ribbon. I had a great time working with the kids, and also the workers. The workers were very supportive of the (pupils). (Bill) had everything organized extremely well and best of all, the kids knew what was expected of them.

When asked at the final interview what had been the highlight of student teaching, Betty replied:

I think the biggest thing was seeing field day and how everything came together. (The) softball unit just kinda. . .(I) couldn't really give a lot of time to it just because you were squeezing the track and field into it with the softball, and doing a little bit each time. Then seeing it all come together on the field day, and seeing the enthusiasm of the kids, I thought that was the highest spot of the lot.
The low spot of the experience for Betty was softball because she could not work on the pupils' technique. The time pressures to complete and record the track and field events frustrated her.

In summary, Betty learned the context of teaching at Tiergarten through the tasks set for her by her supervisors. She did not have a specific plan of her own. The tasks directed her to "get to know the school", and to learn the pupils' names. She was able to work on these tasks in Week 1 because time was available at the beginning of each lesson while the pupils attended the blood pressure screening. Both Bill and Michele monitored Betty's performance on the tasks. The degree to which she accomplished the tasks would, however, appear to be in doubt since she needed further guidance in the latter stages of the quarter. At all times, the emphasis on learning the context was through active participation.

Cooperating Teacher Teaching the Student Teacher

The preceding discussions of the student teaching experience per se, and the student teacher learning the context of the experience placed emphasis on the behaviors of the student teacher, Betty. This section addresses the behaviors of the cooperating teacher, Bill, as a teacher of the student teacher to answer the subquestion:

3. to what extent did the cooperating teacher and/or university supervisor teach the student teacher about the context of teaching in that school?
The behaviors were drawn from an analysis of the occasions on which Bill and Betty interacted. The conferences of the dyad have been previously discussed in the description of the student teaching experience and will be expanded but more emphasis will be placed upon the behaviors that occurred in lessons, that is, between the conferences. There will be no further elaboration of the interaction of the triad beyond their conferences which were previously discussed in the description of the student teaching experience. The triad did not interact at Tiergarten between conferences, although it was readily recognized that Betty, Michele and the cooperating teacher at the high school formed another triad which did interact between meetings of the triad at Tiergarten.

The three terms used to describe Bill's behaviors as Betty's teacher were: (a) proactive; (b) interactive; and (c) reactive. Proactive behaviors described Bill's behaviors prior to Betty teaching a lesson. Interactive behaviors occurred when Bill interacted with Betty during lessons. Reactive behaviors occurred after Betty had dismissed the classes. The behaviors were considered in terms of actions.

Proactive

Bill's proactive teaching behaviors included the preview of Betty's lesson plans at the beginning of each week from Week 3 onwards for the intermediate grades, and prior to her teaching each of the primary grades, and demonstrations of activities and lessons.
The researcher usually arrived at Tiergarten before Betty each morning and exchanged greetings with Bill. Voluntarily he mentioned to the researcher on two occasions when Betty was late arriving that he was in a quandary. For example, in Week 3 Bill wanted Betty at Tiergarten by 7:45 a.m. When she had not arrived by 7:55 a.m. Bill mentioned to the researcher that he was "toying with the idea of letting her burn today, not being here early enough to set up the field." On the other hand, he wanted her to get off to a good start with softball so he began to get the mitts, bats and balls ready and place them in the gymnasium. Betty arrived at 7:56 a.m. The lesson plan she showed Bill was incomplete.

The amount of detail on Betty's plans became a point of tension between them. Betty did not submit her plans in advance except for one grade 2 lesson. Betty's lesson plans tended to be brief with simply names of the activities and few details about critical elements, or organizational and interpersonal activities. Bill would read the plan, and often write comments or keywords on it, or draw diagrams of placements and formations. He also asked Betty to verbally explain what she was going to do. Bill would then make suggestions as to ways in which Betty could improve the lesson, and alert her to possible outcomes of her plans. For example, prior to grade 2 lessons in Week 6:

Bill what have you got?
Betty handed her lesson plan to Bill
Bill you're so organized
Bill took the lesson plan and began to read through it.
Betty and then tomorrow I was going to try Mr. Wolf, or What's the Time, Mr. Wolf? with balls
Bill any cautions about throwing the balls?
Betty like above the waist or something
Bill yeah (pause) rules, safe play area, what kind of balls are you going to use?
Betty those plastic ones (pause)
Bill okay. . how are (you) going to determine who's "it" for the ball dribble tag?
Betty . . .listening, and who comes in first, who's doing
Bill what they're supposed to be doing (inaudible)
Betty I mean how are the kids going to find out who's "it"?
Betty I will tell them. I mean, you're listening nicely
Bill yeah, I would say that we're playing a game and you threw your ball at someone, you lost control of your ball in dribble tag
Betty yeah
Bill is everybody going to have a ball or what?
Betty no, only the seven people who are "it", the seven people or so
Bill (pause) what happens when they lose control of it (ball)?
Betty they can't tag anybody
Bill yeah, but how are we going to tell who's "it"?
Betty oh, they'll have shirts or pinnies
Bill the same for Ducks and Hunters
Betty yeah
Bill wrote on the lesson plan

Betty used the time to seek further details from Bill. Often she asked him for further details about the impending lesson. For example, with her first lesson in Week 6 on Tuesday (she was absent on Monday, and Bill taught the classes):

Betty well, okay, the next question that I had, and I wasn't sure about it. . . did you get (softball) going on the two fields, or did you just have one game going on the field?
Bill yesterday I had two fields going
Betty then how do you keep watch on both of them, 'cos aren't they kinda far apart?
Bill run back and forth
Betty do you?
Bill they'll do pretty good if you set expectations down (saying) here's what you want to do
Betty mm mm
Bill it worked great yesterday
Betty how did you divide the teams?
Bill color homes, gym homes
Betty how did you get them even?
The conference continued in this format through a discussion of the organization of the 1500 meter run as well. Betty taught the lesson to grade 4. Bill was dissatisfied with it so he taught the same content to grade 5 in Lesson 2. Betty taught the remaining lessons for the week following the content from Bill exactly.

Bill also taught demonstration lessons (apart from Week 1, and the primary grades) in the first period Monday in Weeks 3 and 7, as well as the second lesson on Tuesday in Week 6. Part of the problem may have been Betty's inability to fully understand Bill's pre-lesson comments. As Betty observed the Week 3 lesson she commented to the researcher, "this really working out better than I thought it would. I really didn't understand what (Bill) was saying inside." In the final interview, Bill stated that there were times in the quarter when cooperating teachers still needed to have the student teachers observe them.

When Bill returned each lesson plan to Betty she would adjust it. Betty wrote her lesson plans in pencil and used an eraser to make alterations immediately. This proved to be problematic for the researcher. The lesson plan that became available to the researcher was the adjusted one, not the original.

With shot put and javelin, Bill used the planning period on Thursday in the week before they were taught to demonstrate to Betty the technique to be used, the equipment, and how to set up the special measuring grid. Betty had several practice attempts with the equipment. Bill then directed her to consult The Midwestern University Five Star booklet for the critical elements to be taught.
in each activity. A similar approach was used with a soccer kicking activity for grade 2. On one occasion Bill demonstrated an activity with water filled balloons which Betty used with moderate success with her high school softball classes.

**Interactive**

Bill was both an overt and covert observer of Betty as she taught. As an overt behavior at some stage in most lessons he would observe her, positioning himself as close as possible to the class without endangering himself or the pupils. He did feel, however, that student teachers needed some time alone with their classes. Therefore he sometimes observed from a distance, for example, standing at the gymnasium door when the class was about 75 yards away on the soccer pitch. His covert observations were mentioned in passing during one post-lesson conference:

Bill  I've been watching you. I was watching through the kitchen window
Betty  oh really, I figured you were going to be watching somewhere in the area
Bill  I've learned to sneak around like all kids
Betty  yeah
Bill  I saw you helping (grade 4 girl)
(Bill then continued to elaborate upon the lack of involvement of the grade 4 girl).

As an overt observer Bill was able to interact during lessons with Betty. There were several different patterns. Bill would approach Betty, or vice versa. Their interaction took several different forms: (a) private; (b) public; (c) private-public; and (d) public-private.
Private

Bill would approach Betty, and speak to her very quietly so that the pupils could not hear their conversation. The researcher was, however, often able to get some indication of the focus of the interaction by observing the direction they were facing, and their nonverbal gestures as the following extract from the fieldnotes of the grade 2b softball batting lesson on Thursday of Week 1 indicated:

(Bill) moved to (Betty) and used his arms to apparently point out the boundaries.

Later in the same lesson during a tag game:

(Bill) went over to (Betty) and after a brief chat in which he pointed to the pupils who were sitting quietly, (Betty) gave less flags and only to pupils who were sitting quietly.

During a later discussion with the researcher, Bill indicated that these private conversations had been directed towards improving the safety of the lessons. He did a lot of "subtle coaching". In the final interview Betty explained that Bill had helped her clarify her explanations to the pupils.

Public

Some of Bill's comments to Betty during lessons were audible to the whole class. Early in the quarter he praised her in front of classes to boost her "teaching self-image". For example, in Lesson 1 with grade 4 on Wednesday Week 1, "She's a pretty good teacher. She gets better every time."
Other public interactions were more in the form of reminders to Betty following up information exchanged in the lesson preview. For example in the grade 2b lesson on Wednesday of Week 4:

Mr. Stanley (Ms. Snow) remember I told you a couple of people to watch that are real dependable
Ms. Snow that's right
Mr. Stanley that do their exercises correctly. Didn't I tell you who that was?

Sometimes when the classes were playing tag games Bill would join a team and help them develop a strategy. Betty took this as a cue for her to join the second team to assist with their strategy. Bill also interacted with the pupils to remind them about their technique, or during the track and field events, he asked about the records and if any of the pupils were close to the records that day.

On two occasions, Bill took over and gave the explanations of placements to the pupils. The first occasion was during Lesson 1 on Monday of Week 4 when Bill placed the pupils along the carpark lines for javelin practice. The second occasion was in Week 5 when Bill explained the track markings to a class to help Betty understand the special color coding of distances marked on the track and a portable bulletin board.

Private-Public

Private-public interactions began with Bill talking quietly to Betty and then one of them repeating the main points of their conversation to the pupils. For example, just as the Wednesday grade 4 pupils were about to run their 1500 meter event in Week 6,
Bill walked over and spoke quietly to Betty who then addressed the class:

Ms. Snow . . . do you know what (Mr. Stanley) just told me? (inaudible) He told me that only two people would finish this race.

The pupils yielded that they would.

Ms. Snow ohhhh, it's a sixth grade race. Do you guys believe that?

Mr. Stanley made an inaudible comment.

Ms. Snow why don't you guys see what you can do

Public-private

There were a few occasions during which Bill called Betty aside when she was addressing the group, and made a quiet comment to her about the activity or pupils. For example, while Betty was putting grade 2b through their warmup in Week 6, she asked if they were all working. Bill called her aside and explained to her about one girl with an injured arm.

Reactive

After most lessons, and particularly at the end of the morning Bill would spend time with Betty discussing the lessons. Again he used a variety of techniques to teach Betty. If he had coded her using the B-ALT:PE Observation Schedule, or had counted her behavioral interactions, or simply timed segments of lessons, then the discussions focused on these with the recorded data used as a teaching aid. Written comments, and diagrams were also used.

In one post-lesson conference Bill gave Betty a tennis ball which she immediately began toss and catch to herself. Bill then asked her what had annoyed her most with the grade 2a pupils she had
just taught on Thursday of Week 5. Betty replied that the pupils had bounced the playground balls while she was talking to them. Bill asked her what she was doing with the tennis ball. Then Bill discussed with Betty techniques she could use to stop the pupils from fidgeting with equipment.

Bill tried to be positive in his comments and would give Betty a pat on the back, or tell her that she "was on a roll" meaning that she was progressing satisfactorily. However, after Betty experienced the rough of "the slump" in Weeks 5 and 6, Bill found himself giving more negative comments. He was concerned by this because he did not like to be negative. He also tried to empathize with Betty and on three occasions told her about his first encounter with kindergarten pupils. He had stood up to talk to them while they were sitting on the floor. Some of the pupils had burst into tears. Later, the school secretary had explained to him that he probably intimidated the pupils by his sheer height. Betty appreciated his efforts to help with anecdotes. During the final interview she commented on how he could "relate from where he started out to where he is now, and he always seemed to give me little hints on how to make things easier for yourself."

Bill tried to relate his proactive, and reactive behaviors. This occurred particularly when he used the observation schedule, or counted behavioral interactions. He would tell Betty prior to her teaching what he would be observing, and then after the lesson, or as soon as possible react to his observations. At other times his interactive and reactive behaviors were determined by the lesson
itself. Bill commented to the researcher during his interviews that he would like to be able to construct a bulletin board in the physical education office which displayed the teaching behaviors the student teacher was working on, and the progress being made. He also wondered about the possibility of the student teacher undertaking all early field experiences in the same school with the same cooperating teacher as for student teaching so that less time need be spent by the student teacher learning about the school.

In summary, Bill was actively engaged as Betty's teacher. His behaviors were described as proactive, interactive, and reactive to concur with the times as which he interacted with Betty, that is, before, during, and after lessons. In each stage he used a variety of teaching techniques and teaching aids. Most of his communications were verbal, although on occasion he did demonstrate the physical activities Betty was to teach the pupils.

Observations by the Student Teacher
During Teaching, and Consequences

The preceding sections have described how student teaching was organized for Betty to learn the context from her interactions in the physical education student teaching context at Tiergarten. Attention will now be directed to the two subquestions guiding this section of the case study:

4. who or what did the student teacher observe during student teaching and what were the consequences?

5. who or what did the student teacher not observe during student teaching and what were the consequences?
The findings for who or what Betty did or did not observe were, however, tentative since there were a number of limitations which curtailed the data collection especially to answer the fifth subquestion. Hence the analysis for these subquestions tended to be of higher inference than other sections of the analysis. The limitations will be presented before the findings in order to frame the discussion of the findings.

Limitations

The principal limitation to the data collection was the selective nature of observation as method. Even with multiple data collection methods the researcher purposefully selected the aspects of lessons to be recorded. The decision rule was to report where Betty was, to whom she was talking, and what she was saying. This became very problematic from Week 3 onwards when the intermediate grade lessons were taught outdoors. Betty was often separated from the pupils by considerable distance. For example, in Week 3 when the pupils were completing the sprints Betty assembled the pupils in one group and gave them the information about the starting procedures, she then jogged off to the finish line which was 70 meters, and later 200 meters from the pupils (see Figure 13 in Appendix D). In Week 6 the classes were divided into two groups to play softball on the two diamonds which were about 200 yards apart. Betty jogged back and forth between the diamonds. The researcher had to move cautiously to limit her intrusion upon the natural stream of events, and often decided to remain in one location. On
one occasion when the class was working in two different venues, the researcher began to move from Bat Four on the soccer pitch to the 800 meters on the track, and the pupils took that as their cue to move.

Reliance upon Betty's verbalizations and written work limited collection of data for the fifth subquestion -- what was not observed. The research plan had been for the researcher to ask Betty after each lesson "did you see...?" It quickly became obvious to the researcher that there was not always sufficient time between lessons to talk to Betty without becoming intrusive, and hindering Betty's preparation for the following lesson. More importantly, the researcher had to allow Bill and/or Michele to hold their conferences before the researcher spoke with Betty to maintain the natural sequence of events in student teaching. Frequently, Bill and/or Michele asked a similar question to that planned by the researcher, or made suggestions to Betty on how to improve the lesson which included the points the researcher had intended to cover. On those occasions when the researcher asked Betty about specific events the researcher had observed but about which there had been no verbalization during the lesson, Betty always replied affirmatively. For example, in Week 4 the researcher asked Betty if she had seen a grade 6 boy carrying a broken piece of javelin in his mouth as he ran the 800 meters, Betty said she had seen it. (He did `remove it after one lap.) A couple of times Betty reversed the situation, and asked the researcher if the researcher had seen a
particular event, for example, a dog at a house adjacent to the school.

The researcher could not assume that because Betty did not verbalize or write about an activity, that she had not seen it. There were a number of considerations here. First, she may not have seen what Bill, Michele, or the researcher saw or heard, and they may not have seen or heard the same things as each other, or Betty. Second, Betty and Bill often choose not to verbalize to the pupils about what they did see. This is consistent with the principles of applied behavior analysis in which minor dismeans are ignored to avoid reprimands reinforcing and supporting inappropriate behavior (Siedentop, 1983) as for example, a pupil commenting to another while Betty was explaining the shot put technique. Third, she did see and hear, but had no strategy with which to deal with the event so choose not to verbalize about it. Fourth, she may have seen and heard but was unable to express a verbalization. In discussions with the researcher, Betty mentioned that she found it difficult at times to express herself. This tended to occur during discussions of her emotional reaction to "the slump" but it may have been a problem in other situations as well. Fifth, she may not have seen the exact occurrence drawn to her attention but acknowledged it when raised in discussions. Sixth, the pupil corrected his or her behavior before Betty could speak to him or her.

Furthermore, it was difficult to gauge the correspondence between observations and verbalizations. Often the verbalizations
Betty's observations during lessons

Betty's observations during lessons were classified by the researcher according to the three types of activities, that is, instructional, organizational, and interpersonal. Each will be discussed in turn.

Instructional

Betty mentioned several times to the researcher that she was particularly concerned with the technique with which pupils performed physical skills. When the pupils were practicing an activity she gave feedback to them about their performance. There was, however, a change in the focus of the feedback. During Weeks 1 and 2 when she was assisting Bill, and the classes were taught indoors she gave very specific skill feedback, and often took a pupil aside to go through the specific sequence of a skill especially in the triple jump. As her instructional responsibilities increased the feedback became more global with "good job" being a very frequent comment. Bill and Michele both urged her to be more specific in her feedback statements in terms of what she said, and to whom she directed feedback. Bill continually emphasized with the primary grades the need to give feedback directed towards the pupils' skill execution.

When the pupils were competing in the time trials for the various running events Betty cheered them as they ran, and
encouraged the pupils not currently running to cheer for each other. In the longer track events she included information about the number of laps the pupils had completed, or still had to run. She was able to specify which pupils had or had not completed the required distance.

**Organizational**

Betty's observation of organizational activities were most often related to transitions between venues, and equipment. Betty made lots of statements to the pupils to hustle. Frequently she counted, but it was not until the later stages of the quarter that the purpose of her counting was linked to specific consequences for the pupils although she had gradually implemented Bill's system of rewarding pupils who were quickest with first choice of equipment for the next activity, or a special position in the next activity, for example, "it" in a tag game with grade 2.

Betty saw where equipment was, and how it was being used. She indicated to the pupils the appropriateness of the way in which they were using it. When Betty was introducing each activity she spoke about the way in which the pupils were to hold the equipment, and would direct them to look at her grip, for example on the shot put, or javelin. As she moved amongst the pupils when they were practicing she would adjust their grip, or stance in relation to the equipment being used.

One of the more enduring problems she experienced with the equipment was having pupils move to it before she had finished her
instructions. On most occasions she would caution the pupils not to move, or ask them if they had been told to get the equipment. Bill suggested that when she wanted to speak to the pupils she assemble them away from the equipment, or give them specific directions about how they were to hold the equipment such as the primary grade pupils holding the playground balls between their knees. Appropriate use also included telling the pupils to "keep off" or "get off" the larger items of equipment stored around the gymnasium but this intended to occur infrequently. She did, however, require frequent prompts from Bill to set her standards for the pupils.

At the end of each outdoor lesson the equipment had to be gathered up and taken inside. At first Betty would generally direct the pupils to "bring the equipment in". She became more specific as there were fewer items left to be collected, and she would direct a specific pupil to go get it, or she would collect it herself.

When conducting track events on the carpark Betty also had to be alert to cars and buses entering and leaving the carpark. She would draw the pupils' attention to the vehicle but generally allowed the activity to continue and relied on the driver to avoid the pupils. During Week 4 Bill showed Betty how to place marker cones across the carpark entrance to warn incoming vehicles. After several prompts by Bill during the week she eventually set these cones out as part of her routine equipment set up at the beginning of each day, or placed the cones nearby to set out when the track was first used each day.
**Interpersonal**

Betty's verbalization suggested that she was aware of where the pupils were as she directed them to placements or formations, and heard many of their interactions.

With most of the track and field events she told the pupils where they were to go before they left the gymnasium, and how to assemble when they reached the venue. When she arrived at the venue she would scan the group and then move amongst the pupils physically placing them in the required placement or formation. The most problematic situation for her with track and field was the free practice for field days in Week 7. Betty, following Bill's demonstration in Lesson 1 Monday, simply listed the available events, and allowed the pupils free movement between them while Betty herself randomly visited each. After Lesson 3 on Monday Michele recommended that Betty institute a planned rotation system to insure equitable distribution of the pupils at each activity, and hence increase the pupils' engaged time. Betty did not do this.

With the softball activities she was less specific in her directions for placements. Bill had recommended that she use the gym "homes" as the basis for forming teams but she was generally unsuccessful at this and resorted to walking amongst the pupils and pointing to each individual to indicate to which team they belonged. During his final interview, Bill stated that he doubted if she had fully understood the "homes" system. Several times she was observed organizing teams in such a way that the pupils had to go to the opposite end of the gymnasium from their homes creating
extra transitions, and confusion. Red and blue homes were at the southern end, black and yellow at the northern end, yet Betty had red and blue line up at the northern end so the pupils had to walk between the members of the black and yellow teams.

Bill expressed his concern to the researcher during the final interview that Betty did not always seem aware of the safety requirements of particular activities. He cited as supporting evidence how close to the batter Betty had allowed the pupils to stand during softball. Bill found this difficult to understand since Betty was herself an experienced player and coach of softball.

Betty, by her movement to people, indicated that she observed specific pupils. In Week 1 she was well aware of the tall girls in grades 5 and 6 and commented several times to the researcher that she would like to recruit them for basketball (see Betty's Frame of Reference). Later she became aware of different types of pupils. Three girls in particular gained her attention. They were mildly disabled. Betty would help each one by physically guiding their grip and stance for an activity, and encourage them with lots of feedback. When other pupils were nonparticipants Betty encouraged them to try the activity, or if that was not possible she called on them to watch demonstrations and remain close to the rest of the class. On most occasions she attended promptly to pupils who were injured during classes, checking the injury and either sending them to the nurse, or Bill, or encouraging them to continue the activity at a reduced effort particularly those pupils who complained of cramps during the longer track events. When appropriate she also
explained to the class why the injury had occurred and how further injuries could be prevented.

Late in the quarter Betty was able to direct specific discipline measures to specific pupils as Michele recommended. With pupils who spoke at inappropriate times Betty initially called for the whole class to "listen up". Often times this had to be repeated several times at one occurrence, and frequently during the lesson. When classes were particularly difficult and Betty had frequently called "listen up" with minimal response, she would call the whole class together to discuss "their problem". There were, however, few obvious changes in the pupils' behavior resulting from these discussions even though she gradually implemented Bill's system of rewarding quiet pupils with first choice of the equipment for the next activity, or to be first to line up, or to get a drink of water.

During the later stages Betty was more specific, and physically contacted the pupil either with her hand on their head, or holding their lower jaw. She also learned to vary the volume of her voice, and like Bill, would speak particularly quietly to pupils to gain their attention.

Two established structures were available for her to use with pupils behaving inappropriately -- time out, and sending the offenders to the principal. In Week 2 she wrote in her log to Bill that she had been hesitant to place a grade 6 by in time out. In a later discussion Bill asked if she was still hesitant. She said, "No". Time out had reduced the behavior problem but she was very
inconsistent in her use of time out, and it was not until Week 9 with the grade 2 pupils that she used time out consistently, and with explanations to the pupils.

Bill told her early in the quarter, that pupils with behavior problems could be sent to the principal. On Friday of Week 6 she sent two boys from grade 5 to the principal. Bill reported to Betty that they had completed a written assignment. For the remainder of the quarter those two boys were amongst the first pupils at school each day to help set up equipment. When asked in her final interview if she had spoken to either the principal, or the boys, about that occasion, Betty indicated that she had not followed up in any way.

Bill commented to Betty several times that she needed to establish her own rules and consequences with the pupils but this did not happen. After one difficult grade 2 class on Wednesday of Week 7 Bill reminded her again to set her own signals and explain them to the pupils, Betty replied that she thought the pupils would know from him. Bill explained that she could not rely on that since he changed his rules and had different systems. Furthermore, the researcher also wondered subjectively the extent to which established structures can operate in physical education classes that meet only once per week or less (with the kindergarteners), and especially at Tiergarten where there was a student teacher every quarter.

Two further comments which overlap the three activity groupings were warranted about Betty's observations. First, in Week 1 Michele
praised Betty for her demonstration of with-it-ness, that is, of being able to attend to individual pupils, especially the less able ones, and to the whole class (see Betty's Frame of Reference). During her own self-evaluation with Dr. Thomas at the "burnout" briefing session in Week 8 Betty selected with-it-ness as her most successful accomplishment. As Dr. Thomas indicated there were no objective measures of with-it-ness. Betty's teaching behaviors during student teaching peaked at about Week 2 and then deteriorated through "the slump". She was gradually re-gaining her original levels but the overall fluctuation suggested that with-it-ness was not a consistent feature of her teaching.

Second, Betty was concerned with the time boundaries of her lessons. Until Week 3, Betty tended to go over the allocated class time which meant the pupils were late returning to their classrooms, and she had little time to prepare for the next class. After the second lesson Tuesday had gone five minutes over Bill advised Betty to be sure to give herself five minutes between lessons for bathroom visits, and to go to the staffroom and interact with other adults. Thereafter, lessons were completed on or ahead of time. In Weeks 4 and 5 Betty found herself with five or more minutes remaining after the pupils had completed their runs. She let them have free play time in the gymnasium. Bill queried why she had done this. Betty thought the pupils had earned it. Bill pointed out that she had not explained the contingency to the pupils, and the free time was not well used. Betty and Bill had to spend time disciplining the pupils who were behaving inappropriately.
The multi-activity structure of the lessons during spring quarter limited the collection of data about Betty's observations, and the resulting analysis was tentative. Likewise, the consequences for the pupils and Betty were also limited. While Betty observed the pupils performance in the track and field events and recorded their scores she did not participate in the computation of the Five Star awards. Bill handed this task over to a teacher's aide and the classroom teachers. Betty did post some of the track and field records set by pupils during lessons, and the pupils milled around The Midwestern University Five Star bulletin board to read the records. Betty did not participate in the grading of the pupils for physical education. Completing the physical education lesson each week would seem to be the end product, especially in softball, and the primary grades.

For Betty there were several consequences. The most obvious and immediate was the constant feedback from Bill and Michele on ways in which Betty could improve her teaching, and how she implemented their advice (to be discussed later in this chapter).

Overall, Betty was graded satisfactory on student teaching and graduated from The Midwestern University with her degree, and certification to teach physical education from kindergarten to grade 12. She did not gain employment in the school district. Bill suggested that student teaching should get easier as the quarter progressed. This was not the case for Betty. In Weeks 5 and 6 there was a marked deterioration in her teaching. It coincided with changes in her life outside of student teaching and therefore the
consequences must be considered in both the local and broader contexts, and with reference to the frame of reference of all three members of the triad in terms of frame sharing, and frame clashes which will be discussed in the remaining subquestions.

**Student Teacher Implementing Advice from the Cooperating Teacher and University Supervisor**

The subquestion answered in this section was:

6. how and when did the student teacher implement the advice of the cooperating teacher and/or university supervisor?

Betty was the recipient of a considerable amount of advice from the people supervising her student teaching experience. The advice was given to Betty in both written and verbal form. Frequently the advice was in the form of tasks and/or goals. For clarity and consistency, the term task will be used throughout the following discussion as most of the written advice included a "goal state or end product" (Doyle, 1986a), and the verbal advice often included the "pattern of action" (Doyle, 1984) to be followed. Betty herself used the term "little things" to describe what she considered Bill and Michele were often looking for as they observed her teach.

This section considers the sequence of people giving Betty advice, and monitoring and evaluating her implementation of it. This will be followed by a discussion of how and when Betty attempted to implement specific items of advice, and the context at Tiergarten which influenced Betty's attempts to implement the advice. The discussion also considers the limitations in the data collection procedures in tracing the implementation of the advice.
The analysis of the tasks proceeded in several stages beginning with the listing of chronological order of all tasks as they arose from the briefing sessions conducted in winter quarter by a coordinator of student teachers from the College of Education, and Dr. Thomas, through the weekly task lists prepared by Bill, and the tasks which arose in dyad and triad conferences. Tasks were categorized according to whether they were for Betty as a student of the teaching-learning process, or as a co-teacher. The latter were further categorized as instructional, organizational, and interpersonal. A single written record was then made of every reference to each task in the fieldnotes and transcripts in chronological order. This information was then plotted on a time matrix of the days and lessons for each task.

Tracing each task was limited by the data collection procedures, particularly the researcher's ability to recognize when tasks were being set for Betty by Bill between and during lessons, for example, in their private interactions, and to immediately follow the implementation in the succeeding lesson. Most of the analysis was completed after the data collection, therefore the emphasis tended to be upon the generic tasks which applied throughout the student teaching experience, and those which Bill and/or Michele discussed with Betty. There were some tasks which the researcher observed Betty implement when Bill and Michele were not present, or to which they did not react.

Examples have been chosen to illustrate the diversity of the tasks, and the fluctuations in Betty's implementation of them. It
should also be noted that the tasks were isolated for the purposes of analysis but in practice they were presented together such as the lists prepared by Bill and Dr. Thomas, or they were even linked together such as learning pupils' names as a management objective from Dr. Thomas. Later this changed by Michele to encourage Betty to give feedback and specific discipline prompts to pupils by using their names.

Judgment of the degree of task completion was made subjectively by the researcher because permanent records were not maintained by the members of the triad. Each task had its own format, and tasks could not be quantitatively equated in terms of the work they demanded of Betty. Furthermore, there was no direct correspondence between all the tasks set and the Criteria for Evaluation and Feedback used in triad conferences.

**Sequence of Task Distribution, Monitoring, and Evaluation**

The tasks originated from the College of Education in written form in the *Student Teaching Handbook* and in verbal form at the briefing session. The package of written materials was actually distributed to the physical education student teachers by Dr. Thomas at the first briefing session. Dr. Thomas, Michele, and Bill supplied Betty with further printed materials in which the tasks were modified to match the context at Tiergarten. The tasks written by Bill were in the form of keywords rather than sentences (see Appendices K and M). In addition, Dr. Thomas, Michele, and Bill verbally explained the tasks to Betty, and sometimes added
additional tasks. These three people monitored Betty as she attempted to implement the tasks, giving her both verbal and written feedback. The sequence in which the tasks were communicated to Betty, and the monitoring of them is summarized in Figure 7.
Figure 7. The sequence of distribution of tasks to the student teacher, monitoring of the tasks, and evaluation.
Some tasks, for example, lesson plans, were communicated to Betty in a linear fashion from the coordinator in the College of Education, to Dr. Thomas, to Michele, and to Bill. In addition, Dr. Thomas communicated information directly to Betty without using either Michele or Bill, for example, during the briefing sessions. Michele also held conferences with Betty at the secondary school at which Bill was not present.

Betty's performance of the tasks applicable to her as a student of the teaching-learning process were monitored mainly by Dr. Thomas, for example, Betty submitted her assignment (in lieu of attendance at the second briefing session) to him directly. The exceptions were the observations Betty made of the art and music teacher giving behavioral interactions. These were monitored by Bill.

Betty's performance as co-teacher was observed by Bill and Michele, and discussed in conferences. Bill and Michele also discussed Betty's performance on occasions when Betty was not present such as when Bill and Michele met socially at sport (see their Frames of Reference). After the final triad conference in Week 10, Michele wrote her recommendation which was submitted to the College of Education. A copy was made available for Dr. Thomas. Although Bill had the Final Evaluation form (see Appendix N) he did not submit it to Dr. Thomas, hence this avenue of monitoring appears as a dotted line in Figure 6.

In addition to the tasks differing in whether they were completed by Betty as a student, or as a co-teacher, they also
tended to differ in their discreteness, that is, the tasks set for Betty as a student had distinct time boundaries for implementation, and monitoring, while the tasks she performed as co-teacher were generally continuous throughout the student teaching experience. For example, one student task Betty completed for Dr. Thomas was the observation of Bill teaching one grade 4 lesson in Week 1. A co-teaching task set for Betty in Week 3 was to increase the number of positive behavioral interactions. This task continued for the duration of student teaching. The two main types of tasks will be discussed in the following section.

Tasks for Betty as a Student of the Teaching-Learning Process

A sample of the tasks set for Betty as a student of the teaching-learning process are listed in Table 10 along with the record of her completion of them.

The details of the briefings, conferences, and observations have previously been described. In summary, Table 10 showed that Betty completed most of the tasks set for her as a student of the teaching-learning process. While those tasks were generally discrete with regard to their time boundaries, for example, the briefing sessions, they served as the origin of the ongoing, continuous tasks for Betty as a co-teacher.
TABLE 10
Tasks Undertaken by the Student Teacher as a Student of the Teaching-Learning Process

<table>
<thead>
<tr>
<th>Task</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Briefing sessions</td>
<td>Betty attended three out of four</td>
</tr>
<tr>
<td>Assignment in lieu of briefing session</td>
<td>Completed</td>
</tr>
<tr>
<td>Attendance at school</td>
<td>42 days (see Table 2)</td>
</tr>
<tr>
<td>Notify school of absences</td>
<td>Left telephone messages</td>
</tr>
<tr>
<td>Teach required number of lessons per week</td>
<td>Completed (see Table 5)</td>
</tr>
<tr>
<td>Conferences</td>
<td>Attended</td>
</tr>
<tr>
<td>Research questionnaires</td>
<td>One out of two</td>
</tr>
<tr>
<td>Evaluation of cooperating teacher and university supervisor</td>
<td>Completed</td>
</tr>
<tr>
<td>Observation of cooperating teacher using B-ALT:PE Observation Schedule</td>
<td>Completed</td>
</tr>
<tr>
<td>Cumulative graphing of own B-ALT:PE data</td>
<td>Completed (see Appendix Q)</td>
</tr>
<tr>
<td>View video of self teaching and write comparison with previous lesson</td>
<td>Video not viewed, comparison written</td>
</tr>
<tr>
<td>Supply coding sheets to cooperating teacher</td>
<td>Made one available for photocopying</td>
</tr>
<tr>
<td>Write questions for cooperating teacher</td>
<td>None</td>
</tr>
<tr>
<td>Write log for cooperating teacher</td>
<td>Six in Weeks 1 and 2</td>
</tr>
<tr>
<td>Participate in mock interview with principal</td>
<td>Not completed, principal ill</td>
</tr>
</tbody>
</table>
TABLE 10 (CONTINUED)

<table>
<thead>
<tr>
<th>Task</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observe pupils in a non-physical education setting</td>
<td>Once, grade 5</td>
</tr>
<tr>
<td>Count behavioral interactions of cooperating teacher</td>
<td>Completed</td>
</tr>
<tr>
<td>Observe art and music teachers and count behavioral interactions</td>
<td>Music teacher, art teacher had a student teacher</td>
</tr>
<tr>
<td>Check out rest of school</td>
<td>Week 1 with cooperating teacher as guide, later on own after asking cooperating teacher for directions</td>
</tr>
</tbody>
</table>

Tasks for Betty as Co-teacher

The tasks Bill set for Betty as a co-teacher were described as generic since they were applicable to her teaching of both the intermediate and primary grades. These tasks were further categorized as instructional, organizational, and interpersonal. Each will be discussed in detail.

Instructional tasks

A sample of the instructional tasks undertaken by Betty are summarized in Table 11 after which each will be discussed.
TABLE 11

Instructional Tasks

<table>
<thead>
<tr>
<th>Task</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review graded course of study for school district</td>
<td>No record of task completion</td>
</tr>
<tr>
<td>Prepare unit plan</td>
<td>Completed Week 2</td>
</tr>
<tr>
<td>Prepare lesson plans</td>
<td>Completed</td>
</tr>
<tr>
<td>Prepare palm cards</td>
<td>Not attempted</td>
</tr>
<tr>
<td>Survey periodicals</td>
<td>Reference books used frequently, completed</td>
</tr>
<tr>
<td>Teach lessons</td>
<td>Completed</td>
</tr>
<tr>
<td>Voice</td>
<td>Variations noted by Bill and Michele</td>
</tr>
<tr>
<td>Develop &quot;Bag of Tricks&quot;</td>
<td>Only one activity observed with grade 2</td>
</tr>
<tr>
<td>Revision of each lesson</td>
<td>Completed in most lessons</td>
</tr>
<tr>
<td>Increase activity time, reduce waiting time</td>
<td>Attempted (see Table 15; see Appendix Q)</td>
</tr>
<tr>
<td>Prepare waiting time activities including peer feedback</td>
<td>Peer feedback included in javelin, no waiting time activities in softball</td>
</tr>
<tr>
<td>Brief pupils for field days</td>
<td>Attempted</td>
</tr>
</tbody>
</table>

**Unit plan**

Betty was required to prepare one unit plan at Tiergarten for the intermediate grades softball, and track and field. Dr. Thomas provided the format guidelines during his first briefing session. It was the same format as that used previously by Betty in her
physical education Secondary Core course at The Midwestern University. She showed the unit plan to Bill on Wednesday of Week 2. He commented that it was "fine". Betty then submitted it to Michele. In the post-lesson conference in Week 3, and again during the final conference during Week 10, Michele commented that the unit plan was not unsatisfactory but Betty needed to be more thorough in her analysis of the pupils' needs, the task analysis (that is, the component skills and critical elements of softball, and track and field), and describing the resources she would use while teaching. A unit plan was not required by Bill for the primary grades because Betty was using those classes for "experimentation".

Lesson plans

By Week 6 Bill required five lesson plans from Betty each week — one for the intermediate grades, an alternative plan in case of rain, one each for grade 2 Wednesday and Thursday, and one for the kindergarten class on Friday. Bill often had to prompt Betty to get the plans from her at the beginning of each week, or each day with the primary grades after which he would read them. Generally modifications were required. Bill would either write on the plan, or Betty would erase her original plan and rewrite it using Bill's comments.

Bill and Michele both encouraged Betty to modify and change her lesson plans as she taught the same content repeatedly each week. The lesson role-by-time matrices showed that this did not happen.
Once the plan was established on Monday it was used throughout the week unless changes were forced by weather conditions.

**Palm cards**

To motivate the pupils for track and field, Bill suggested during Weeks 3 through 6 that Betty carry a card with her listing the records for the activity featured each week. These cards are often referred to in physical education as "palm cards" because they should be small enough to be carried in one hand. Bill wrote the information for Betty during Week 3, but she did not develop a system for preparing this information for each class. When the pupils asked her about records she would say that she did not know, and refer the pupils to The Midwestern University Five Star bulletin board in the gymnasium. When Betty experienced difficulties with her teaching in Weeks 5 and 6, Bill again suggested that she use cards to remind herself of the lesson content, and the particular co-teaching tasks she was working on "cos I know when you get out there there's so many things hit you." In Week 7 Bill was perturbed that Betty did not carry the sheets he had written out with the intermediate grade field day information. In the final interview the researcher asked Betty if she was reluctant to put her plans on paper, Betty explained:

probably what I should have done was go through with the cards but see I didn't want to have to be sitting there looking at my little card each time to see what I was going to do. I probably should have though just so I can get my mind trained to cover all the areas.
Betty then continued to suggest that she could understand why Bill wanted more details but she did know what she was going to do in each lesson even if she did not have it written down.

Michele and Bill both suggested that Betty should also make notes about changes to her lessons, and record comments about pupil performance but this advice was not acted on.

**Survey the periodicals**

One of the tasks Bill set for Betty for Weeks 1 and 2 was to survey the periodicals. In his verbal explanation of this task Bill showed Betty the reference books in the shelves above her desk and suggested which ones were more appropriate to the activities in the quarter. From Week 2 to Week 7 Betty used The Midwestern University Five Star manual to select the critical elements for each track and field event. She referred to a variety of books for games for the softball component of her unit plan. Bill directed her to a special text, *Silver Bullets* (Rohnke, 1985), for details of the adventure games for Week 9. There was, however, confusion at this time when Betty had to use her alternative rain day lesson plan. She selected activities from the books but Bill cautioned she still needed to plan in detail on paper because the activities were presented in the books to "sell those books". Planning on paper would alert her to the safety procedures she would need for the pupils.

**Teach lessons**

Betty taught 70 lessons and team taught one with Bill (see Table 7). Bill increased her "instructional duties" from one
critical element in Lesson 2 on the first day, until she taught the entire Lesson 3 on Day 5. Initially, however, Betty seemed a little reluctant. As soon as Betty arrived at Tiergarten each morning on Days 2 and 3, Bill asked her which parts of the lessons she wanted to teach. She did not reply. After a short time Bill would tell her the critical elements and activities she was to teach. She did so competently. Betty taught the required number of lessons at Tiergarten.

Overall, Betty received few comments or advice about the subject matter. Bill and Michele were both pleased with Betty's explanations of the track and field events. Bill corrected her once on some "misinformation" she gave a class about a relay for field day. Betty gave the following classes the correct information. Michele recommended that Betty avoid bouncing type exercises during warmup, and to be sure that the pupils cooled down after the longer track runs. Betty acted on these immediately.

Voice

After Betty taught the critical elements in Lesson 2 of Day 1 Bill advised her to "project her voice more", and he complimented her on doing so after Lesson 3. During the post-lesson conference in Week 3 Michele and Bill discussed with Betty alternatives to raising her voice to obtain the pupils' attention. Bill lowered his voice until he was barely audible. Betty adopted this technique in Week 5 and continued to use it throughout the remainder of the quarter with success.
Revision of each lesson

Among the tasks set for Betty for Weeks 1 and 2 was to "ask your (pupils) each day... what did you learn in gym today?" (emphasis in original). Bill reminded her of this task again in Week 3 after which she revised the subject matter of most lessons with the pupils as they lined up to leave the gymnasium. She usually included a comment about the pupils' behavior.

Develop a "Bag of Tricks"

"Bag of tricks" has previously been defined in the discussion of activities. The emphasis here is upon the development of a "bag of tricks" as a task. On the agenda for the second briefing session (given to the physical education student teachers during the first briefing session) Dr. Thomas specifically reminded them, as part of the unit plans, to "remember to have some emergency activities 'up your sleeve'." Throughout the quarter Bill reminded Betty that she needed to be able to draw on activities from her "bag of tricks". "Bag of tricks" was not listed on any of the written task sheets for Betty but was referred to by Bill often after Betty mentioned in Week 1 how valuable she found the periodicals for obtaining drills for softball:

Betty this is a good book, it has lots of drills
Bill the best drills are the ones you make up yourself, the ones you modify for your own kids. Always have a couple of extra drills in your bag of tricks.

Bill reminded Betty that she needed to be able to "pull something out of her bag of tricks related to what's being done" when lessons had to be changed for rain days. Bill was concerned
that when student teachers left Tiergarten they have a "bag of tricks". He expected them to draw on the materials he provided in demonstration lessons, and to use their own initiative. In Week 7 Betty asked Bill for some games because he had a "whole head full of them" but Bill indicated that she had to use her own ideas. She used one novel activity, Type-a-letter-to-Mom, with grade 2 but Bill doubted that Betty had a "bag of tricks".

Activity time-waiting time ratio

During the post-lesson conference in Week 4, Michele set as a task for Betty for Week 5 "to look at the ratio between activity time and waiting time" so that pupils were physically more active during lessons. The change in activities in Weeks 5 to 7 made it difficult to gauge Betty's success or otherwise on this task.

Waiting time activities

Michele also suggested that Betty should consider including some waiting time activities for the pupils while they were waiting their turn to bat at softball. Betty had previously encouraged the pupils to assist each other when they practiced shot put and javelin in pairs or groups of three. Betty did not include any such softball activities in Week 5. Michele reminded Betty again at the post-lesson conference in Week 6 but that was after the last softball lesson, and the reminder was more for Betty's future reference.
**Brief pupils for field days**

Field days were the culmination of the track and field unit for the intermediate grades. Competition was arranged on an individual and class basis. The field days were held at the high school track. Betty had two types of tasks in lessons. First, from Week 3 onwards she was to "talk about field day" to motivate the pupils to improve their individual performance. She did this when the pupils were running the 800 meters and 1500 meters by giving them the option to try to set a record, or to run at their own pace. Second, in Week 7, Bill provided Betty with a list of items about which she was to remind the pupils for field day. Betty attended to some items while the pupils were warming up in the gymnasium, and to the remainder as she revised "what did you learn in gym today?" Bill, however, was concerned that she did not carry the sheet of information with her.

**Organizational tasks**

A sample of the organizational tasks undertaken by Betty are presented in Table 12. They primarily involved Betty in the preparation of the equipment for classes.
### TABLE 12
Organizational Tasks

<table>
<thead>
<tr>
<th>Task</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set up and put away the equipment each day</td>
<td>Accomplished daily</td>
</tr>
<tr>
<td>Rearrange the bases for softball matches</td>
<td>Betty followed Bill's advice</td>
</tr>
<tr>
<td>Place cones at the carpark entrance when the track is being used</td>
<td>Completed daily after initial prompting from Bill</td>
</tr>
<tr>
<td>Remind pupils via the PA system not to move equipment at recess</td>
<td>Not attempted</td>
</tr>
<tr>
<td>Clear gymnasium when setting up each morning</td>
<td>Not acted upon</td>
</tr>
<tr>
<td>Dynatape records for track and field</td>
<td>Completed after prompting</td>
</tr>
<tr>
<td>Assist with equipment movement for tornado drill</td>
<td>Completed</td>
</tr>
<tr>
<td>Buy eggs for field day</td>
<td>Completed</td>
</tr>
<tr>
<td>Attend to milk jugs</td>
<td>Completed as needed</td>
</tr>
</tbody>
</table>

**Setting up and putting away the equipment**

Betty observed Bill set up the equipment for his classes on Days 1 and 2 of Week 1. Thereafter she automatically involved herself in this task each morning at Tiergarten, including a few occasions on Thursday and Friday mornings in Weeks 3 and 4 when she did not have classes, and she appeared confused about the schedule of classes for physical education. Bill urged Betty to use pupils to assist her but often she completed the task alone, with the
researcher sometimes being an observer participant. Betty did use pupils, "gym aides", in Week 7 when nine different activity stations were used. Bill occasionally provided suggestions, particularly on location, spacing, and the most suitable equipment for the primary grades but overall Betty had full responsibility for the equipment for her classes. She sometimes checked with Bill about specific items such as the best size balls to use with the primary grades, or whether or not to have a softball batting tee in Weeks 5 and 6.

Bill did, however, assist and prompt Betty more with specific items used at Tiergarten such as the cones at the entrance to the carpark, or the tripod with the track distances, and the dynataping of records to place on the bulletin board.

The collection of equipment at the end of Lesson 3 was incorporated into the transition of the class back to the gym with the exception of the measuring grids for shot put and javelin which Bill recommended Betty always put away herself. On one occasion after a post-lesson conference with Michele, Betty forgot the "grid". She came back to Tiergarten during her lunch hour when she remembered that she had not attended to the grid.

Overall, there was little feedback to Betty on her completion or noncompletion of equipment related tasks.

Interpersonal tasks

Betty undertook a considerable number of interpersonal tasks which fell into two broad groups: (a) completed in lessons, and termed "interacting" for this research; and (b) those completed
outside of lessons, and termed "communal". Table 13 includes examples of interacting tasks, while Table 14 has examples of communal tasks.

**TABLE 13**
Interpersonal Tasks: Interacting

<table>
<thead>
<tr>
<th>Task</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn pupil names</td>
<td>Partial accomplishment</td>
</tr>
<tr>
<td>Assist blood pressure clinic</td>
<td>One session, completed</td>
</tr>
<tr>
<td>Develop your own signal for attention</td>
<td>Not accomplished</td>
</tr>
<tr>
<td>Use time out</td>
<td>Attempted with increasing success in later weeks</td>
</tr>
<tr>
<td>Use &quot;homes&quot; to divide classes into teams</td>
<td>Partially successful</td>
</tr>
<tr>
<td>Use behavioral interactions</td>
<td>Variable success</td>
</tr>
<tr>
<td>Tell pupils your expectations</td>
<td>Partially successful</td>
</tr>
<tr>
<td>Talk with nonparticipants</td>
<td>Accomplished</td>
</tr>
<tr>
<td>&quot;Don't give anything away&quot;</td>
<td>Attempted with increasing success in later weeks</td>
</tr>
<tr>
<td>&quot;Stick up for your rights&quot;</td>
<td>Attempted with increasing success in later weeks</td>
</tr>
<tr>
<td>Transitions-Hustles (a combined organizational interpersonal task)</td>
<td>Attempted with varying success</td>
</tr>
</tbody>
</table>
### TABLE 14

Interpersonal Tasks: Communal

<table>
<thead>
<tr>
<th>Task</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduce yourself to as many staff as possible</td>
<td>Partially accomplished</td>
</tr>
<tr>
<td>Announce records over the PA system</td>
<td>Not attempted</td>
</tr>
<tr>
<td>Remind pupils to dress warmly</td>
<td>Completed immediately</td>
</tr>
<tr>
<td>Write welcome note to new girl</td>
<td>Completed immediately</td>
</tr>
<tr>
<td>Talk with policeman</td>
<td>Completed immediately</td>
</tr>
<tr>
<td>Talk with bus driver</td>
<td>Completed immediately</td>
</tr>
<tr>
<td>Advise teachers of schedule change in Week 6</td>
<td>Completed immediately</td>
</tr>
</tbody>
</table>
Learn names

Betty was required to learn the names of five pupils in each class in Week 1, and ten in Week 2. She was able to attend to this task in Week 1 because approximately half of the physical education lesson time was used by the school nurse to measure the pupils' blood pressure. On one occasion Betty operated one of the blood pressure screening stations. Details of both the learning of names, and assisting at the clinic have previously been discussed under activities. The dimensions of the name task (15 names per day in Week 1, 30 in Week 2) coupled with Betty's part-time attendance (that is, morning only at Tiergarten) probably contributed to her partial accomplishment of this task. Bill monitored her until the end of Week 2, and reminded her intermittently later to use names. Betty herself was conscious of the need to know the names, and expressed concern that she had found this to be particularly difficult with the primary grades. Throughout the quarter she continued to ask pupils their names. Using pupil names was a criterion for evaluation and feedback (see Appendix N).

Signal for attention

During the post-lesson 3 conference on Day 1, Bill discussed with Betty the need for her to develop a signal that was unique to her. He suggested folding her arms, or crossing her legs. Bill demonstrated some examples at varying stage during Week 1. In Lesson 3 on Friday Betty stood still with her arms crossed above her
head, then across her chest. The pupils continued to practice.

Bill took over:

Mr. Stanley hey, you guys, what's (Ms. Snow) doing right now?
Pupils she's waiting
Mr. Stanley who else does that?
Pupils you
Mr. Stanley what's that usually mean?
Pupils stop, be quiet
Mr. Stanley we are waiting for you guys to be quiet

When the pupils were quiet Betty then proceeded to demonstrate the sprint start. While the researcher observed Betty occasionally using nonverbal signals similar to those used by Bill to gain the attention of classes, the desired response was not forthcoming, and Betty resorted to yelling for the pupils to "Stop", or "Listen up" and often had to repeat herself several times. The basic problem appeared to be that Betty had not informed the pupils about her signals. In Week 7 Michele asked Betty if she (Betty) had a whistle which would be appropriate to use outdoors. Betty had one, but not with her. When briefing Betty for the adventure games for the intermediate grades in Weeks 9 and 10, Bill emphasized that Betty would need a whistle since the pupils would be spread over the entire school yard. It was not until the very last outdoor lesson that Betty sent a boy to the gymnasium to fetch a whistle for her. She briefly told the pupils how she would use it, but did not demonstrate. After the lesson she commented that she realized that she should have used the whistle more, and explained the use to the pupils. Overall, Betty did not develop a signal for attention that
was unique to her, and effective. Gaining the attention of each class was difficult for her.

**Time out**

The time out box and its accompanying egg-timer were located in the gymnasium immediately outside the physical education office. Bill pointed it out to Betty the first morning. She sent one boy to it in Lesson 3 of Week 2, and then wrote in her log to Bill that she felt hesitant about doing this. In later discussions she recognized that it had been an effective way of dealing with the boy. Bill reminded her to use it, or to improvise with a suitable location outside, throughout the quarter. Betty was inconsistent in her use of time out with the intermediate grades but developed consistency with the primary grades from Week 6 onwards.

**Division of class into teams**

In her assignment to Dr. Thomas Betty stated that the system of "homes" in the gymnasium was an established structure that she would continue to use. She used the "homes" for warmup and usually began to divide classes into teams by announcing how the pupils were to group according to the colors of their "homes". Her attempts were not particularly successful. Bill doubted that she fully understood the system. It also appeared that she did not appreciate the need to give clear locations for each color, or to insure that the colors did not have to cross each other's territory to assemble.
**Behavioral Interactions**

Betty first mentioned that she needed to work on behavioral interactions in her journal entry of Day 5. She considered it one of the harder "things" about teaching. In Week 2 Bill began to encourage her to use more, and in Week 3 set behavioral interactions as a task. Initially Betty indicated to the researcher that she was not sure what Bill meant but she used a golf counter to record Bill's interactions with a grade 2 class, and also those of the music teacher. Betty's success with behavioral interactions fluctuated over the quarter. In Week 4 she peaked with 30. In Week 6 as she was going through "the slump" Bill set 20 behavioral interactions, and 20 feedback statements for grade 5 Tuesday, but Betty failed to record either. Bill intermittently recorded behavioral interactions for her for the rest of the quarter, and on one occasion even passed a note to her as she was teaching to inform her of her progress. Michele remarked on an improvement in Week 7. Dr. Thomas was pleased when he recorded 18 positives to one negative in Week 9. In the final conference, Bill and Michele considered that Betty had improved but there were no permanent records maintained by Bill or Betty apart from that made by Dr. Thomas. Betty considered that she had made progress in this task as well, adding that at first she had felt "fake-y" (Betty's word) but towards the end of the experience found her positive statements to the pupils were coming more naturally.
Expectations for pupil behavior

This task originated as an example in the "management-related objectives" set by Dr. Thomas. Until Week 4, Betty worked with each class as a whole group, and had less need to set particular expectations for pupil behavior. In Week 5 she divided classes into two groups, one to run 800 meters, the other to play a modified softball game of Bat Four. Betty positioned herself with the runners to conduct the start of their race, and tell them their times, but she also was able to yell across to the softballers about 50 yards away. In Week 6, however, the classes worked in two groups on two softball diamonds which were about 200 yards apart. Betty jogged back and forth between the diamonds. The pupils played the games but tended to argue amongst themselves, and to take a considerable time to get started. Bill suggested that Betty be sure to tell the pupils how she expected them to behave when she was not at their diamond. Betty spoke to the pupil she placed in charge of each diamond but did not address the class as a whole.

"Don't give anything away"

Bill's basic philosophy was that of an applied behavior analyst (see Bill's Frame of Reference). On Day 1, Bill introduced his rule to Betty:

Bill I have a little rule. I never give anything away. I take advantage
Betty (laughed)
Bill I always look for the kid who has appropriate behavior
Betty right
Bill give them every chance. You feel kinda bad because there might be a couple of kids doing the very same thing.

Betty right
Bill but that's life.

During the lessons Betty observed Bill teach, he demonstrated his "rule" frequently, for example, by rewarding the pupil who was first to pay attention with first choice of the equipment. Bill suggested that Betty apply this rule by rewarding the pupils with opportunities to play basketball with her. Betty first began to use the rule in Week 4 when she rewarded a grade 2 pupil with first choice of the equipment. During Week 5 Betty allowed the intermediate grade pupils to have free time in the gymnasium without setting up the rule in advance, or explaining to the pupils why they were able to have free time. Bill revised the rule with her, and linked it to setting expectations for pupil behavior. From Week 6 onwards Betty used the rule with both grade levels.

Transitions-hustles

From Week 1 to Week 7 the lessons for the intermediate grades involved between three and five distinct activities (see Table 6). The pupils and teachers were involved in two types of transitions termed ordering in this dissertation. Minor ordering occurred when there was a change of location within an activity, for example, from watching Betty demonstrate the shot put in the gymnasium to moving outside to practice it. Major ordering occurred when there was a change between activities, for example, from shot put to Batting versus Throwing. The organizational task for Betty was to have the
pupils make the transition in the shortest possible time. This was accomplished by the interpersonal task of hustling, or verbally and nonverbally encouraging the pupils to move such as calling "Let's hustle" and running with them. Betty consistently hustled the pupils, although in Week 5 Michele considered Betty to be hassling rather than hustling. Bill set hustling as a task for Betty in Week 6. One technique which Bill used to have the pupils move quickly was to set a time limit and then count how long the pupils took to complete their move. If they were under the time limit, they were rewarded. Rarely were Bill's classes over the time limit. He also used counting as a means of quieting classes. If they went over the limit they spent an equivalent amount of time sitting quietly. Betty began to use the counting in Week 3 but during "the slump" Bill had to prompt her to use hustles, and counting. She often did not set a limit on the count, or she counted by halves. In Week 9 she began to make the time limit more explicit, but overall her transitions and hustling fluctuated throughout the quarter.

Michele referred to hustles and transitions in all post-lesson conferences. In Weeks 1 to 4 she praised Betty for hustling, but when Betty suffered "the slump" in Weeks 5 and 6, Michele prompted Betty to hustle the pupils and to reduce transition time.

To complete the communal interpersonal tasks Betty had to meet with people out of class time, for example, introducing herself to staff members at Tiergarten, or in some instances talk to people outside of the class during class time, for example, speaking to the policeman. The policeman drove into the carpark while Betty was
timing the pupils for the 1500 meter run. He spoke to her for about five minutes during which time she was able to call out the times to the pupils as they crossed the finish line. The policeman was concerned about a car driver who had been reported to be behaving suspiciously around the school. Betty had not seen either the car or the driver, nor had the researcher. Betty later discussed the incident with Bill. On another occasion a school bus driver, recognized Betty as the coach who had been on the bus the previous evening when some seats were slashed. The driver took Betty into the bus. Betty gave the stopwatches to the grade 6 boys who completed the timing of the run for their classmates.

Introduction to the staff was an ongoing task throughout the quarter. Betty met staff members when she used the photocopying facilities in the general office area, and at the field days. The other communal interpersonal tasks tended to be discrete in the sense that they occurred once only, and they were completed immediately. They also tended to arise spontaneously, such as Bill suggesting on a particularly cold Tuesday that Betty ask the class teacher for the Wednesday class to remind them to dress warmly.

Summary

Advice was given to Betty in the form of written and verbal goals and tasks. The latter term was used for consistency in this discussion. The tasks had their origins in the printed materials distributed by the College of Education, and were transmitted to Betty by Dr. Thomas, Michele and Bill who modified them for the
context at Tiergarten. There was considerable variation in the form in which the tasks were expressed varying from full sentences in the printed materials to keywords and phrases by Bill. Verbal explanations accompanied most written tasks, and further tasks arose during conversations that were not converted into written form.

There were two broad categories of tasks. The first category contained tasks for Betty as a student of the teaching-learning process, and were characterized by discreteness from each other in terms of time boundaries. Dr. Thomas monitored these tasks which Betty completed when required.

The first category of tasks such as briefings, and conferences while discrete in themselves, served as the distribution point for many of the second category tasks which were performed by Betty as a co-teacher. These tasks were characterized by their continuity throughout the quarter. While the tasks were generic across grade levels, the once weekly occurrence of physical education for the intermediate grades was a further limitation in the consistent implementation. The emphasis placed on the second category tasks varied throughout the quarter, as did Betty's success in attaining them. Changes in the focus of the physical education program, and interruptions such as absences and non-teaching days interrupted the continuity of task implementation and attainment.

Each task had its own form and dimensions making it difficult to equate them. Furthermore, the tasks were often linked together for implementation particularly the interpersonal ones, for example,
Betty was to refer to a pupil by name to give feedback on a hustle and transition.

The only obvious permanent record of the task implementation was the collection of B-ALT:PE data approximately weekly by Michele and irregularly by Bill. Betty was required to maintain a cumulative graph of this data (see Appendix Q). For the purposes of the research, Betty's success in implementing tasks was judged subjectively from comments by members of the triad, and tracing the development of the task through time matrices. Bill expressed concern about the presentation and monitoring of the tasks, or goals in his final interview:

I've thought about this a lot. . . not just this year but all years. . . if I had a recipe book. I've always thought about taking that wall right there and putting. . . (a) four by eight sheet bulletin board with ten columns for the ten weeks of the quarter and. . . similar to what I did here with goals each week, and could list. . . those goals and we could see (a) gradual pattern all the way through the quarter where I gradual pattern all the way through the quarter where I mean it's so obvious. I think lots of times. . . you get so bogged down in paperwork here that you lose track of where everything kind of fits together. If it was a lot more visual in terms of. . . she walks in, she says, "Well, oh, here I am (at) this little unit". . . It'll give some credibility to her 'cos she knows that we mean business. This is where we're going to be at the end of the quarter, and if you want a good recommendation, that's the level you have to achieve. . . It's so subjective now. . .

Overall, Bill commented in the final interview that he found that Betty only implemented advice when it made teaching easier for her. He did not consider there was much difference in Betty's teaching behaviors at the end of the ten weeks but she did use more
behavioral interactions, and she was aware that teaching was not as easy career.

Michele, in her final interview, stated that Betty had been responsive to advice. Betty had tried to implement feedback but she had not responded to the extent Michele and Bill had expected.

Influence of the Context on the Student Teacher

The subquestion answered in this section was:

7. what influence did the context have upon the student teacher and how was the context influenced by the student teacher?

Two levels of context influenced Betty as a student teacher, and were influenced by her: (a) the local context in which she taught physical education at Tiergarten; and (b) the broader context of the school district, especially the high school where Betty taught each afternoon, and coached the girls' freshmen softball team. There was a degree of reciprocity between and within the contexts which, in fact, were both local for Betty and Michele. The distinction existed for Bill, and the researcher who only interacted with Betty at Tiergarten. Information about the high school was supplied by Betty, Michele and Bill in interviews, conversations, and member checks.

For clarity the influence of Betty on the context will be discussed first followed by the influence of the context on Betty.
Influence of Betty on the Context

Local context

The very presence of a student teacher influences the classroom context. Betty had two avenues through which she could influence the physical education context at Tiergarten — as a student teacher, and as a college athlete.

First, Betty's influence as a student teacher was observed by the changes Bill and Michele registered in association with "the slump". From Day 1 through to the end of Week 4 Bill's and Michele's comments were very supportive of Betty. Michele described Betty during the Week 3 triad conference as "friendly and relaxed with the (pupils)". In Week 2 Bill commented that "she's a good teacher, and she gets better every time" but in Weeks 3 and 4 he remarked to the researcher that he thought Betty was "under pressure."

During "the slump" in Weeks 5 and 6, the context became more negative both in terms of Betty's interactions with the pupils, and in conferences with Bill. Michele stated during the triad conference in Week 5 that Betty "didn't seem as on top of it as last week", and that Betty seemed to be "hassled rather than hustling". Michele also sensed a change in Betty and commented, "I don't know if there was anything bothering you, if you didn't feel as comfortable with the lesson." This was also the time when Betty was attending the doctor for treatment of her headaches. Betty had told the doctor that "my fuse is just so short".

The effect of these changes was registered in the data Michele collected using B-ALT:PE Observation Schedule. There was a jump in the time devoted to management from two percent in Week 4 to 23 percent in Week 5. Betty's influence on the context during "the slump" was a general decrease in the amount of activity the pupils had in each lesson, and an increase in management, transition, and waiting times. A reversal trend was evident by Week 7 and Michele congratulated Betty on increasing the amount of time the grade 6 pupils had for field day practices. Comparing Lesson 3 Friday with Lesson 3 Monday, Michele commented:

I think the most significant thing (was) at 10:45 these kids went off to do their activities with 25 minutes of the lesson remaining where Monday they probably only had five or seven minutes.

Opinions differed between Betty and Bill as to how Betty related to the pupils. Betty considered, in her final interview, that she "related strongly to the kids" but she was aware that:

I would have to work more on expressing myself to the kids, breaking it down a little bit more because like (high school cooperating teacher) and (Bill) said, I know in my mind what I want to say, it's just a matter of conveying it to the kids

Overall, Bill did not think that Betty developed a strong relationship with the pupils at Tiergarten.

In a very specific aspect of the context Betty was particularly successful. Betty took a particular interest in some mildly disabled girls, and as a result two of them participated in physical education classes, and the field days, something which they had not done in the past. Bill acknowledged this readily.
The second avenue through which Betty had the potential to influence the context at Tiergarten was as a college basketball player. During Week 1 when Bill introduced Betty to classes, or was present when she introduced herself, he drew on her experiences as a college basketball player (see Betty's Frame of Reference). A small but persistent group of grade 5 boys were influenced by this. Throughout the first four weeks they frequently asked her to play basketball with them. She did so once with them, and twice with grade 6. Bill had mentioned to grade 5 Friday that Betty was able to perform the reverse slam dunk. Until the end of the quarter the grade 5 boys continued to ask her when she was going to perform it for them. She did not. Betty could not execute the reverse slam dunk, a point queried by the researcher since Betty was not particularly tall for a basketball player.

When Betty was alone with classes in the first two weeks, she simply told the pupils that she was a student teacher from The Midwestern University, and that she would be teaching them for the rest of the year.

Bill also encouraged Betty to use her basketball skill to establish class control. For example, after grade 6 on Tuesday of Week 2:

say you find one or two restless, okay. . . thanks for listening, after class you and I are going to play a little game of one on one at the baskets. You know how those kids go crazy after basketball. . . those boys would just die to play you one on one at basketball. . . so that's a little, major tool that you can use. . . stop the whole class a few minutes early. . . then let them sit and watch you play this guy one on one. You'll get him right in the palm of (your) hand.
Betty did not use this advice. She did acknowledge that playing basketball with the grade 6 boys did make it easier for the pupils to come up and talk to her (see Betty's Frame of Reference), Bill had prompted her to participate. Overall, it appeared that Betty did not want to use her basketball in anyway at Tiergarten, and that she was concerned with maintaining rather than changing the context, the outcomes of which will be discussed in answer to subquestion 8.

**Broad context**

Comments by Betty and Michele suggested that Betty did have an influence on the high school context, again, in terms of helping pupils experiencing difficulty in physical education become participants. Betty and Michele both recounted on incident at the high school in Week 1 during which Betty had taken aside a girl, Jean, who was misbehaving and spoken to her at some length. As a result Jean began to participate in physical education, and became the team manager for the girls' freshmen softball team coached by Betty. Later, Betty also reported that the high school teachers had complimented her for helping Jean so much. Jean also stopped Michele in a supermarket to talk to her.

Michele also reported that Betty had been successful at the high school in establishing high activity rates in lessons, especially archery, and in operating a system of behavior contracts with one class. Betty mentioned that she has gained the cooperation
of some of the boys in her class after she had defeated them at tennis. She had pondered about how she would have coped if she had not been a physically talented athlete.

In addition, Betty recruited members of her softball team to be her helpers for the grade 5 field day although she had written in her journal that she had been nervous about this because she was unsure about how they would perform, and she had wanted everything to function smoothly. The softball players had commented early on the field day about Betty's nervousness. She did note in her journal that the softball players "came through and did a nice job".

Betty's ability to have a long term influence on the school district was curtailed when she was unsuccessful with her application for a teaching position.

Influence of the Context on Betty

Local Context

Betty was influenced by the pupils, and staff at Tiergarten, and by her supervisors but as with other aspects of her student teaching the nature of the influence was patterned around "the slump".

Overall, she liked what she saw:

Reseacher: how obligated do you feel to do what (Bill) is doing all the time?
Betty: I feel what he does is good, I mean, how he conducts the class, how he keeps the...class' attention (inaudible) that's why I like to follow...I like what I see, and not just that I'm following him just to be following him, I mean I like his mannerisms and (how) things go (Informal interview, Week 2)
After Betty experienced problems in Week 3 with her lesson plan, Bill taught Lesson 1 on Monday. Similar problems arose in Weeks 6 and 7. After Bill had taught, Betty used the same format for her lessons. She noted in her journal that Bill had helped to organize her class, and she was appreciative of Bill's 17 years of teaching experience. When asked late in the quarter about her involvement in the primary field days, Betty told the researcher she did what she was told to do. It appeared that she had become compliant and passive. In her fourth member check Michele wrote that "Betty failed to take the initiative about alternative plans and strategies." In Michele's opinion Betty was not able to think about alternatives, or give detailed attention to lesson preparation because Betty's "busy schedule" did not allow her time for reflection.

Early in the quarter, Betty appeared to be more sensitive to the differences between the intermediate grade levels. She wrote in her journal (8 April) that she found grade 4 easier to teach than grade 6 who were "just wild", and that she was (9 April) "trying to adjust to the different activities in each class." However, Bill, in his final interview considered that Betty had treated all the intermediate pupils as if they were grade 6. Bill and Michele often prompted Betty to modify and change her lesson plans but she did not as was born out in the role-by-time matrices for each week.

Betty had some idiosyncratic terms to describe the pupils which suggested that they had influenced her. They were often "funny" which meant "they were acting different, a little weird", or that
"they crack me up" which meant that they were "joking me", or "wild"
which meant "not behaving. . .doing whatever they wanted" (Final
interview).

A task Bill set for Betty in Weeks 1 and 2 was to introduce
herself to as many staff as possible. She had interacted with them
mainly when she used the photocopying facilities in the general
office area, and at field days. In her final interview, she
commented that she thought the staff were very friendly, and
cohesive as group. When asked if she was to repeat her student
teaching, she replied that she would probably have spent more time
getting to know the teachers. She found herself to be "an outsider"
because she was not permanently at Tiergarten, not because of the
way the staff treated her. She always left the school as soon as
possible after her morning classes which limited her contact with
the staff.

Bill, Michele, and Dr. Thomas influenced Betty. She wrote in
her journal (31 March) of being apprehensive about meeting the
pupils but Bill was nice. She mentioned Bill in six journal entries
commenting on the help that he had given her to get organized. In
Week 5 she was "uptight because (Michele) was there. I don't know
why I've been reacting that way. I know I shouldn't and I need to
get my confidence back." When Dr. Thomas observed her in Week 9 she
wrote that she was "a little nervous with (Dr. Thomas) being there."

While Betty experienced frame clashes with Bill and Michele (to
be discussed later in this chapter) she considered the way in which
she was supervised to be satisfactory. During the final interview
Betty was asked to put herself in the position of a cooperating teacher and describe how she would teach a student teacher. She replied:

I think along the same lines as (Bill) and (high school cooperating teacher) handled me. . .little hints on how to decrease management time, except I don't have the experience right now to give. I was real comfortable in how they handled it.

And, if she was a university supervisor, Betty would help her student teachers:

in the same way. . .They're (student teachers) learning at the same time so you need to give them little hints, and they also need to learn for themselves.

However, just as Bill and Michele sensed changes in Betty prior to "the slump" she sensed a change in her relationship with them, especially with Michele. One outcome of this was that Betty did not discuss her health problems with Michele. In the final interview when Betty was asked if she had told Michele about her health problems Betty replied that she had made a couple of comments but she did not provide any details because "I didn't want to pursue it to create bad waves." Furthermore, Betty sensed that Bill would not recommend her for a job in the school district, and that Bill and Michele were disappointed with her student teaching performance but she was uncertain as to exactly what had been their expectations.

**Broad context**

In contrast to her elementary school teaching experience, Betty's reports of her high school experience suggested that she was far more at ease with the older pupils. For example:
I much prefer high school. If it came down to a position, an elementary position, yes, I would definitely go for it but I prefer high school...they're more self-managed...with the elementary you have to have everything planned. I mean, what the kids are going to be doing next whereas...you're teaching a tennis unit (at the high school)...tell the kids to get into groups of four...the high school kids can do it whereas the elementary you have to have a quick procedure so that you can get your kids in there.

In addition to finding the secondary pupils easier to manage, Betty also knew her secondary cooperating teacher prior to student teaching. The teacher had attended The Midwestern University women's basketball matches. Betty did discuss her relationship with Michele with Bill, but it appeared that she had spent more time in discussions with the high school cooperating teacher. Bill thought the high school teacher and Betty "had mutual admiration" for each other as sportswomen. Michele considered Bill to be more demanding of Betty and more analytical of her than the high school cooperating teacher who was "much more laissez faire".

Further evidence of Betty's preference for the secondary school was the promptness with which she left Tiergarten each day. During the primary field days in Week 10, she expressed concern when she thought that she might be late to the high school and not be able to join her high school cooperating teacher and classes for special end-of-year lunches at a nearby food market.

Summary

Betty undertook her student teaching in an elementary school and a high school in the same school district. For Betty, and Michele, both schools constituted their local context but for Bill,
and the researcher, the secondary school was the broader context with which they had indirect contact through Betty and Michele. The division between the two levels of context tended to be an artefact of the research context.

Betty, Bill, and Michele all suggested that Betty's experience differed between the two schools with her high school experience being the more positive one for her. Therefore, her influence on the context, and the influence of the context on her differed between the two schools, although in both schools she was able to encourage some special pupils to become more actively involved. The form of the influence fluctuated over the quarter in conjunction with "the slump".

At Tiergarten, Betty began very well but during Weeks 5 and 6 activity time decreased, while management time increased according to the data recorded by Michele on B-ALT:PE Observation Schedule. Bill attempted to have Betty use her expertise as a basketball player to influence the pupils at Tiergarten but Betty only did so with prompting from Bill.

**Outcomes of the Student Teaching Experience**

As described in the previous section Betty was influenced by, and had an influence upon, the context in which she undertook her student teaching experience. The next subquestion considered:

8. what were the outcomes of the student teacher maintaining or changing the context?
Generally, Betty appeared to work towards maintaining rather than changing the local context at Tiergarten. Her endeavors to maintain the context had two outcomes which were closely related to each other. First, Betty experienced "the slump" which was the summation of the major research question describing the changes in her teaching behaviors. Second, her relationships with Bill and Michele changed concurrently with the occurrence of "the slump". Each outcome will be described in this section.

"The Slump"

In his address to the student teachers at The Midwestern University who were about to embark on student teaching in spring quarter 1986, the coordinator from the College of Education stated that there were few guarantees he could make about student teaching. One guarantee he could make, though, was that some days were not going to go well. The student teachers would have to work out how to correct their problems either in the next lesson or the next day. The coordinator told the student teachers that the cooperating teacher would be looking to see how well student teacher could recover from adversity. The recovery depended upon the student teacher. Weeks 5 and 6, and Monday of Week 7 did not go well for Betty. Four aspects of "the slump" will be considered: (a) B-ALT:PE observation data; (b) descriptive data; (c) events in the broader context; and (d) the reactions of Betty, Bill, and Michele.
The B-ALT:PE Observation Schedule (see Appendix B) was a modified form of coding academic learning time in physical education developed by Dr. Thomas, and a graduate student at The Midwestern University. It was an interval recording system in which the supervisor observed one pupil in a student teacher's class for five seconds, and then recorded the observation in the following five seconds according to the six categories called Key Behaviors — management (M), knowledge (K), transition (T), activity (A), waiting (W), and off-task (OT). Thus there were six observations and recordings each minute. At the completion of the lesson the supervisor summed the number of seconds in each category, and calculated the percentage of time distributed across the six categories.

Michele held eight conferences with Betty. Five of the conferences were based on data Michele collected using B-ALT:PE Observation Schedule. Dr. Thomas observed and coded Betty once with the same system. Bill used it several times but only one copy was retained in Betty's file. Table 15 below displays the time distribution by percentage for the lessons coded by Michele and Dr. Thomas, and the length of the lesson in minutes. The percentages were calculated by Michele, and Betty (Week 9).
### TABLE 15

**B-ALT:PE Observation Data, and Length of Lessons**

<table>
<thead>
<tr>
<th>Week</th>
<th>K</th>
<th>M</th>
<th>OT</th>
<th>A</th>
<th>T</th>
<th>W</th>
<th>Total Percent</th>
<th>Time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>17</td>
<td>21</td>
<td>2</td>
<td>16</td>
<td>12.5</td>
<td>31.5</td>
<td>100</td>
<td>42</td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>2</td>
<td>0</td>
<td>32</td>
<td>13.5</td>
<td>30</td>
<td>100.5</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>8</td>
<td>23</td>
<td>0</td>
<td>20</td>
<td>19</td>
<td>28</td>
<td>98</td>
<td>36.33</td>
</tr>
<tr>
<td>a7.1</td>
<td>12</td>
<td>17</td>
<td>0.6</td>
<td>15</td>
<td>45</td>
<td>9</td>
<td>98.6</td>
<td>54.17</td>
</tr>
<tr>
<td>b7.5</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>30</td>
<td>43</td>
<td>15</td>
<td>103</td>
<td>29.33</td>
</tr>
<tr>
<td>c7</td>
<td>11</td>
<td>2</td>
<td>0</td>
<td>34</td>
<td>50</td>
<td>2</td>
<td>98</td>
<td>23.5</td>
</tr>
</tbody>
</table>

**Note:** Key Behaviors: K = knowledge; M = management; OT = off-task; A = activity; T = transition; W = waiting

a7.1 was Monday of Week 7.
b7.5 was Friday of Week 7.
c7 was recorded by Dr. Thomas.

The lowest point of "the slump" occurred in Weeks 5 and 6 and included Monday of Week 7 (7.1 in Table 15). Michele specifically referred to the increased management time from two percent in Week 4 to 23 percent in Week 5, and on Monday of Week 7 to the total management (17 percent), transition (45 percent), and waiting (9 percent) which was approximately 70 percent (71 percent). In addition, Table 15 showed a decrease in activity time from 32 percent in Week 4 to 20 percent in Week 5, and an increase from 15 percent on Monday of Week 7 to 30 percent on Friday of Week 7. Care should be taken in interpreting the B-ALT:PE data, however, because the lesson content was different for Weeks 3, 4, 5, and 7; and different
grade 6 classes were observed on Monday and Friday of Week 7. Dr. Thomas observed a kindergarten class in Week 9. Betty had not taught this class previously (see also Appendix Q for the Cumulative Observation Graph for Student Teaching).

One further set of data, behavioral interactions, was also indicative of "the slump". During Lesson 1 on Tuesday of Week 4 Betty recorded 30 positive behavioral interactions. In Week 6 she failed to record any at all when Bill set a target of 20 behavioral interactions, and 20 feedback statements in Lesson 1 Wednesday.

**Descriptive data**

Betty began teaching critical elements in Bill's lessons on her first day of student teaching, and on Friday of Week 1, she taught her first solo lesson, although Bill did assist her gain the attention of the pupils at one stage. During the post-lesson conference Michele commented: "Your manner is relaxed and friendly. You don't look at all tight or tense", and suggested that she (Michele) and Bill would be able to go out to lunch while Betty taught the classes. Bill added that "You're going to be great."

While Bill and Michele gave Betty advice on how she might improve her teaching their statements during the post-lesson conferences continued in this positive manner until the end of Week 4 when Michele said, "You're going nicely. You're concerned with your instructional environment rather than just how am I going to keep these kids under control."
However, from Week 3 Betty had experienced a number of adversities both at Tiergarten, and in the broader context. During Week 5 her teaching suffered. In her journal Wednesday of Week 5 Betty wrote:

The class on Tues(day) was also a very bad day for me. I was depressed because I did not feel that the job I was doing was adequate according to some other's standards. Today was a little better but not much. I need to get my confidence up.

Bill considered that Betty had taken a "nosedive", and had "sloughed off a bit". Bill drew a peak followed by a deep trough with his hand in the air to nonverbally describe Betty's performance at this stage as depicted in Figure 8.
Bill's hand movement in the air to describe "the slump"

peaks and troughs in the teaching performance of the student teacher according to comments from members of the triad.

Figure 8 A schematic representation of changes in the teaching behaviors of the student teacher.
The post-lesson conference Friday was in marked contrast to its predecessors. Its tone was judged by the researcher to be negative. Michele stated that she:

didn't find this lesson was as good as last weeks'. . . as a general comment, and this is kind of subjective, to me you appeared to be a little. . . rattled. Last week you hustled, and you were fairly positive, and you knew what you were going to do. Today you just seemed that you were hassled rather than hustling. I don't know if there was anything bothering you, if you didn't feel comfortable with the lesson, or you were concerned with having two groups going, and (had) to manage both of them. You didn't seem as on top of things as you did last week.

Michele then compared the data she had collected with B-ALT:PE Observation Schedule between Weeks 4 and 5 (see Table 15). She recommended that Betty "go back a step" from even Week 4, and in particular that Betty spend time with Bill discussing each lesson before teaching it paying special attention to the instructions Betty would give to the pupils, and how she would allocate time to each activity.

Betty was absent Monday of Week 6, and Bill took over and taught the second lesson Tuesday to help her get organized. Michele did not visit Betty in Week 6, but made two visits in Week 7.

On Monday of Week 7 Michele observed Lesson 3 with grade 6. This lesson was a difficult one for Betty. Michele acknowledged that the pupils were "terrible, they really misbehaved". Unfortunately Betty attempted to gain control by making general disciplinary threats to the whole class rather than specifically dealing with the offenders. Michele noted that when Betty aimed her discipline measures at two offenders in the closing minute of the
lesson she had much better control. During the post-lesson conference Michele arranged to video Lesson 3 on Friday when Betty would teach the same content to another grade 6 class.

After the lesson on Friday Michele said:
you had at least a fifteen minute reduction in transition time in the lesson. That's...in one week it's fantastic. It's really excellent. You should be pleased with yourself.

Michele volunteered to code the videotape, and give it and the B-ALT:PE data to Betty so that Betty could view the videotape, and use the data to write a short comparison of the two Week 7 lessons. Michele gave the materials to Betty at the grades 3 and 4 field day at the high school track on Monday of Week 8. They discussed it on Friday of Week 9. Betty did not view the video but she did write a half page comparison of the lessons. She noted the substantial reduction in management time:

Instead of speaking generally to the class, I picked out the ones who were actually talking. This I believe was the biggest decrease in management/transition and an increase in activity.

Further recovery for Betty was hampered beyond Week 7. Three days of Week 8 were devoted entirely to the intermediate field days. Betty spent the other two days at her high school. Only five more regular teaching days, or six intermediate grade lessons, and seven primary grade lessons, remained for the year.

Monday of Week 9 was a public holiday. On Tuesday of Week 9 Betty "crashed" again. It was a cold wet day and she was forced to teach in the gymnasium but was not able to use the full gymnasium because the stage was set up. The rain day lesson she had planned
was unsuitable for the available space, and was far too brief for Bill. After a tense discussion Betty rewrote her lesson plan using cooperative games activities she had experienced at The Midwestern University. The conduct of the games in Lesson 1 was not satisfactory for Bill, particularly the safety aspects. Bill took over and partially taught one activity, and before Lesson 2 extensively revised the organization and safety of the lessons.

In the remainder of Week 9 Betty played adventure games with the intermediate grades, and ball skills with the primary grades. Grade 6 Friday went on a bicycle excursion.

The primary grade field days were held on Monday and Tuesday of Week 10. Betty taught grade 4, and two grade 2 classes on Wednesday. There were no specialist classes on Thursday. Betty spent the morning at the high school, and joined the specialist staff from Tiergarten for lunch.

Michele did not observe Betty teach after Week 7. She visited her briefly at the field day on Monday of Week 8. A conference was held on Friday of Week 9 during which Michele reviewed the week's lessons, and the Week 7 data. Michele gave Betty a copy of the guidelines which would be used in the final conference which was held on Wednesday of Week 10 (see Appendix N). Dr. Thomas observed Betty teach on Friday of Week 9, and Michele also discussed his data with Betty during the conference on the same day.

The researcher observed one further pattern during the analysis of the fieldnotes. Betty's performance from Week 3 onwards was a series of waves whereby she had difficulty with the first lesson
each week and required Bill's assistance either in a conference, or a demonstration lesson, after which she built up to a much better performance later in the week only to drop low again on Monday (see Figure 8). This pattern concurs with the times when Betty was a passive observer and observer participant (see Table 5).

Weeks 5, 6, and 7 were the most demanding for Betty at Tiergarten when she assumed a full teaching load. The intermediate grade lessons included three or four activities and major transitions. For example, during Week 6 the classes warmed up in the gymnasium then left via the eastern door to run to the softball diamonds on the western side of the school building about 150 yards away. After 15 to 20 minutes of softball, they then returned to the carpark running track on the eastern side of the school to run the 1500 meters, and then went back into the gymnasium.

Tuesday of Week 5 had its own set of problems for Betty. In Lesson 1 a grade 4 boy clipped himself on the side of his head with a javelin. The javelin was made of PVC piping so did not inflict a serious injury but the boy lay in a coma position for about five minutes during which time Betty tended to him. Eventually Bill carried him into the school nurse. Apparently the boy had been absent with dizzy spells for the preceding four days. Betty had to rearrange the sequence of activities in the lesson to insure that the pupils completed their run for their Five Star award. Betty appeared to be unsettled and ill-at-ease for the remainder of the day. During Lesson 2, she was interrupted by a policeman inquiring about a car and driver who had been reported the be behaving
suspiciously around the school. This was the day Betty wrote in her journal was "very bad for me".

Week 6 was also problematic. Betty was absent on Monday. She told the researcher that she had suffered a severe headache. Bill reported that mid-morning she had dropped her high school unit plan off to Michele. There were no physical education classes at Tiergarten because the gymnasium was being used for a drama production which classes were attending at various times thus disrupting the normal schedule. Just as she was about to teach Lesson 3 on Wednesday Betty asked Bill if she could leave promptly at the end because she had a doctor's appointment at 11:30 a.m. Friday she attended the doctor to have blood tests taken. Also on Friday during Lesson 3 the driver of a school bus recognized her as the coach who had been with a team on the bus Thursday evening. A seat in the bus had been slashed. While the grade 6 pupils completed their 1500 meter run, Betty examined the seat with the bus driver.

At the end of Week 6 Betty wrote in her journal:

The kindergarteners were a trip today. Actually, it is tough to teach them. Also, this week went a lot better. I'm regaining my confidence again. It is hard to get back onto your feet after you have fallen but it was a challenge -- I won't fail!

Events in the broad context

Prior to and during "the slump" events in the broad context impacted upon Betty. Betty's teaching responsibilities increased in both schools in Week 5. Michele wrote in her member check that up
to this point Betty had minimal responsibilities at the high school. Michele considered this to be a major issue in "the slump". Suddenly Betty was faced with the maximum amount of preparation and minimal time in which to do it.

The change in Betty's relationship with Michele also occurred at this time. This coincided with the sexual abuse case in the school district which Betty thought considerably affected Michele. However, Michele considered that the change was associated with Betty's inability to submit her high school unit plans to Michele three days in advance of when they were to be taught. Betty supplied the block plan of weekly activities but not the entire plan. She knew the plans were required in advance but did not recollect the three day time limit. During the weekend between Weeks 4 and 5 Betty had to contact Michele about the plans, and worked through till 1:30 a.m. Monday to finish them.

In Week 4 Michele left a note for Betty on a unit plan, that Michele and Bill considered that Betty had too much time between her two schools and that she should report to the high school earlier each day. Betty in her final interview stated that she did not understand why since Bill had originally told her, and Michele, during the Week 1 post-lesson conference that Betty should have a full hour for lunch to adjust between the different schools. Betty had been using her lunch time to do her planning, and preparation of handouts for her high school classes. Michele told the researcher that she thought Betty was running errands which she could not fit in to any other time in the day.
In Week 3 she had to begin her Basic Education Requirement classes (see Frame of Reference). These were held twice weekly in the evenings from 7:00 to 9:30 p.m. Mid-term tests were held in Weeks 4 and 7.

The weekend between Weeks 3 and 4, Betty's boyfriend broke off their relationship. They had been making wedding plans.

Reactions to "the slump"

Betty's reactions were clear in her journal as she wrote about the changes in her confidence and her determination to get back on top (see previous example from the end of Week 6).

Bill placed far more emphasis on seeing her lesson plans each day and checking them. It is difficult for the researcher to comment on the plans since Betty frequently changed them after her discussions with Bill and only the revised edition was available for photocopying by the researcher. Subjectively, the researcher did not consider that there was any more detail in the plans from Week 5 onwards than there had been previously.

In Weeks 9 and 10 Bill left Betty alone with the classes. He checked on safety but otherwise allowed Betty to teach according to her own plans.

Michele responded to "the slump" by videotaping one of Betty's lessons. Michele thought that being able to see herself teach would help Betty learn to modify her lessons during the week. It was unfortunate that only one lesson was videotaped and not both during Week 7 to make the comparison more realistic. While Michele
indicated that she wanted Betty to compare the two sets of data her initial comments to Betty were to watch the video at her leisure. There was no discussion of access to a video player. When asked in the final interview, Michele had assumed Betty would use one at either of her schools if she did not have one at home. Michele considered that Betty should have taken the initiative to gain access to a video player. Betty did not have one at home.

In summary, Betty experienced "the slump" during Weeks 5 and 6 including Monday of Week 7. The B-ALT:PE data showed a higher percentage of time in management, and less activity for the pupils. The descriptive data included each member of the triad's subjective description of the event. Events occurring in the broad context particularly the increase in Betty's teaching responsibilities at each school made this a traumatic period in Betty's life. Each member of the triad tried to help Betty recover with varying degrees of success.

Thus, in answer to the major research question the overall changes in Betty's teaching behaviors were described in "the slump" which were depicted as a peak to Week 4, followed by a trough in Weeks 5 and 6 then a slow recovery. Within "the slump" were a series of weekly waves describing how Betty experienced difficulties at the beginning of each week and required assistance from Bill after which she recovered towards the end of the week.
Changed relationships

The changes in the relationships between Betty, Bill and Michele were determined by examining their frames of references for aspects on which they agreed, frame sharing, and aspects on which they differed, frame clash.

Frame of reference was a heuristic device adapted from Weade and Green (1985). The frame for each member of the triad was composed of a curricular and pedagogical domain, and a personal domain. The components within each domain were identified using Spradley's (1980) domain and taxonomic analyses.

Frame sharing

Betty, Bill, and Michele had similar components within their frames in both the curricular and pedagogical domain (student/teacher, coach, job hunter/employee), and personal domain (athlete, family member, social life) which was natural for people who had chosen their careers in the same profession, namely teaching physical education. They tacitly shared an orientation towards physical exercise and sports.

Curricular and pedagogical domain

Betty, Bill, and Michele came together through their common association with The Midwestern University, not just as members of the triad, but as current and former students and faculty. Each had been strongly influenced by the physical education teacher education program of The Midwestern University. Betty, as the current undergraduate student of teaching, lacked the experiences of either
Bill or Michele. She understood the importance of their experience. In Week 6, Bill took over Lesson 2. As Betty walked out to the softball diamonds to observe Bill teach grade 5 she remarked:

Betty: it's amazing what experience will do
Researcher: yeah
Betty: you know 'cos you can pass (it) around in your mind, what you think might work or it might not work, but until you actually do it or experience it, I mean you're not really going to know that
Researcher: ...in some respects it's exactly the same message he's trying to give about the skills, the kids have got to see batting to know what batting is like. You've got to see how the group is organized.
Betty: right
Researcher: to be the organizer
Betty: right, right

Bill empathized with Betty by recalling anecdotes about his first experiences teaching elementary school pupils, as did Michele.

Betty was the only member of the triad currently active as a coach but again Bill and Michele were able to draw on anecdotes from their past experiences, Bill as coach of football, tennis, and basketball, and Michele as basketball coach.

The potential for the triad to share their curricular and pedagogical domain was intensified by Betty's decision prior to student teaching to seek a teaching-coaching position in the same school district as Tiergarten. Bill, as an established employee of the school district, took a particular interest in Betty as a potential professional colleague. Michele was interested because of her association with student teachers and Tiergarten over several years, and because she resided in the school district.
Personal domain

Michele and Bill both commented favorably on Betty's prowess as an athlete. They considered that she was particularly fortunate because she was able to demonstrate competently when introducing physical activities to her pupils, although she did not always do so.

During spring quarter Betty, Bill, and Michele were active participants in co-recreational softball but only Bill and Michele were members of the same team. Occasionally, on Monday morning or during Michele's supervisory visits they exchanged information about the performances of their teams.

Betty's principal sport was basketball from which she had just retired as a College player. Michele had been a spectator at matches in which Betty had played. Bill drew on Betty's experience as a basketball player when he introduced her to the pupils, and recommended strategies for gaining class control using basketball matches with her as a reward for pupils who were cooperative.

Frame clash

Over the quarter of student teaching as Betty, Bill, and Michele learned more about each other, and "the slump" occurred, their relationship changed. They maintained the same components in each domain but they each placed their own individual emphasis on different components.
Curricular and pedagogical domain

At the beginning of spring quarter Betty had student teaching and an incomplete course from winter quarter remaining to complete her undergraduate degree, and gain certification to teach physical education. Two weeks into the quarter Betty was informed that a mistake had been made in the calculation of the requirements for her to graduate. With permission from Dr. Thomas and Michele, Betty enrolled in a level two five credit hour Basic Education Requirement course. The class met two evenings per week from 7:00 to 9:30 p.m. On reflection during the final interview Michele stated that she felt that the extra course adversely affected Betty's development. Michele would consider such requests from future student teachers more closely. Michele was not concerned with the course per se but that it was in addition to everything else Betty had in her "busy schedule". Later, during the member checks, Michele indicated that she had been unaware of the extent of Betty's commitments in co-recreational softball. Michele considered this to be among the reasons why Betty was unable to devote sufficient time to preparation of her unit and lesson plans.

Betty decided that a "busy schedule" combining teaching and coaching during her student teaching would give her a more realistic experience of what she could expect upon graduation. During the first interview she explained to the researcher that she intended to approach student teaching "like a job". The prospect was exciting to her. Michele remarked to Bill in Week 1 prior to her first observation of Betty teaching that Betty was:
used to a busy schedule, fitting a lot in, and she doesn't seem rattled by that. She seems like she can organize her time.

When Betty added the BER course to her busy schedule in Week 3, Michele took the precaution of counseling Betty on the need to re-examine her priorities especially since Betty had yet to be given her full teaching load in both schools. Michele acknowledged that Betty had the right to determine her own priorities, but did give several suggestions on how Betty could organize softball coaching sessions to reduce the time commitment. During "the slump" Betty did end training sessions earlier but otherwise appeared to continue in the same format until softball was completed in Week 8.

In their final interviews Bill and Michele respectively described Betty as a person "who sticks to her guns", and "insists on being on top". Betty in an informal discussion with the researcher in Week 2 admitted that she was "stubborn and hard-headed". Student teaching and her "busy schedule" were challenges to be met by Betty. She did, however, seek reassurance from Bill and Michele about her teaching, and asked them if they thought that "the lesson went okay" (for example, grade 4, Lesson 1, Week 7).

Michele emphasized to Betty that student teaching was not "normal" teaching because the student teacher had the extra pressure of evaluation by supervisors. Student teachers needed to be thoroughly prepared. They could not afford to "wing it". Betty admitted to feeling anxious when she was observed by Michele and Dr. Thomas.
Betty's preparation was the point of dissension between Betty and Michele with unit plans, and Betty and Bill for lesson plans. Betty completed her unit plan for softball, and track and field at Tiergarten in Week 2. Bill said it was "fine". When Michele discussed it during conferences in Weeks 3 and 10, Michele found that the plan gave inadequate attention to the needs assessment of the pupils, the task analysis, and resource utilization. Throughout the quarter Michele and Betty appeared to the researcher to differ on their understanding of the requirements for the unit plans for the high school. The plans Betty submitted to Michele were late and/or incomplete according to Michele's standards. Betty claimed not to have known the due dates until the time of the first disagreement which coincided with "the slump" and with the sexual abuse case in the school district, and the three factors became intertwined in Betty's recognition of a change in Michele's attitude towards her. When asked in the final interview to describe her relationships with Bill and Michele, Betty replied:

I felt that they were okay. ...they were very helpful so it was okay. You know, there was a time when I wasn't real sure about things and I still question as to why I wasn't real sure. I didn't know if it was something I was doing, or if it was something outside. ...if it was things that (Michele) was going through or not. You know, I didn't know but I was just getting a real bad feeling about it. ...I didn't know if it was something I was doing on my side, or you know things were going on in her life or what but I wasn't real sure. ...it was about...the fifth sixth week, it was about a two week span there. ...I wasn't feeling well myself, and at the time I was real committed so I didn't have a lot of free time but you know I still wonder why. ...after that things were okay. ...maybe it was a combination of she was busy, I was busy
Bill was concerned about Betty as a student teacher because she did not get involved with the pupils, for example, by playing basketball with them at recess. Betty did what was required of her but did not appear to Bill to be as excited as he was about teaching. When Betty was alone to introduce herself to classes she did not refer to basketball, she simply told the classes that she was a student teacher from The Midwestern University who would be teaching them for the rest of the year. The researcher was unaware of Bill asking Betty how she would like to be introduced to the pupils, or if she wished to have reference made to her status as a college athlete.

Furthermore, it appeared that Betty preferred teaching high school pupils rather than elementary. She left Tiergarten promptly each day, and during Weeks 9 and 10 became concerned that she might be late to go to lunch with her high school cooperating teacher and pupils. Betty was more at ease with her high school cooperating teacher than with Bill. Michele did not think that the high school teacher held Betty as accountable as did Bill.

Like Michele, Bill was concerned with Betty's preparation, especially the lack of detail in her lesson plans. Betty argued that she was prepared, that she knew what she was going to do. Bill needed more details written on the plans so he could help her. When Betty was experiencing problems with her boyfriend, Bill commented to the researcher that she was probably spending a lot of time on the telephone rather than writing lessons. In her final interview
Betty said that she was trying to train her mind but realized that little (palm) cards may have been useful.

Bill's perception of Betty's lack of response to feedback on her lesson plans, and other aspects of her teaching aggravated Bill. In the final interview Michele stated that Betty had been responsive to advice, particularly in the last weeks, but not to the extent that Michele and Bill had anticipated. Betty in her final interview queried with the researcher, what exactly Bill and Michele expected of her, and perceived that much was left unsaid at the final post-lesson conference in Week 10.

Another aspect of the curricular and pedagogical domain on which Betty and Bill differed was coaching. Monday of Week 2, Betty asked Bill if she could be excused from Tiergarten on Monday of Week 3 to attend a coach's clinic in the school district. Bill refused to allow her to go because Week 3 Betty was to start the softball unit, and she still had a lot to learn in the classroom. Week 3 Betty got off to a bad start with an incomplete lesson plan. In the conference with Bill about the plan, Betty mentioned that she had had a busy weekend coaching. Bill retorted:

that's what happens when you get into coaching. You've got to put your priorities where they fall and you're a teacher first.

Generally, Bill considered that Betty would find employment as a coach based on her reputation as a College basketball player. He doubted if she would be offered a job in the school district. During "the slump" Bill tried to motivate Betty by emphasizing to her that she had to demonstrate to him that she was a teacher who
belonged in the school district. Betty realized after "the slump" that the possibilities of Bill giving her the necessary recommendation were remote.

In addition, Bill and Michele drew comparisons between Betty and other student teachers they had, or with whom they were currently working. Bill referred to the physical education teacher for whom he was a mentor as his "shining star" (see Bill's Frame of Reference). She had been a student teacher with Bill about 18 months before Betty. Michele commented to the researcher in the final interview that it was unfortunate for Betty that the other student teacher Michele was supervising at the same time was one of the best with whom Michele had worked.

During the post-lesson conference in Week 9 Betty referred to her health problem, and in the final conference in Week 10 elaborated upon her doctor's visit when "the slump" was mentioned. Betty told Bill and Michele that the doctor had indicated that Betty's "short fuse" and problems with class management were typical of a person who was not well. At no time did Betty describe the nature of her health problem, or tests to Bill or Michele. They were aware of her visits to the doctor but assumed that they were for basketball injuries, and not associated with the concussion Betty incurred at the end of her career. They did not think Betty was unduly concerned about her health. Michele responded to Betty's tendering of the limited information in the post-lesson conference by reminding Betty that she had tried to caution her against overloading her busy schedule, and not leaving any leeway for
unexpected events or illness. During the final interview Betty spent some time explaining to the researcher that she was just beginning to realize that she was "burned out" not just from student teaching but from the pressures of four years as a college athlete, and a total of 12 years of intensive basketball.

To the researcher it appeared that the underlying issue in the frame clash between members of the triad was their inability to clearly communicate to each other at all times. Betty appeared to have difficulty at times selecting the words to express herself. As she grappled she would say, "I know what I want to say, I can't find the words." Nor, did she always provide complete details, or follow up on partial explanations. Several incidents, in addition to "the slump" were observed by the researcher in which Betty did not communicate complete details. For example, when she was absent, Betty did not give any reasons, and in Week 6 had dropped her high school unit plan off to Michele, the morning she did not attend Tiergarten. In Week 9, she told the researcher that she had left her kindergarten lesson plan at home because she had been busy packing the materials for her high school classes, and had remembered that she had to stop for gas for her car. As soon as she arrived at Tiergarten she began to rewrite the plan without explaining the circumstances to Bill. The researcher wrote in her Interpretive Notes that "Bill had a black look". Dr. Thomas arrived shortly afterwards. When he asked Betty if she was preparing lesson for the following week, she told him that she was just making some
last minute adjustments. It appeared to the researcher that Betty felt no need for explanations about such events.

On other occasions it appeared that she did not fully understand Bill's suggestions, for example, until he had taught a demonstration lesson for her.

Several times the researcher and Betty sought clarification from each other of Bill's explanations, especially about the organization of the field days. The researcher referred Betty back to Bill, and when Betty was not present sought clarification for herself from Bill.

While Betty and Bill shared an office, there was very few occasions when the researcher was present on which they spoke about non-school matters, such as softball. On the very first morning Bill immediately introduced the task list and this appeared to the researcher to establish a business-like relationship between them. Bill sought a few details from Betty about their previous experiences, or interests.

Betty, Bill and Michele were in close contact with each other during the ten week student teaching experience. Their interest in physical activity and sport provided the bases on which they could share aspects of their frames of reference. During the ten weeks, though, each placed different emphasis on different aspects of their frame, and they experienced frame clashes which were not always overtly discussed.
The researcher obtained isolated details about Betty's health problems between Weeks 3 and 8. Twice Betty told the researcher that she had a "headache from yelling at the kids" as they walked back to the gymnasium after Betty had taught on the playing fields. In Week 6 Betty volunteered information to the researcher about her absences, health problems, and medical tests. The researcher asked Betty if she intended to inform Bill and/or Michele. Betty did not think so. When Betty experienced "the slump" the researcher contemplated mentioning Betty's health problems to Bill and Michele but did not do so because that would have been a breach of confidence.

The researcher also believed that Betty wanted to handle the problem in her own way. The researcher, with considerable experience as a university supervisor, also judged that despite "the slump" Betty would be graded satisfactorily for student teaching, although her chances of obtaining a recommendation for a job in the school district were in jeopardy.

The researcher continued to prompt Betty about her health for the remainder of the quarter. After Betty had mentioned her health problems in the conferences in Weeks 9 and 10 the researcher asked Bill and Michele about Betty's health. Neither knew about her headaches. Michele was aware that Betty had visited a doctor but had assumed that it had been about her knee injuries. Michele had not pursued details with Betty but informed the researcher on two occasions that Betty appeared embarrassed to her when Betty's
softball players asked why she had been late for training on one occasion. Betty had briefly replied to the softball players that she had visited a doctor.

The researcher's presence may have been an influence on the communication between the members of the triad. Bill and Michele each stated in their interviews that they probably would have been more demanding of Betty if the researcher had not been present. Each of them did have opportunities when the researcher was not present to hold conferences with Betty. The researcher did not attend Tiergarten on two Thursdays, on one she came just for Lesson 3 after she had completed a supervisory visit to her own student teacher in another school district, and because she wanted Betty and Bill to have time without her. Michele and Betty conferred frequently at the high school.

The researcher was, however, in a position to ask Betty more questions. Initially many questions arose because the researcher, who was not an American, did not fully understand the College sports system. Through such questions the researcher gained Betty's confidence which may have been why Betty shared information to her and not to the other people. Bill thought that Betty considered the researcher a friend to whom Betty was closer than she was to him. Also, the researcher was not involved in the evaluation of Betty's teaching performance.

Furthermore, Michele's member checks provided information about discussions between Betty and Michele at the high school which indicated that discussions about unit plans had taken place there,
and there was a void in the researcher's knowledge of these exchanges.

**Summary**

The changes in the teaching behaviors of a physical education student teacher were studied in an elementary school over the course of a ten week student teaching experience in an observation case study.

The student teacher was supervised by a cooperating teacher and a university supervisor, and together they formed a triad. A frame of reference describing the curricular and pedagogical, and personal domains of each member of the triad was constructed, and together with a description of the local and broad context served as background to answering the subquestions of the research question.

The student teacher was both a student of the teaching-learning process, and a co-teacher. As a student she attended briefing sessions, and conferences, and observed classes as a passive observer and as an observer participant. As a co-teacher her teaching duties were increased gradually from the teaching of one critical element in Lesson 2 of Week 1 to a complete lesson by the end of the same week. During the course of the ten week experience her cooperating teacher guided her learning through proactive, interactive, and reactive behaviors. Advice was given to the student teacher in the form of written and verbal tasks by both the cooperating teacher and university supervisor. The implementation of this advice fluctuated according to the physical education
program of the school, and the occurrence of "the slump" during which the teaching behaviors of the student teacher were affected by events in the local and broad context. Overall the student teacher attempted to maintain the local context and did not draw on her special expertise in basketball to construct her own context.

The changes in the teaching behaviors of the student teacher followed two patterns which were depicted in Figure 8. The main pattern was "the slump". From Week 1 to Week 4 Bill and Michele commented positively on Betty's teaching behaviors. During Weeks 5 and 6 there was a marked deterioration in Betty's performance and Bill's and Michele's comments were more negative as judged by the researcher. Betty began to recover in Week 8 but her continued progress was limited by changes in the physical education program at Tiergarten during the remaining weeks of the experience which reduced her opportunities to teach. The second pattern was a weekly series of waves in which Betty experienced difficulties early in each week and then, with Bill's assistance, recovered later in the week.

"The slump" coincided with a change in the relationships between the members of the triad which were described as frame clashes.

Betty gained a satisfactory grading at the completion of the experience but was unsuccessful in obtaining a teaching and/or coaching position in the school district.
CHAPTER FIVE

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

In this chapter, the conceptualization of student teaching and methodological issues in studying it are reviewed, followed by a summary of the case study, and a discussion of generic issues arising from it. From the discussion emerged recommendations for the practice of student teaching, and for future research.

Student teaching is a common feature of the final stages of most preservice teacher education courses. It serves as a period of transition from student to teacher. Student teachers have been the focus of considerable research in teacher education (RTE) but the cumulative findings to date have been described as "piecemeal, particularistic" (Koehler, 1985; Zeichner, 1986a), and "non-empirical, craft-oriented, and scattered widely across different perspectives and topics" (Griffin, et al., 1981, p. 44). Locke (1984) lamented that, despite the popularity of student teaching in RTE (and its subject matter specialist derivative, RTE-PE), little was known about the realities experienced by student teachers in schools.

From a synthesis of the literature it appeared that understanding student teaching was hampered by: (a) inadequate conceptualization of the phenomenon; and (b) the research methodologies employed to delve into the phenomenon, given that the
conceptualization of a phenomenon is both influenced by, and determines the methodologies.

The Conceptualization of Student Teaching

The conceptualization of student teaching must define the phenomenon by delineating its external and internal configurations in such a way that a clear body of knowledge is identified but amenable to growth.

Four interrelated but separate bodies of knowledge shape the external boundaries of student teaching -- Research on Teaching (RT), and RTE, and subject matter specializations in fields such as physical education giving rise to RT-PE, and RTE-PE.

RTE, reflecting its foundations in teacher education, progresses along a continuum with at least three clearly identified phases -- preservice preparation, induction, and inservice education. Each of these has its own structure. The structures are as diverse as the institutions in which teachers are educated, and work. Student teaching needs to be understood as the period of transition between preservice preparation and induction.

The internal structure of student teaching must take account of at least three interacting variables -- people, program, and context. Each of these in turn has its own composition as schematically represented in Figure 9.
US = University Supervisor
CT = Cooperating Teacher
ST = Student Teacher

Figure 9. A schematic representation of the conceptualization of student teaching.
The most obvious people involved with student teaching are the student teacher and cooperating teacher who form a dyad. Together with the university supervisor they form a triad. In addition the university may appoint a coordinator to oversee the triad thus forming a tetrad. Initially these people are drawn together by their common interest in teaching, and often a particular subject matter focus such as physical education. A useful heuristic device for describing the interaction between the people of student teaching was the frame of reference described by Weade and Green (1985). Frame of reference has two dimensions — curricular and pedagogical, and personal. The construction of a frame of reference for each member of the triad facilitates an examination of the aspects they share, and those on which they differ, a situation termed frame clash. When there is a high degree of frame sharing there is much overlap of individual frames (see Figure 10). Conversely when there was frame clash the individual frames move further apart (see Figure 11).
Figure 10. A schematic representation of the conceptualization of student teaching when the variables are highly interactive.
Figure 11. A schematic representation of the conceptualization of teaching when there is minimal interaction of the variables

US = University Supervisor
CT = Cooperating Teacher
ST = Student Teacher
The construction of frames of reference links the interactions of the triad within and across the local and broad contexts to include the school and the pupils, and nonschool aspects of the student teacher's life which impact upon the teaching behaviors.

Interaction between the members of the triad and the context is mediated by the program of student teaching. The program has at least two components — the program of the school that the student teacher teaches to the pupils, and the program of the teacher education course which attempts to link RT to RTE. The teacher education program is concerned with the process of teaching learners how to learn, and content or the subject matter to be taught (Locke, 1985). Tasks and activities linked process to content. In student teaching tasks and activities can be further delineated into those which the student teacher performs as a student of the teaching-learning process, and those which the student teacher performs as a co-teacher.

The context of student teaching includes the physical setting and the interaction of the people with the context, and with each other. The host school is the local context. It is surrounded by ever-widening circles of people and organizations, the broad context, including the university which influences what occurs in the school. The link between the local and broad context is direct through the supervision of the student teacher by the university supervisor, seminars on campus during the student teaching experience, and the aforementioned tasks and activities.
As with the people of student teaching, components of the program and context can be highly interactive with much overlap (see Figure 10) or they can be distant (see Figure 11). Many combinations of interactions between the variables are, of course, possible.

Methodological Issues

It is apparent, even allowing for the parsimonious nature of the above conceptualization, that student teaching is a problematic phenomenon to investigate because of its complexity, and the interactive nature of its variables. Traditional quantitative research designs cope with complexity by attempting to control as many of the extraneous variables as possible. In the process, naturally interactive variables become isolated from each other. In RTE this has probably contributed to the "piecemeal, particularistic" descriptions. Qualitative research copes with complexity by reporting in detail the variables under observation, and the on-going decision-making of the researchers. Recently qualitative research, and mixed quantitative-qualitative paradigms have become more acceptable in RTE and RTE-PE, and there is growing recognition of the need to observe the phenomenon to understand it.

An exemplary study by Griffin et al. (1983) used both quantitative and qualitative techniques. Griffin et al. described the student teaching experiences of 93 student teachers as being in a state of "conceptual disarray", and founded on an inadequate knowledge base. While Griffin et al. observed both student teachers
and cooperating teachers teaching in classrooms the observations were few in number and intermittent. The study provided a global picture of "typical" student teachers in the study sites, and pioneered a methodology which, with refinement, had the potential to reveal more about the classroom experiences of student teachers. The refinements could be pursued in several directions, for example, plugging the gaps in the original design to then replicate it to continue to look across and between populations of student teachers to determine generic student teaching variables. An alternative was to pursue the variables identified to date by undertaking continuous observation of one student teacher to develop a more holistic understanding of the interaction of the variables. This was the route chosen for the current study.

**Summary of the Case Study**

A case study, employing Evertson and Green's (1986) heuristic approach to observation as method and inquiry, was used to describe the changes in teaching behaviors of a physical education student teacher, Betty Snow, over the course of a ten week student teaching experience in spring quarter 1986 at Tiergarten Elementary School. Betty taught at the school each morning. She was supervised daily by her cooperating teacher, Bill Stanley, and visited weekly by her university supervisor, Michele Felix. During the experience Betty taught ball handling skills to primary classes, and softball, track and field, and adventure games to the intermediate grades, and assisted Bill conduct five field days. In addition, Betty attended
three briefing sessions held on the campus of The Midwestern University, one in the College of Education, and two conducted by Dr. Thomas, the coordinator of physical education student teachers.

The researcher was an observer participant who employed multiple data collection techniques of which the principal ones were audiotapes and fieldnotes. These were supplemented with documents and photographs. Interviews were conducted with each member of the triad before and after the student teaching experience. Informal discussions during the experience were also recorded. Betty and the researcher each maintained individual reflexive journals.

The major variables of student teaching -- people, program, and context, and their component variables -- formed natural units which facilitated the data collection, storage, and preliminary data analysis. More discrete analytic categories were developed using Spradley's (1980) concepts of domain and taxonomic analyses, and the principles of time-order and role-by-time matrices proposed by Miles and Huberman (1984). Throughout the study, and especially after the data analysis, several procedures were used to scrutinize for sources of error. These included memos, peer debriefings, member checks, and an audit trail.

To explore the changes in the teaching behaviors of the student teacher nine research subquestions framed the study. Given the nature of student teaching as a complex phenomenon the subquestions were closely interrelated. This was particularly evident with subquestion nine (the characteristics of the members of the triad), and subquestions describing the context. In order to frame the
answers to the other subquestions, the frames of reference of the members of the triad, and a detailed description of the context were presented at the beginning of Chapter Four followed by each subquestion in order. The findings culminated in subquestion 8. What follows are the major descriptions resulting from each subquestion beginning with the characteristics of the members of the triad.

9. who were the members of the triad, and what characteristics did they bring to the student teaching experience?

Frame of reference was used as the heuristic tool to describe the characteristics of the members of the triad. Although they were at differing stages of their student and teacher careers each member was closely associated with physical education teacher education at The Midwestern University, and the school district. Each member was an active sports participant but at differing levels of eliteness. During the student teaching experience, however, their relationships changed. Betty appeared to hold a different commitment to teaching than either Bill or Michele.

1. what did the student teacher engage in during the ten week student teaching experience?

The Student Teacher Handbook issued by The Midwestern University identified two major roles for the student teachers: (a) learners who study the teaching-learning process; and (b) co-teachers whose teaching responsibilities increase day-by-day. As a student of the teaching-learning process Betty's experiences fell
into two broad categories: (a) those not directly involving school pupils such as briefings, conferences, and research; and (b) those in which she directly studied pupils, teachers, and subject matter.

Betty's experiences as a co-teacher were tied to the organization of the physical education program at Tiergarten. She began teaching the intermediate grades in Week 1. Betty used the same weekly lesson plans for each grade level. Modifications were infrequent and were in response to changes in the weather or total school organization. The primary grades were allotted to her in Week 4. In both grade levels her initial responsibilities were for critical elements of skills. She quickly progressed to instructional activities, and whole lessons.

2. at the commencement of the student teaching experience how did the student teacher learn the context already existing in the school?

In addition to her observations as a student of the teaching-learning process, Betty learned the context of teaching physical education at Tiergarten through a series of tasks set specifically for Weeks 1 and 2 for her by Bill, Michele, and Dr. Thomas. Included in the list of tasks were learning the pupils' names, getting to know the school, and introducing herself to the staff. Bill guided Betty on tours of the school and playgrounds. Betty's performance on these tasks was monitored principally by Dr. Thomas in briefing sessions and/or an assignment. Bill considered that Betty would learn most effectively through active participation.
3. To what extent did the cooperating teacher and/or university supervisor teach the student teacher about the context of teaching in that school?

Three terms were used to describe Bill's teaching behaviors: (a) proactive; (b) interactive; and (c) reactive. The terms conveyed two pieces of information. First, the terms described the timing of the interaction, that is, before, during and after lessons. Second, they emphasized that Bill was actively engaged as Betty's teacher. He used a variety of teaching techniques and aids such as the B-ALT:PE Observation Schedule. When aids were used there was continuity between Bill's proactive and reactive behaviors, but often his behaviors resulted from his interpretation of the class situation in what he termed a "teachable moment". Bill's interactions with Betty during lessons were public, that is, sufficiently audible for the pupils to hear; private, that is, audible only to Betty; private-public; and public-private. Most interactions were verbal but on several occasions Bill demonstrated the physical activities he wanted Betty to teach to the pupils.

4. Who or what did the student teacher observe during student teaching and what were the consequences?

5. Who or what did the student teacher not notice during student teaching and what were the consequences?

The researcher determined the focus of Betty's observations from Betty's verbalizations to the pupils, Bill and Michele, and the researcher. The verbalizations were classified according to the three types of activities in which Betty engaged the pupils: (a)
instructional; (b) organizational; and (c) interpersonal. Her instructional comments were directed towards techniques of skill execution. Betty observed the pupils as they performed the activities in classes. Initially she gave very specific skill feedback to the pupils but as her teaching responsibilities increased her comments became more global. Organizational observations were principally concerned with transitions between venues, and equipment. She endeavored to keep transitions to a minimum to give the pupils maximum activity time in instructional activities. Her interpersonal comments suggested that she was aware of the pupils' location, and heard many of their interactions, however, she experienced considerable difficulty in controlling the classes because she did not clearly state her rules at the beginning of co-teaching.

6. how and when did the student teacher implement the advice of the cooperating teacher and/or university supervisor?

Advice was given to Betty in the form of written and verbal goals and tasks. The tasks originated in the printed materials distributed from the College of Education, and Dr. Thomas, and were modified by Bill and Michele to suit the context at Tiergarten. There were two broad categories of tasks for Betty: (a) as a student of the teaching-learning process; and (b) as a co-teacher. The former were characterized by their discreteness from each other according to their time boundaries. Several of these tasks, such as conferences and briefings served as the distribution point for the co-teaching tasks. This latter group were further categorized as
instructional, organizational, and interpersonal. The co-teaching tasks were generic across grade levels, and continuous throughout the quarter. The emphasis given to the tasks varied, as did Betty's success in attaining them and the monitoring of them.

7. What influence did the context have upon the student teacher and how was the context influenced by the student teacher?

Betty interacted in two levels of context: (a) the local context at Tiergarten where she taught elementary physical education; and (b) the broader context of the school district, especially the high school where Betty taught each afternoon, and coached the girls' freshman softball team. In Week 1 Bill structured the local context at Tiergarten so that Betty might influence it both as a student teacher, and as a college basketball player. Betty appeared to prefer the former, and did not build upon the structure Bill had created for her as a basketball player. Betty's influence as a student teacher fluctuated around the changes in her teaching behaviors. From Weeks 1 to 4 her influence was positive but in Weeks 5 and 6 she suffered "the slump" when there was a marked deterioration in her teaching as judged by data collected by Michele using the B-ALT:PE Observation Schedule, the feedback given to Betty in conferences, and the tasks set for the following week.

8. What were the outcomes of the student teacher maintaining or changing the context?
Generally, Betty appeared to work towards maintaining the local context at Tiergarten rather than attempting to change it. There were two outcomes which were closely related to each other. First, Betty experienced "the slump". The major pattern of "the slump" was initial improvement in teaching skills, followed by deterioration then recovery. A secondary pattern of weekly fluctuations was also evident. Bill responded to "the slump" by paying close attention to Betty's lesson plans. Michele videotaped a lesson so that Betty might see herself teaching. Betty, however, did not view the video. "The slump" was the summation of the changes in Betty's teaching behaviors. Second, Betty's relationships with Bill and Michele changed concurrently with "the slump". Bill did not consider Betty to be as excited as he was about teaching, while Michele considered that Betty's "busy schedule" did not allow her time to adequately prepare for teaching, or to reflect upon her lessons. Furthermore, it appeared to the researcher that the members of the triad were unable to communicate clearly with each other at all times.

Discussion and Recommendations

The case study of Betty's student teaching experiences at Tiergarten with its emphasis on direct observation supported the conceptualization of student teaching as the interaction of three variables -- people, program, and context, and their component variables. However, Betty's experience at Tiergarten was unique. It cannot be repeated with Betty as a student teacher, although Bill
and Michele may interact again in the future in other triads. It is appropriate now to consider aspects of the case study which give rise to generic issues.

Erickson (1986) suggested that studying concrete cases in qualitative RT was useful in its own right, and as the base from which would emerge generalizations to be tested in other classrooms. While the focus of RT differs from RTE, Erickson's suggestion to use concrete cases as the foundation for generalizations about teaching and learning, has merit as a means of understanding educational phenomenon in both RT and RTE. What remains largely unexplored, however, is the territory between the concrete cases and generalizations. One way to progress from the concrete cases to generalizations is to apply the same conceptualization of context as used in this case study, that is, to view concrete cases as local contexts embedded in layers of broad context, or generalizations.

The following discussion raises issues to be explored initially within the context immediately surrounding the triad then the broader context of student teaching in teacher education. The issues generated recommendations for: (a) the practice of student teaching; and (b) future research. The two sets of recommendations are not mutually exclusive given that changes in practice create a new context and hence are worth of research as concrete cases in their own right, and conceptualization of phenomenon influences methodology by which it is studied. Hence the recommendations for future research embrace both the qualitative and quantitative
paradigms. The recommendations should not be viewed as panaceas for problems associated with student teacher. Rather, the intent is to improve the quality of the practice by enhancing our understanding of it in the local and broad contexts.

The discussion begins with "the slump". It was the critical feature of Betty's student teaching experience, and emphasized the interaction of the variables. Then each variable is addressed in the order used throughout the report, that is, people, program, and context, progressing from local to broad contexts. Of necessity the discussion of each variable includes its interaction with the other variables, and often the methodology of the study.

"The Slump"

The coordinator of student teachers in the College of Education at The Midwestern University guaranteed the student teachers at their briefing session that they would experience some very difficult lessons. The difficulties experienced by Betty were portrayed in "the slump". Both quantitative and descriptive data depicted "the slump" and demonstrated a means of recording changes in teaching behaviors. The quantitative data were obtained from the B-ALT:PE Observation Schedule employed by Michele and Dr. Thomas (Table 15). Betty transferred the data to the Cumulative Observation Graph (Appendix Q). The qualitative data were contained in the transcripts of the conferences, and fieldnotes.

"The slump" was a traumatic experience for Betty. Events in both the local and broad contexts contributed to it. While "the
slump" appeared to be unique to Betty the reader is reminded that another student teacher in Betty's cohort withdrew in Week 7 (see gaining entry). Further evidence is needed about: (a) the passage of the student teaching experience to determine fluctuations; (b) the point at which one student teacher withdraws while another sees the fluctuations as part of a challenge to be overcome; (c) whether fluctuations are more or less likely of bipartite or single site experiences; and (d) the effect of traumatic student teaching experiences on the nonschool life of student teachers. In addition to systematic observation of student teachers with instruments such as the B-ALT:PE Observation Schedule, data could also be obtained through journals, and surveys.

Each member of the triad responded according to what they considered to be a potential means for helping Betty recover. However, opportunities for Betty to recover were limited by the number of lessons available for her to teach in the weeks remaining in the school year. The situation was problematic. It has implications for: (a) strategies recommended to the student teacher to cope with adverse situations; (b) the confinement of student teaching to preset time boundaries; and (c) the occurrence of student teaching at the end of the school year when the regular school schedule is disrupted for special events.
Frame of reference

The construction of the frames of reference enabled the interaction of the triad with the local and broad contexts to be described in considerable detail via: (a) frame sharing; and (b) frame clashes.

Frame sharing

Betty, Bill, and Michele blended into the local context of Tiergarten because it was the locus of the student teaching, and because aspects of their frames were intimately linked with the broad context — Betty as a student teacher in two settings in the same school district, coach, and job hunter, Bill as a teacher and resident, and Michele as a resident. Other student teachers will share portions of their curricular and pedagogical domains with their cooperating teacher and university supervisor because of their association with the teacher education institution as students and faculty in physical education teacher education. In the personal domains of physical educators active, but separate, participation in sports may be a shared dimension.

Given frame of reference as an heuristic device for exploring the people variable several issues arise: (a) how much of their frames do members of triads share? (b) how much of their frames do they need to share in order to achieve a positive student teaching experience? (c) do the cooperating teacher and university supervisor behave similarly or different in different triads? and (d) to what
extent are frames shared, or do they clash in elementary triads for both classroom generalists, subject matter specialists, and all secondary school triads (when all secondary people are specialists)?

Frame clash

Two aspects contributing to the divergence of the members of the triad were: (a) Betty's apparent preference for teaching and coaching secondary pupils; and (b) a different understanding of a commitment to teaching. It often appeared from Betty's "busy schedule" that she perhaps did not understand what was meant by a commitment to teaching according to Bill and Michele's criteria. Yet her commitment was sufficiently strong for her to complete the challenge of student teaching.

Furthermore, Griffin et al. (1983) in the R&DCTE study found little evidence of ideological links between the university and the schools. Perhaps those links are further strained by differing interpretations by the student teachers as to how they can employ teaching skills in future in careers other than teaching. Locke (1979) suggested that one of the values of student teaching was to confirm the choice of teaching as a career. Disconfirmation may be equally important even if somewhat distasteful to cooperating teachers and university supervisors like Bill and Michele who value teaching above other forms of professional employment in which teaching skills can be employed. Consideration needs to be given to: (a) the application of the skills of an effective teacher to other forms of employment; and (b) discussions of alternate careers
in which graduates can employ their teaching skills. The immediate application for the physical education teacher is in coaching.

"Busy schedule"

Closely implicated in the frame clash was Betty's "busy schedule" over which Bill and Michele expressed concern about the impact on her teaching in both schools. While Michele recognized that Betty had the right to determine her own priorities, Michele suggested some strategies through which Betty could organize her softball coaching commitments to give her more planning and conference time at the high school. However, apart from DeVoss' (1977) study little is known about the life of student teachers concurrent with student teaching, and therefore more definitive information is needed to determine the criteria by which Betty's schedule could be judged as "busy": (a) what does a day, or week, look like for most student teachers? and (b) how many commitments can a student teacher handle before their teaching is affected?

Several research designs could be used to gather more information about the life of student teachers. One design would have the student teachers to maintain a daily log as part of a journal. The second design would be a survey of a population of students teachers in one teacher education program seeking details of employment, sports/arts participation, family demands on student teaches' time. A third possibility would be to include case studies within a survey similar to the secondary analysis conducted by O'Neal (1983), and O'Neal and Edwards (1983) in the R&DCTE study.
Furthermore, as an expansion of the frames of reference, and criteria for assessing the commitments of the student teacher, an additional methodological step in a replication of the case study would be to have the cooperating teacher and university supervisor maintain journals.

Coaching would form a separate category on the survey. Some people chose to coach voluntarily while for others it is an essential source of income needed to pay for their education. The coaching item on the survey should not be restricted to physical education student teachers.

A further issue then arises about the responsibilities of the cooperating teacher, university supervisor, and coordinator of student teachers to counsel the student teacher to plan the other parts of their life in order to complete student teaching.

**Bipartite student teaching experiences**

One aspect of Betty's "busy schedule" was the bipartite nature of her student teaching experience, that is, in both an elementary and a secondary school. This gave rise to two issues: (a) the logistics of the coordination of the experience; and (b) the personal support system.

First, there was minimal coordination between the two cooperating teachers for Betty's experience even though they were in the same school district. Betty was the go-between. Michele served as the coordinator. Betty was required to work towards the attainment of the same criteria for evaluation and feedback in both
schools yet her two cooperating teachers did not liaise to synchronize the experience except to ensure Betty had equitable time in each school.

Second, the interaction between the people in two schools was further complicated by the differing emphasis each member of the triad placed on differing portions of their own and each other's frames and these differences were not clearly articulated. Betty moved away from Bill and Michele, and towards her high school cooperating teacher who appeared to be more supportive of Betty as a person than Bill. Bill, according to Michele, held Betty more accountable to the tasks of student teaching. Bill and Michele's relationship remained the same. Thus, in the case study the members of the triad changed over the quarter from the interaction depicted in Figure 10 at beginning to that depicted in Figure 11 at the end.

This change in interactions added an extra dimension to the notion of outsider-insider portrayed by Zimpher et al. (1980). They found that the university supervisor was the outsider by virtue of his or her intermittent visits to the school, and emphasis he or she gave to the teaching methods advanced by the teacher education program. This contrasted with the "going-with-what-works" approach of the cooperating teacher and student teacher. If the university supervisor and cooperating teacher have worked together before, and share aspects of their frames of reference then initially the student teacher may be the outsider. Furthermore, in a bipartite
experience the student teacher has the opportunity to "go-with" the cooperating teacher who she or he considers more support of her or him.

It is recommended that cooperating teachers of student teachers in bipartite experiences confer regularly to coordinate the experience in conjunction with the student teacher and university supervisor.

Betty Basketball

A distinctive feature of Betty's frame of reference was her history as a basketball player. Bill introduced Betty to the pupils at Tiergarten as a college basketball star. For a small group of grade 5 pupils she was "Betty Basketball." Betty herself chose not to refer to this dimension of her personal frame, and appeared to want to focus only on student teaching, even given that her career preferences were probably in coaching. Bill attempted to have Betty use her basketball talent as part of the reinforcement system through "don't give anything away." Several issues arise: (a) members of the triad bringing each other's nonschool life into student teaching; (b) utilization of special talents to aid teacher effectiveness; and (c) utilization of the sporting prowess of individuals for the promotion of education.

Betty was not asked if she wanted to be introduced as a basketball player. Does public recognition give automatic rights to others for the use of talent in all situations? Teacher educators, especially cooperating teachers, should confer with the student
teacher about the introduction of the student teacher to pupils, and what purposes particular forms of introductions serve, whether or not the student teacher is a "celebrity."

In addition celebrity student teachers need to be counseled on how to behave in schools. For example, should a sports star like Betty actively recruit potential players to her sport? Can recruiting occur if the sports star does not respond to other attempts to relate to their sports experiences?

The broadest contextual extension of special talents raises the issue education drawing upon the talents of its own professionals to advertise/sell education and/or the outcomes of education. Advertisers of products ranging from soap to cars have no hesitation in using celebrities from a variety of walks of life to promote their products. Physical education does very little, if anything at all, to use the sporting prowess of its own professionals to promote the goals of healthy living and active sports participation.

This is a complex issue requiring systematic and longitudinal research in which sports stars are identified prior to entering college, and/or teacher education and followed through their college careers thus extending Steen's (1985) study of pre-admission socialization of physical education majors contemplating entry into student teaching.

The complexities of the life of college student-athletes are receiving attention. For example, Blann (1986) has been studying educational welfare and personal development through "developmental task" constructs such as autonomy, life purposes, and mature
interpersonal relations. Blann has placed emphasis on the occurrence of the student-athlete's commitment to training for, and excelling at sports at a time when they must confront and achieve developmental tasks unique to young adults. For physical education majors, including student teachers, an additional task may include employing their sporting talents in their course of study.

Untouched to date in the studies of student-athlete is retirement from competition. Retirement probably constitutes an additional "developmental task" for a college athlete. Blann stated that fewer than one percent of college athletes achieve professional sports status. Betty decided against a career as a professional athlete by rejecting an offer to join the women's professional basketball league. Thus, her career options lay in physical education and/or coaching. It was the first time in 12 years that Betty did not know what she would be doing in the next school year. She appeared to want to keep basketball separate from student teaching. Is retirement from college athletics more or less difficult if the chosen career draws directly on athletics as, for example, teaching physical education and coaching sports?

Additional variables to be considered are the types of sports played, for example, individual, dual, or team, and whether the sport is a major or minor one, for example, basketball compared to fencing; the impact of sports stars as compared to those who are less successful in sports, sports stars (or other celebrities) teaching in subject matter areas other than the area in which they
have gained public recognition, for example, a sports star as an elementary classroom teacher.

Program

Tasks

Interaction between the people was facilitated in part by the program in the form of tasks set for Betty by Dr. Thomas, Bill and Michele. The tasks and their companion activities linked the content of physical education to the processes of teaching. The tasks were set across contexts, that is, the origin of the tasks was in the university, the broad context, while the refinement and implementation were in the local context. This case study supports Tinning's (1983) advocacy of tasks in student teaching contingent upon systematic monitoring and recording of the student teacher's performance. Bill suggested a bulletin board in the physical education office to chart the weekly progress of the student teacher and to retain focus on tasks. This should be explored. Furthermore, there is a need to explicitly link the tasks with the criteria for evaluation and feedback, and to designate which member of the supervisory team is responsible for monitoring specific tasks.

It is further proposed that the demands of the tasks set for student teachers differ between the two settings. For example, at the elementary school Betty interacted with nearly all of the pupils. Therefore she had far more names to learn than at the high school where she taught the same classes everyday for an extended
period of time. Replication of the study in different levels of schooling should compare the contrast tasks and activities.

Sameness

A consistent trend in the analysis of the lessons taught during the quarter was the sameness across grade levels particularly in lessons taught by Betty. Bill and Michele urged Betty to modify her lesson plans but once a "workable" plan was established early each week Betty adhered to it for the remainder of the week. This is a demonstration of "going with what works" (Tinning & Siedentop, 1985).

Underpinning the lesson plans was the unit plan which in turn had been derived from the school physical education program. There was no apparent provision in the latter for differences between the intermediate grades. Yet, there was no obvious reason for pupils to have identical skills, or critical elements in skills. Grades 4, 5, and 6 undertook the same softball, and track and field events which culminated in the field days held on separate days. They did not compete across grade levels. The only differences in the events each day were in the weight of the shot put, height of the hurdles, and the novelty events. Several avenues are worthy of further investigation: (a) the "sameness" of lesson plans stemming from undifferentiated elementary school programs; (b) "sameness" as a feature of other specialist programs such as music and art; and (c) the ability of student teachers to modify unit and lesson plans given "sameness" in the school program.
Replication of the case study in the secondary level may illuminate some of these issues because of the differing physical education program and organization. In the high school the pupils remain the same each day because they have daily physical education. The content changes daily for them. There are two possibilities for further investigation: (a) the content as the dependent variable; and (b) the pupils as the dependent variable.

**Context**

**Bipartite student teaching experiences**

The most pressing issue arising from the case study with regard to context was the division of the student teaching experience between two schools. Zeichner (1986a) noted that few details had been documented about the duration of student teaching and placement sites. Further information is needed about: (a) the extent of bipartite student teaching experiences; and (b) the outcomes for student teachers in terms of their performance during student teaching and the jobs they secure.

In terms of the student teacher becoming part of the context Betty's experience suggested that the division made it difficult for her. Betty felt that she was an outsider at Tiergarten. This resulted in part from her own schedule, and because the context enabled her to adhere to her schedule. Underpinning the division is the system of certification which permits bipartite experiences. If certification is required for more than one level issues to be
addressed include: (a) dividing one experience; or (b) requiring two separate experiences.

Methodological issues

While the two schools independently organized Betty's student teaching experience, gathering data only in the elementary school proved to be a limitation of the study. Events such as conferences at the high school impacted upon the elementary school for the student teacher. Descriptions of the broader context were supplied by members of the triad. Michele was particularly informative about the high school in her written member checks. Unless all members of the triad respond in equivalent detail there appears to be increased risk of bias towards the most informative participant. Conversely, in this study, the information supplied in the member checks, and the manner in which it was supplied was consistent with the communication patterns between the members of the triad, that is, Betty provided few details and had minimal reaction to the member checks, Bill gave positive feedback, and Michele took an analytic stance. Therefore, the member checks were important for confirmation of the data, and as a further example of consistency in the behaviors of the subjects.

While doubts may be raised with the suggestion of potential bias from the member checks, informing the participants of the findings of the study was an essential step in helping them understand the experience. For example, Michele did not know the extent of Betty's co-recreational softball participation. In
addition the member checks contributed to enhancing the interaction between the researcher and the members of the triad, especially Bill and Michele who subscribe to an applied behavioral analysis philosophy and had little experience with qualitative research. They willingly undertook four member checks.

Because of the limitation to one setting the study must, like its predecessors, accept in part the label "piecemeal, particularistic". The issue arising then is how to study a student teacher in two settings given the labor intensive nature of direct observation and compilation of expanded fieldnotes. One possibility is to employ more than one researcher. A minimum of two researchers would be required, one in each setting. For accuracy of the observations it would probably be better for the observers to alternate between the settings, rather than remain solely in one setting. However, what must be then considered is the degree of pressure to which the student teacher would be subjected. Betty was able to cope with one observer in one setting. It is not known how important it was for her to be free of the observer in her second setting.

In summary, by conceptualizing student teaching as the interaction of three variables -- people, program, and context, and their component variables -- it was possible to observe and describe a concrete case. The experience of the physical education student teacher described was unique. Recommendations and questions were generated from the conceptual, and methodological issues in the study.
Postscript

Betty had received several job offers during her student teaching experience. During the summer vacation the two offers which attracted her most were: (a) a position in a secondary school in her home state teaching physical education, coaching basketball and softball, and assisting the athletic director in the organization of the school athletic program; and (b) assistant women's basketball coach in a Division I college in another state. She chose the latter, thus confirming Bill's prediction that her preference really lay with coaching rather than teaching physical education.
BIBLIOGRAPHY


Harker, J.O., & Green, J.L. (1985). When you get the right answer to the wrong question: Observing and understanding communication in the classroom. In A. Jaggar & M.T. Smith Burke (Eds.), Assessing the language learner. Newark, New Jersey: International Reading Association, NCTE.


Hughes, R., Jr., & Hukill, H. (1982). Participant characteristics, change, and outcomes in preservice clinical teacher education. Austin, Texas, Research and Development Center for Teacher Education, The University of Texas at Austin.


Glossary of Terms

Activities: bounded segments of classroom time characterized by an identifiable focal content or concern, and a pattern of action (Doyle, 1984).

B-ALT:PE: Basic Coding System for Academic Learning Time in Physical Education.

BER: Basic Education Requirement

Behavioral interactions: a reaction by the teacher to the appropriate or inappropriate behavior of pupils. After the pupil behaves appropriately or inappropriately the teacher responds. Behavioral interactions by the teacher may either be positive or negative; and may be verbal or nonverbal (Siedentop, 1981).

Bipartite student teaching experience: when a student teacher is placed in two different schools for the duration of student teaching, for example, an elementary school in the morning, and a secondary school in the afternoon.

Classroom ecology: that network of interconnected processes and events which impinges upon behavior in the teaching environment (Doyle & Ponder, 1975).

Coding: description of the behavior of a member of the triad using the B-ALT:PE while observing another member of the triad teach.

Context: a setting in which people interact with each other, and their surroundings.

Critical elements: the definable aspects of a task and activity.

Current interactions: a here-and-now attempt by a teacher to support or modify pupil behavior, and may be either verbal or nonverbal (Soar & Soar, 1979).

Dyad: the student teacher and cooperating teacher.

Established structures: "represents internalizations by the pupils of the limits to behavior, patterns of behavior that are carried out, and sequences of activities that have been established in the past" (Soar & Soar, 1979, p. 101).

Field day: a day when pupils in all classes in one grade level participated together in competitions in track and field skills, and some novelty events.
Frame of reference: a heuristic device adapted from Weade and Green (1985) to describe the curricular and pedagogical, and personal domains of people in educational settings.

Frame clash: occurs when portions or whole frames of reference of people differ.

Frame sharing: occurs when portions or whole frames of reference of people agree.

"Homes": specially painted and numbered markings on the gymnasium floor assigned to pupils in each grade for organizational purposes.

Hustle: a verbal or nonverbal behavior that is used by the teacher to energize pupil behavior, that is, communicating to the pupil the need to keep trying, to keep the lesson moving, and to continue to put forth an effort (Siedentop, 1983a).

Interactive teaching behavior: interaction of the cooperating teacher and student teacher during lessons.

Lessons: periods of class time bounded by the school schedule, and a change of pupils in a subject matter area taught by a specialist teacher.

Major transition: a change between the activities in a lesson usually requiring physical relocation of the pupils and/or teacher.

Minor transition: a change of location of pupils and/or teacher within an activity.

Natural unit: units identified by the participants themselves, and not constructed by the researcher first but rather a naturally occurring event described by the researcher (Evertson & Green, 1986; Fassnacht, 1982).

Nonparticipant: a pupil who does not participate in scheduled physical education classes for medical or disciplinary reasons.

Proactive teaching behavior: interaction of the cooperating teacher and student teacher prior to a lesson being taught.

Program: a sequential course of study in a subject matter area.

R&DCTE: Research and Development Center for Teacher Education at the University of Texas at Austin.

Reactive teaching behavior: interaction of the cooperating teacher and student teacher after a lesson has been taught.
Record: a score in a track and field event by a pupil that exceeds scores obtained previously, and which was displayed on a bulletin board.

RT: Research on Teaching

RTE: Research on Teacher Education

RTE-PE: Research on Teacher Education in Physical Education

RT-PE: Research on Teaching in Physical Education

"The slump": Weeks 5 and 6 of student teaching during which there was a marked deterioration in the teaching performance of the student teacher.

Task: a statement of a goal to be achieved, and the process by which the goal is to be achieved.

Time out: (a) a procedure for the reduction of inappropriate behavior whereby the pupil is denied access, for a fixed period of time, to the opportunity to receive reinforcement (Alberto & Troutman, 1982).

(b) a verbal signal used by the teacher to advise pupils to cease physical activity and attend to the teacher.

Triad: student teacher, cooperating teacher, and university supervisor.
APPENDIX B

BASIC-ACADEMIC LEARNING TIME: PHYSICAL EDUCATION

OBSERVATION SCHEDULE
### OBSERVATION

<table>
<thead>
<tr>
<th>Teacher</th>
<th>School</th>
<th>Grade</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity</th>
<th>Start</th>
<th>Stop</th>
<th>In Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Observer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

### Key Behaviors

- **Management (M)**: related to class business, unrelated to instructional activity
- **Transition (T)**: managerial and organizational activities related to instruction
- **Waiting (W)**: completed a task, period of no activity and no movement between activities
- **Knowledge (K)**: listening to instructions, watching a demonstration, questioning, discussing
- **Activity (A)**: engaged in motor activity, actively responding, actively supporting
- **Off Task (O)**: -

### General Comments: (Consider - lesson plan, critical incidents, objectives achieved)

- -

### Summary Data

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

### Specific Comments: (Directly related to data)

- -
APPENDIX C

LETTER TO STUDENT TEACHER FROM RESEARCHER
March 4, 1986

Dear [Student Teacher's Name],

I am a doctoral candidate in Physical Education Teacher Education at The Ohio State University. For my dissertation I propose to conduct an indepth naturalistic case study of a physical education student teacher during the final practicum to determine the day-to-day realities to which the student teacher must react, and the resulting changes in teaching and managing skills. My adviser for the study is Dr. Daryl Siedentop.

You are the student teacher selected for the study and have been appointed to [School Name] Elementary School for the forthcoming spring quarter. Therefore, I am seeking your permission to be in the school on a daily basis whenever you are in attendance.

To conduct the case study I will need to make detailed fieldnotes and audiotape yourself and your cooperating teacher as you teach, and to conduct formal and informal interviews. These will be held at times convenient to you and your cooperating teacher and will not interfere with your teaching duties. In addition, I wish to take still photographs of the arrangement of the physical education equipment before and after lessons. Of particular importance to the study will be your record of what you do and accomplish each day in your student teaching and therefore I am seeking your cooperation in maintaining a daily journal.

The study does not involve any interventions or experimentation with yourself, the cooperating teacher, or the school students. It is an observational study. Throughout the study and in the final report pseudonyms will be used for all participants and the school. You are assured that all documentation will be confidential. Summaries of the findings will be available to the participants and yourself if so desired towards the end of 1986. Letters similar to this one are being forwarded to [School Superintendent], school principal, cooperating teacher, and university supervisor. I will not be your supervisor and will not participate in determining your assessment for student teaching.

If you require any further information, I will be glad to meet with you at a mutually convenient time. I can be contacted at work on 422-5679, or at home on 846-6283.

Thank you in anticipation of a favorable reply.

Yours faithfully,

Lynnette F.R. Embrey

Dr. Daryl Siedentop

Graduate Adviser
APPENDIX D

AN EXAMPLE OF THE EXPANDED FIELDNOTES
422

14 April

1. I arrived at school at 7:40 am since CT had told ST to be in by 7:45 am. Three books were set out on ST's desk: Tillman & Toner (1984) You'll never guess what we did in gym today!, Siedentop, Herkowitz & Rink (1983) Elementary physical education methods, and School yard Big Toys User manual with Hangups.

Reference details in original notes to be transferred to dissertation reference list.

CT mentioned to me before ST arrived that he was toying with the idea of letting (ST) burn today, not being here early enough to set out the fields and stuff but on the other hand "I want her to get off to a good start." CT set out the soft-ball mitts, rag balls, big red plastic bats, batting tees in the gym outside the equipment store.

See photo #23

ST arrived at 7:56 am. She was wearing blue shorts and a blue hooded sweat top with Tennessee on the front. A notice came over the PA system requesting all staff to go to the staff lounge for a short meeting. This notice was repeated again at 7:59 am. CT did not go to the meeting.

Although he well could have when ST went outside to set up the cones.

CT: what are your plans for today
ST showed him a green lesson plan sheet which had writing on one side.
ST: well see that's what we're been used too I don't know if you want it in more detail there
CT turned the sheet over
CT see this ought to be filled out this doesn't tell me anything about how much time you spend on teaching cues
ST: okay
CT: what happened or how things are organized where
029 ST  okay

030 CT  (inaudible) here it doesn’t if I’m going to teach the
031 lesson I need to know what activities they’re going
to do us what techniques you want me to work on
032 ST  okay
033 CT  they didn’t tell you to do it that way you should do
034  it like this just like that
035 CT  showed ST the lesson plan he had prepared for week 1.
036 ST  okay yeah I know
037 CT  you give me a lot of information
038 ST  well (CT) I forgot it was on the back it was just no
039 no okay that was really bad ‘cos I forgot it was on
040 the back because when I was looking at this I was
041 saying this isn’t right
042 CT  where’s now where’s the rest of your unit plan what
043 activities have you got on there
044 ST  took unit plan out of folder
045 CT  the block plan is here okay there (inaudible)
046 ST  okay what do you mean by that
047 CT  you got like ah two lines about 7 or 8 people and
048 (inaudible) no wonder that’s why I was out looking
049 at that and it was like wait a minute something’s
050 missing
051 Six Sbs came into the gym and began to use the softball gear
052 that CT has previously set out. At 8:00am CT told them to put
053 the gear down
054 CT  you guys go on outside this morning no I need peace
055 and quiet on Monday morning to get my act together
056 ST  one more time
057 CT  okay what sprints are we doing
058 ST  70m and 200m
059 CT  and where are we going to run them
060 ST  I was just going to run them around the pavement there
061 CT  okay we’re gotta workout where they start and finish
062 ST  right
063 CT  workout stuff like that (?)
064 ST  now
065 CT  you’re gotta do that yet
066 ST  hmm mm
067 CT  how how we going to get how are we going to get all
068 things recorded have you got any way for that
069
ST I was going to use cones
CT I'm really putting the pressure on you this morning
ST no no actually 'cos I mean I'm prepared that way but
CT I don't know
ST okay so we make get as quickly as possible so we get
these pens and write on their hands like that
CT okay
ST teaching perhaps I'm in big trouble
CT Some Sg came to the PE office with milk jugs and CT hunted
the brown nag under his desk to get roller skate key chains
for them. Two Sg came to ask if they could do anything for
CT. He could not think of anything right now but later
told ST to get them to help her set out the cones on the
grass. CT explained where to put the cones.

MN: I went outside with ST and 2 Sgs.

MN: diagram of set up (see overleaf)

CT advised Sg to make sure (ST) knew which way she was going
and to watch her carefully with the tape measure as she
tangled it last week. ST went over to the s-e boundary of the
school yard carrying the tape and cones/pylons. She placed
one cone in the corner about 10 yards from the trees. 1 Sg
walked backwards letting the tape unwind as she walked. ST
walked beside her facing w carrying 2 cones. CT had come
outside and was placing sacks along the grass near the
curbing.

MN: see photo #24

ST periodically checked the distance on the tape. There were
many Ss in the playground using the apparatus but they did
see to notice ST. ST placed a cone at 70m then told Sg to
reel in the tape measure and she called to her companion
in the s-e corner to walk it in

IN: companion may have been holding the zero of the tape

ST carried the tape and walked backwards about 15m then gave
it to Sg. While ST picked up the cones 1 Sg gave the tape
Figure 12. Main features of the outdoor facilities at Tiergarten Elementary School
to 2Sg and they walked pulling the tape along the ground.

As the Sg passed me I asked them how far it was. 70m.

distance last year. They could not remember except that they
had to run all the way down and back.

Discussion with 2Sg is taped

IN: 70m was approximately with the middle of the first piece
of climbing apparatus near the loading dock. I looked for
a really distinctive marker but could not find suitable
alignment.

More Ss came over to help with the tape.

IN: the 200m track runs downhill s to w and slopes s to n

At 8:15am a bell sounded and the Ss immediately began to
leave the playground and walk or run to their pod doors. The
2 Sgs ran to ST to give her the last cone. ST was now level
with the side of the softball diamonds. Buses and cars
were coming in and out of the carpark stopping to drop off
Ss. 2 sixth grade boys, Sh, were still shooting baskets.
ST walked back up to me and asked if I thought the distance
was 200m. I thought it was long. ST wanted to know if I
thought it was right. I had no idea. ST continued to explain
that it was 70m to where we were standing so 200m must be
right. At 8:20am another bell sounded. We were back in the
PE office. ST asked if I knew where CT was. I didn’t know
but suggested the staffroom since a meeting had been called.
Did I know what CT had set the sacks out for? I did not.
At 8:21am CT returned. ST exclaimed that 200m looked an
awfully long distance. She was going to have them time with
partners like they did inside. CT pointed to the page of
performance errors in the Siedentop et al text stating that
they were like what he needed on the lesson plan. He again
showed her what he had done with his plan in week 1. ST asked
how he wanted the cards. CT said that he would teach the
lesson and that she should monitor and evaluate it so she
could change it for the next lesson. If you time in pairs
time is lost. CT would do it a different way to give her a
comparison. He would time and the Ss would write the time on
their hands. He especially wanted a good measure of the 70m. ST challenged that she did not think that would be as accurate as then timing each other. CT reminded her that the first class was grade 4. On the back of one of ST's unit plan sheets CT drew a circle and explained that he was gradually giving the Ss more responsibility. He starts out by giving them examples of good responsibility in grade 4 gets an idea of what they can do and then gradually gives more responsibility to grades 5 and 6. An Sb came to the PE office with a milk jug. It did not have a top, nor had it been washed out. CT told Sb to go to locker room and wash then bring it back at recess. CT announced that he would take the first lesson advising ST to take paper and pencil with her to make notes.

CT here's a kid and here's responsibility here the more you do for them the less they can do for themselves if we are teaching them to time if we do all the timing that doesn't give them any responsibility in any way so I like to start out with a lot responsibility on my part to give them a baseline they understand they need it to get a good score and then they can use that score to see how accurate the times are on something else you see that ah if they are 11.0 ah the 70m dash and then get in here to the 200 and start running low to high 20's you have something wrong you know you've done the standard meter and you know exactly or an idea of what they can do so for fourth grade I like to give them take a little more responsibility as they get older fifth and sixth give them quite a bit it's the only time they are going to learn if they have an opportunity so I figure if I do the 70m then from then on give them more responsibility for timing During this explanation ST agreed with um, ah, right, okay.

CT well I'll I'll do this first lesson from some of the things you have and the second you can you can do that one ST okay CT take take some a notepad take some paper out there kind of put your lesson plan together ST (laughed) I just can't get over it
CT (laughed) I know we have great weekends it’s tough

to do that it’s tough

ST oh my gosh it just went too fast I was busy coaching

CT that’s what happens a lot when you get into that

coaching you’ve got to put your priorities where

they fall and you’re a teacher first (inaudible)

ST um how did your talk go

CT real good we had a full house you can’t complain about

that I guess

The discussion then turned to the venue and accommodation.

ST enquired as to where CT kept the numbers to the schools

in the district. He showed her on the pull out section of his
desk. She made a call.

I left the PE office and photographed the equipment set out

in the gym (see photograph #23)

CT picked up a red bat, a rag ball, and a softball mit and

placed them near the black line in the s-w corner. He tucked

pink and white sheets into the back waistband of his trousers

then went to the noticeboard to read the records.

see comment in post-lesson conference line #558, page 155

I had the feeling that the relationship between CT and ST was

somewhat strained because of her lateness, lack of a lesson

plan, and emphasis on coaching.

LESSON 1 grade 4 Ba

CT let the Ss into the gym and called them to sit around

him. He asked an Sb what was lying on the floor. Sb correctly

named each piece of equipment. CT advised Ss that S and

partner would need that amount of equipment. He discussed

the need to wear the glove on the left hand if you threw with

your right hand. The gloves were in separate piles according

to throwing hands. Ss checked the throwing hands and

collected the required equipment. Ss without a partner were

to come to CT. Ss lined up along the s wall near the s-e door

An Sg(pink) went to talk to ST. ST suggested that Sg(pink)

and Sb could be partners. Both were strongly against this.
CT hustled Ss to move outside quickly. At the area where
the sacks were set out CT called the Ss to him then told
them to put their softball equipment over at the curbing.
CT then put the Ss thru sack races over about dm first
individually in relays with their partners then together
like a 3-legged race.

IN: at the start of the first race CT went thru the starting
commands before the Ss were in the sacks then when they
expected him to call 'go' he called 'stop' so that he
had their attention.

IN: girl with arm in cast did not participate

After one turn at each type of sack race CT jogged
over to the start of the 70m track calling the Ss to hurry
and follow him. They were to assemble in 3 lines as soon
as they arrived. He thanked Ss for listening then
explained the starting commands. The first 3 Ss were to be
his helpers and write the times on the hands of then next
runners. Ss were to use a sprint(crouch) start and to watch
for the fall of CT's arm.

At this stage ST came over to me
Res beg your pardon
ST do you see the dalmatian
Res isn't he a beauty
ST yeah
Res he's obviously on a chain or something like that
Res have you got a dog.
ST a golden retriever
Res short or long-haired
ST he's he well his feathers are long but the hair on his
back is short (took him out for a swim yesterday)
this is really working out better than what I thought
it would I didn't really understand what (CT) was
saying inside
Res it is interesting to see it unravel in front of you
Res as to what exactly was meant
ST you guys get behind the cone
Ss ran in groups of 3. CT gave the starting commands from
the 70m finishing line and dropped his hand. Ss ran to him
The first Ss to run served to write the times CT called out
on the hands of the rest of the runners. The groups of 3
were of mixed sexes. An Sg lost her plastic shoes. ST
commented and I replied that they would be slippery. Ss
walked back after they had run. CT encouraged the runners
calling them by name. In the last group CT gave a watch
to Sg(yellow). CT announced that the group
would now run the 200m. The Ss groaned. CT jogged down to
200m cone and Sg(yellow) walked.

Class was now spread over 200m. Since ST is the focus of my
study I stayed at the same end as her and moved when she did.

ST commented on Sb who were cribbing over the start line
are you guys cheating
yes
move back to your lines

ST was holding the Siedentop et al text open with her lesson
plan in it. She wrote on the plan.

CT called the starting commands even though he was 200m
away. His hand drop was easy to see. In a heat the Sb was
slow to start while the 25g were fine. 35g ran next, I lost
her plastic shoes again. Sbs began to tease an overweight
Sb (the one Sg[pink] did not want to partner). He claimed
he ran and rode a bike. An Sb commented that they were jogging
on the beach like in ‘Chariots of Fire’.

My favorite music with some sentimental value - to my OS!

An Sb shushed the remaining Ss so that they could hear CT.

there is a pile of new tanbark in the playground. I guess it
is to go under the climbing apparatus.

25g and an Sb ran. 15g hopped then limped then walked from
about 50m. Ss asked each other what was wrong with her. They
seemed to think that she had a strained muscle. She stopped
for a short while at the first cone. 25g and Sb(fat) ran. The
Ss at the 200m mark were sitting and standing around CT.

250 Sg came up to ST saying that she had a pain and pointed to
diaphragm area. ST suggested that Sg run then tell (CT).

252 2 Sg, 1 Sb, 1 Sg (carrying plastic shoes) quit at 25m and
walked. The other Ss called her a wimp. CT talked to Ss.

IN: Stayed with ST, she can’t hear him either

257 Sbs began running back on the track to the 70m while Sg
walked back with CT. CT urged them to run and he jogged over
to the softball area. 1 Sb sprinted ahead, picked up his
and ran back to meet CT. CT told Ss to bring rag balls to
him and to throw wiffle balls away then come to him. At
9:01am Ss formed a semi-circle around CT who then asked which
foot would be forward with which hand thus introducing
opposition. CT demonstrated with Sb, K, noting that K
threw left so his right foot was forward. Ss were set
work in pairs with CT telling them that he would come around
and see everybody doing it, if not he would pinch them.

262 CT demonstrated fingers up for balls caught above the waist
and fingers down for balls lower than this. It was important
to keep the glove open. Some Ss would have to change their
gloves as they had the wrong ones. CT demonstrated with Sb,B,
over about 3m. Ss were to get a partner and get busy. Anyone
without a partner should go to CT. Ss were to complete 50
throws. CT picked up spare glove and moved around checking
gloves. An Sg said the record was ‘one so far’. CT then
called out numbers Ss called to him. If they dropped the
ball they had to start over. CT took the pink cards from
his waistband and carried them infront of his chest. ST
advised Sb, B, to use his glove to catch the ball. CT came
and spoke to ST asking if she had any ideas. The rest
of their conversation was only partially audible. ST
asked if CT wanted her to do the timing like him. CT said
yes to get as accurate as possible. CT called Ss to form
a semi-circle in front of him and counted to 12 till they
all arrived. CT introduced the ground ball and had 2Sb
demo over 10m and 2 Sg over5m. Pretend the ball is hot to
handle and keep it moving. CT advised Ss to find ground
‘that is kinda level’. He checked Sb without glove telling
Sb to put glove on. CT walked around inside the group
giving feedback and calling numbers. 20 was the record for girls. An Sg yelled 30. Sg with cast on arm had joined in.

CT suggested Ss move further apart. At 9:12am CT called Ss to him telling them to put glove and ball along curbing and to form a semi-circle facing the curb. CT picked up a bat.

\textbf{IN: \#1 Sb looked over my shoulder}

CT explained that he needed to record their 70m and 200m times but did not want them sitting around wasting time so they would practice 'PepperBall'.

\textbf{IN: Some of these messages to Ss seem also be directed to ST}

CT and Sg demo-ed over distance of about 3m. CT acknowledged Ss suggestion that some people call it "Pepper". Try it out. Sg were to go off and practice it while Sb stayed with him. As he called their name out they were to tell him first their 70m time then their 200m. Ss read these off their hands. CT stood to do this. As soon as had finished Sb could go off and play. Sg were in 2's/3's. Sg without partner came to ST who sent her to join a pair and take turns.

\textbf{IN: Ss could hit in any direction they liked.}

At 9:16am CT called the Sg to him beginning to ask first Sg before she had reached him. Sg came and told me that she had 49 but no-one had written it on her hand. I sent her to tell (CT). Sb were mixing pepper and fungo hits. Sg(dif) went to ST to check about the writing on her hand. CT called Sg name then wrote times. Ss looked at me. At 9:20am CT told Ss to put bats and balls near curb and go back to their classroom. CT explained to ST how forms were marked.

\textbf{LESSON 2 grade 5 W/O}

ST began by asking Ss how they were this morning then setting them 25jj, 15x-1, and running as fast as they could on the spot. At 9:26am she had them run into her for which
she praised them. She explained that they would be doing
the 70m and 200m. ST had been crouching in the group but
stood to demo the arm action. CT walked out carrying double
clipboard. As ST passed him he told her to raise her hand or
hit the panic button. CT said to me that ST was very nervous
I walked with him stating that this was a
big test for ST as they were spread out. ST sent them to the
pylon in the s-e corner to form 3 lines. ST jogged out with
Sa. CT joined them briefly to explain that they should try
for very good times. ST jogged to the 70m mark
MN: I went with her.

ST called out the starting commands from the 70m finish.
There were 7 run thrus. ST read out the time for each runner
who went to timer to have it written on their hands. Sa
asked ST if they should go back to start she said yes asking
Sa if he was the first one (run thru) and would he tell her
when he was first again so they could change to 200m. When
SB came again she asked if they were the first ones then she
jogged to the 200m marker.

MN: I moved too

The first runners thru at 200m complained that they had not
ran 70m. ST continued to give the starting commands and had
runners become timers then go back to the start. ST had to
keep reminding Sa to keep to the sides so as not to interfere
with the runners. Sa complained of sprained ankle. She did
it yesterday. After the fifth 200m CT came down to remind
ST that some Sa had not done 70m. ST said she knew. CT
explained to ST that having Sa go back and forth to the
start was confusing because she wouldn’t know who was left
and who is ready to move on.

MN: changed tape

ST checked how many still to run. She gave praise to Sa,L.
CT enquired if everyone had run. Sa said yes because they
were all sitting down. Sa had a second run. ST commented
that he was just running for the heck of it. CT
encouraged Ss to run and set a record. ST was busy checking
that timers were watching the runners. After Sb had ran ST
sent Sg to run 70m and they jogged up. ST hustled Ss to
go to the softball equipment but told them she had not
said to get bats. Ss were to listen up. They could talk
after class. ST introduced overarm throw stating that they
were to concentrate on opposition. ST checked that Ss knew
to throw with right hand meant to step with left foot. ST
demo-ed bringing hand back beyond ear with elbow out and
threw to (CT) with demo of follow thru. ST asked Ss what
(CT) did wrong. Ss replied that he stepped with his left
foot (wrong foot in this instance). (CT) would also make
sure that he had his glove on. Which hand would (CT) have
his glove on? Left so throw with right. He will have mit
out to receive the ball. ST repeated ear and elbow positions.
CT asked what if the ball was low. ST lead discussion of
what CT did - turned glove down. ST indicated that it was
time to practice. Ss moved to gloves but ST stopped them
to give directions about what they were doing - getting a
partner first. CT checked to see if there were enough balls.
Ss were to begin tossing to self. ST asked CT about number
of balls then told Ss to partner up. ST went to the Sb
while Sg went to CT. ST went to Ss checking gloves. ST
called to group to tell partners to check which foot to use.
CT and ST both moved around the group giving feedback. ST
brought Sb closer together. ST told Sg to stop and put right
foot forward. Sg threw. ST praised good throw. ST walked
to the center of the group looking towards the Sb and
encouraged them to get closer together by 'scooting in'.
At 9:37am ST called 'stop' twice and called everybody to
hustle in to her. They did so quickly and she praised them.
ST de-ed fielding a ground ball which she called 'charging'
Run on the ball, go down on one knee to protect the ball.
Ss resumed practising. ST sent Sb(green/cap) to outside of
group so they would not be working at right angles to
another pair. ST praised 'good charging' and again
encouraged Sb to 'scoot in' Sg asked if they could throw the
ball saying they were 'no good at this'. ST replied that was
why they needed the practice. ST was crouched near a pair of
Sg. At 10:03am ST called the boys to come in to her. Sg
continued to practice. Sg in a group talked and pointed to
ST recorded times for 70m and 200m on the 5 Star cards. SB stood around ST then SB moved away to practice followed by another 25B. SB(red) was last SB. At 10:06am ST called all the SG in to her and all the SB went to practice. CT was talking to another male teacher. ST checked which SG had not done the 70m. At 10:07am and SB was hit on the head and ST went to him followed by the SG. CT came over to speak to me about the tape as I had the microphone tape as well. At 10:11am ST called SS in. Some SG were running and timing their 70m. SS argued with ST as to whether or not it was recess time. CT came over. At 10:13am ST told SS to take gloves and balls to the curb. ST asked SG time for recess. At 10:15am ST asked if woman walking across the playground was their teacher and sent them to run to her. CT came to talk to ST ‘about a couple of things’.

Notes: I stood behind ST and CT as they talked

CT when you have the scoring see the kids did a lot today
ST right
CT so that’s one of the reasons I try to do a different activity if you’re going to do something like that
ST see I was thinking perhaps I should um zigzag
CT something that doesn’t take too much management
ST the zigzag might take a little bit much
CT too much organization
CT organization whereas you the pepper drill they could
ST just score and do that little partner activity plus and get ready for next week so that would help them (inaudible) I use a lot of hustles and a lot of feedback try (inaudible) try and use feedback a little more use more behavioral interactions it’s a lot harder outside
CT yeah
CT everybody spread out some teachers would not leave a group of kids down there our kids have pretty good
ST yeah
CT management skills two classes didn’t have any problems
CT try to emphasize that when you are doing take a couple of people who might have a tendency to be disruptive
ST: uh ha
CT: say well okay you make sure that the people on the
starting line calm down the rest of the line that'll
help a lot your explanation of throwing techniques
was excellent good job on that okay I guess we'll
go and do the sixth grade
ST: okay

MN: when we arrived in the gym sixth grade were already at the door

LESSON 3 grade 6 Wo

ST began this lesson with 25 jj. ST picked up 5 Star sheets
from storage box, 15x-1 'Keep your legs straight'. Run fast
in place. Hustle in to ST.
ST way to hustle in good job
Ss what do we get
ST what do we get
ST spoke to Sb who had his head own and was holding his
forehead. He was inaudible. ST demo-ed arm action for 70m.
ST described pylon at starting line and her role as timer
at the finishing line. Ss were sent outside to form 3 lines
at the pylons. Any questions? Everybody hustle over to the
pylon. Ss left the gym via the s-e door. On the way out ST
spoke to Sb saying how good he was getting at lacrosse. ST
hustled Ss to pylon.

MN: switched tape off while I walked across. Missed first remarks.

CT was not in sight. ST explained starting procedure then
jogged to 70m cone.

MN: I went with her.

ST timed the first 3Sb who then wrote on hands and did so
for second runners who did likewise for third group. Each
set od runners became writers for the next group. ST went to
send first Sb back then said 'no' they were to stay here.
ST kept reminding Ss to keep to side to give runners room.
Sg(red) walked down from start to ST who asked her what was
wrong. Sg(red) pointed to her foot. ST told Sg(red) just to
try it. Sb ran around screaming that Sg was a cheat. ST asked if that group of 3 would like to run again. At 10:48am, ST asked who was the last person across. The Sb (scream) asked to run again. Ss were crowding around ST and writers for times. Sb pushed each over as they ran. ST asked who was across then second, then third.

In this class ST was not calling the times but trying to sort out the order in which they crossed the line then tell them the times for first, second and third.

3Ss went back for a second attempt. Ss asked CT about me and he explained that he was doing a study on (ST) and that she was watching everyone with blue shirts (which Sb was wearing). Sb asked about CT who also had a blue shirt. ST told Ss to move, runners more room. Good hustle. CT shook hand of runner. Sb (pink) pushed girl downhill. Sg was level with him at 70m.

ST sent them up to run again and not to push. CT ran up to the start with them holding the Sg's hand. Sb (pink) beat the Sg this time and finished with a flip. CT praised the Sg. Ss went back to the start and ST went to the 200m looking for the pens as she went. CT found one in the grass. ST talked with Sg who would not/could not run. ST told her that the times were needed. At 10:49am 3Sb ran 200m.

Twisting and turning as they ran. ST put them in charge of getting all the times down. Four Ss ran in the next heat. ST encouraged writers to listen for the time. In the second heat ST gave out the times 40 flat for third, 41.7 each.

Third heat were told they did 'good job, nice job'. First was 29.75, 'you were first over', second over was 33.7, second was 34. Guys were asked to listen up for times.

ST had 3 watches. CT was the starter. ST continually reminded Ss to move to the side. Sb dived over the line. ST praised guys for running well. 4 Sg ran. Ss were sitting at the side talking and whistling into their hands. After last 4Ss started CT walked towards the softball. ST gave the times as 40 flat for third, 'good job', did not give first two. Next heat first one had 37.39, second place had 39.43, third was 40 flat. ST checked to see that everybody had a time.

At 10:49 she sent 2 Sg who didn't run 70m to do so to time each other. The rest of the Ss were hustled to softball. 4Sb
picked up 5th Sbby arms and legs. ST told them to hustle.
Sb, T, went over the climbing apparatus. ST urged him to
‘come on’. ST turned to jog to softball and T went over
another piece of equipment and came down the slide. Most Ss
were at the softball. ST told them to put the bats and balls
down and ‘scoot on in’. ST asked if she was speaking Greek.
ST began to demo throwing technique then asked Sb, J, (from
last week) to get a mit and join her. ST threatened to beat
the whole group. ST went thru the same points about throwing
as with the previous group.

MN: out of tapes

Ss were sent off to work in pairs. ST walked around
carrying red bat. She stopped to check a mit. Sb near me
overthrew and almost hit me. Sb commented to thrower that
he thought he knew how to throw. Sb called me Mrs Rose. ST
pushed Sb with red bat. 3Sg were sitting on the curb. ST
told Sb to throw to the mit or he would ‘get one of these’
as she extended the red bat towards him. To 3Sg ST asked
what the problem was and suggested that they could do it
by tossing and not using the ankle. ST sent one Sg to do
her a favour to collect the spare balls in the carpark.
Sb spoke to me about the batter but I did not understand
him. At 11:13am ST hustled Ss in telling them that she was
not real pleased with their behavior. ST then introduced the
grounder by asking the Ss how they would get it. ST corrected
the answer saying that they would go down on one leg. ST
demo-ed position. The school buses drove thru the carpark.
CT spoke to the 3 nonparticipants and sent 2 over to join
the rest of the class. ST began to explain what was different
but did not complete her explanation. She demo-ed a shovel
coop. Ss were told to get partners and throw ground balls
with them. CT talked with ST and looked at Sg limping (one of
3Sg) ST looked at her wrist watch. CT said if they are out
here they can work. ST sent them to work together. Sb, K,
said he hated baseball. ST asked him didn’t he want to impress
her. ST went over to Sb not wearing a mit. Sb said he got hit
in the eye. ST walked to him but he picked up his glove and
went back to his partner. ST walked around the whole group.
K kicked the ball. ST asked him if that was how he threw
At 11:09am ST called Ss in. K was talking about fire department. ST told class to listen up then directed them to take bat, ball, and glove into the gym. K was asked to collect the sacks for (ST) and carry them in. An Sb complained that they did not use the bats. ST had a sword fight with the bats on the way in. ST guided K over the curb as the box of sacks came up to his chin. The tables were already set up in the gym for lunch. ST directed Ss to sit at the tables then called them to give their times for the 70m and 200m. Ss put the gear with the rest lying outside the equipment store. The sixth grade teacher was in the gym too. As Ss finished with ST teacher directed them back to their classroom with instructions to be quiet as other grades were doing tests. Ss were told what work to do in the classroom. At 11:14am the primary grades came into the gym and went to the lunch tables. By 11:18am all Ss were finished. ST leaned over the table sorting the cards.

The following is a combination of summary and transcription as the primary grades were in the gym and Ss came to the PE office.

ST blew that one I forgot to do the cards
CT did you get the cards well was it like you thought
ST the sixth grade are too wound up
CT well how about your perceptions how was it that was first time outside
ST you don’t I didn’t feel as if I had as much control
CT they’re spread all over the place aren’t they
ST what about tomorrow will you do anything different
CT tomorrow
ST ah it definitely worked better keeping them busy all the time
CT yeah
ST I’m going to have to get more hustles
CT well here’s some things on planning I just said
CT well tomorrow I’m not going to help you set up
ST okay you can so when you first get in get some girls set some stuff you know you could have set it
ST it all in here you know for your first class like I did but you need your basic set up out there with
your cones for the races and then when you're thru
move back in the kids can do a lot
they can bring it in
they can bring it in your behavioral interactions
we talked about that last week try to get a lot then
on hustles more hustles keeps the group moving along
injuries to the girls

those kids are just lazy you know laziness in all of us motivate them to take part push becomes a shove
they'll be more lazy and ah

you can always say why don't you go and explain this to (school principal)

see if there's a place in the blackbook in the office
so that takes care of the discipline motivation
remember see what it did for (Sb, H,) and (Sg, N)
who tried a little bit harder out there I went up to them at that end you might be close to a record and
all of a sudden those two kids there's a couple of more kids you can look up here on the record board
and see what the record is

the kids are still trying to beat the person they run with it's so ingrained in the society that you have to beat them but the full philosophy of 5 Star is to improve yourself

so just keep getting that and say right before lunch is a good time if you see a kid or kids who have done it exceptionally well you can always go in and announce it on the PA for those intermediate classrooms interrupt at a period of time when the classroom's ready to break for lunch you're not interrupting a classroom say things like you guys are really improving your class ought to think about having you as field day captains everybody wants to be a field day captain so that's something to be said about that well other than that you're teaching them the overhand throw was excellent just a little
organizational thing tomorrow we'll stick that golf
counter out again here I found it here here
and let's go on behavioral interactions
okay
first class
I wrote this out (shows CT her lesson plan)
extcept I didn't get to the games
(reading) okay that's fine always have a couple of
games in there in case you get done we got a lot done
yeah
with the interaction stuff
hmm
I think it's working pretty good doing track and field
and softball at the same time compared to what has
happened in the past and we talked about when you're
out there doing the scores (inaudible)
clapped day one
(haught)
here's what we're doing for the field day so how this
works we'll pick two girl captains and two boy
captains from each class at least we'll tell them
about it in early May
hmm
in this column the boys can select two events their
names can go in this section two times and so
there's 3 events they can go in and on the back is
the field events and they pick one from each column
that way they can win there's five ribbons there's
so many events that it's very difficult to get away
from there without at least two or three ribbons
when do they sign up for these
well we'll go probably the first of May giving them
so they've had a chance to do some of the activities
hm mm
see like this activity here like some of these we
won't practice ah the one lap relay we won't do that
but they'll probably want to practice the shuttle
hurdle relay a few times javelin shot put and things
like we'll practice the egg on the spoon we won't
practice those sort of events this is a two man fire-
man carry this event there's a couple of kids who
CT are really into that and find some way possible to help I think there's something for everybody in that field day

ST hm mm

CT look thru these I'll order the ribbons the PTA pays for the ribbons each year

ST hh alrighty sounds good

CT okay

ST do you want me I won't have to make up a whole new lesson plan

CT no that's fine

ST okay

CT (inaudible)

ST do you want a copy of the unit plan

CT yeah a copy of that's fine why don't you get a couple to put those balls away 'cos the kids kids will take it out at recess

ST right

CT how did you decide which events you would practice and which you would not

CT some we do not want them to practice egg and spoon frisbee throw

Res so the ones they're

CT frisbee they've had in class we played some games in fall (inaudible)

Res so the ones they are practising are the standard ones and the other what

Ss came to PE office door to talk to CT

MN: this post-lesson conference is on microcassette 14 April, side 1.
Dear Diary....

Today I really felt that I had the whole system going well. I kept up close to ST and held the tape towards her and seem to have very clear recordings. I could not get the second tape to work so did not have her wear one but I do have reservations about it any way as she has to jog between stations and the tape may not be robust enough or may even get in her way. I had no hesitation about getting in close to these Ss since they are the ones I observed almost weekly in winter quarter even at the swimming pool. They look at me and grin, some came and asked what I was doing and some fifth grade boys had a yell into the tape. I cannot see any evidence of them being restricted by my presence or my presence affecting them or their confidentiality. Sure names are yelled out but there are so many Ss with the same names that you would really have to sit with all the class rosters and sort them out. Surnames have not been used that I am aware of. (shocking English, Lynn, but you're not Pom so you can use Aussie English!)

CT opened up a bit and chatted about his reservations and concerns about what he asks of STs. I tried to be neutral but found it difficult since he was spot on to my topic and I wanted more details from him so I entered into the conversation and gave my thoughts to get his reactions. This is all on tape (Lesson 2).

1. I really don’t have to ask ST what she is going to do each day or each lesson since CT does this as soon as ST arrives at school. He continually tells her that she can make changes or do things her way. Post-lesson I took to walking in with ST to ask questions. The conferences before she leaves each day are good i.e. in line with my questions, but I do have the distinct impression that ST wants to be out of the elementary school as quickly as possible and get to the secondary school.

2. Big task still to be done is to diagram the outside area and to photograph it with photos keyed to the diagram. Will go very early one morning - when it warms up again, or do during a planning period when ST sits at her desk and writes.

3. I need to establish a time line of when CT tells Ss and ST about various events and activities. Sometimes when he introduces an
event to the Ss it almost seems as if he is letting ST know as well and that she had better be thinking about it. This has lead me to wonder what ST imagines the Field Days to be - must question her about that when we have time to chat.

4. With regard to the time line I need to look at Tinning's tasks again and see if he plotted time relationships as to when they were introduced and when they were executed. Also if all tasks introduced were in fact carried out. No he did not.

5. Decision making can be plotted as a schema in a tree diagram like so.

![Diagram](image)

6. I must catch up with ST's paperwork. She copied her unit plan for CT today and has given a copy to US. I will wait till US returns her's to see what comments are written on it. I had a brief look at materials in ST's file - no journal. Must ask again.

Discussing photocopying with CT today and he showed me how to use the school machine. I offered reimbursement so must make plans for that. CT shrugged it off but I cannot sponge on the school. I think I will get Mum to bring over some Tee Trainers from Barry Illingworth when she comes as that seems to be one piece of equipment that the school does not have (they have everything else) not were there any in the trade display at AAHPERD.

7. CT changes today from ST the basketball star to ST the softball coach. This I find one of the most interesting side issues of the study and will be an important part of my final interviews with both CT and ST.

8. ST did not attend PCDL briefing. No audio but did not tape record - ST not present. Each ST provided info on schools + commented on each others schools presentations.
APPENDIX P

EXTRACT FROM STUDENT TEACHER'S JOURNAL
April 16
Class was OK today, not a whole lot to write about.

April 17
(Bill) was not in class, so I did not teach today.

April 18
(Bill) & I talked about how we could have cut down on the transition time b/w the 70m & 200m. We could have run the 200m first then the 70m next. I think this would definitely cut down on the time.

April 21
This week we're doing shot put and softball. There is a grid, the kids mark down their scores on their hands & record at the end of class. We did a lead up game to softball -- Bat 4. Every person on the team bats. The runner tries to beat the ball around before it reaches home. There are 2 bases and the batter can bat as hard a he/she wants. There were 2 games being played to cut down on the waiting time. Also, they used a "T".

April 24
As the kids seemed to get a little bored, I brought the teams together & got 1 game going. They seemed to like this. It made the game a little more competitive.

April 25
When I split the kids up today, just in two teams (Michele) felt that there was too much waiting time even though the kids were enjoying the game.

April 28
We started the javelin throw today. The first lesson was a little shaky so the second lesson (Bill) helped me out and gave me some suggestions. I needed to give more hustles to keep the students moving along quicker. The skill level was low just because it is something people don't do all of the time.

April 29
The softball game went well. Half of the kids played softball, a regular game off of the "T". And also the other half ran the 800m. I kept an eye on the game while the kids were running. I also set the game close to the track.
April 30
The class on Tues. was also a very bad day for me. I was depressed because I did not feel the job I was doing was adequate according to some other's standards. Today was a little better but not much. I need to get my confidence up.

May 1
Today was a little better. (Bill's) still telling me to give more behavior interactions and hustles. I need to keep motivating the students so they understand the importance of field day.
APPENDIX G

FIRST AND FINAL INTERVIEW SCHEDULES FOR THE STUDENT TEACHER,
COOPERATING TEACHER, AND UNIVERSITY SUPERVISOR
Thank you for setting aside some time for this interview. With your permission I would like to tape record this interview simply because I have found in previous research that I was not able to write quickly enough to keep up with all that was being said.

1. Have you finished your finals?

2. How were they?

You are now at a really interesting point of your undergraduate career and in this interview this morning I would like to review how you reached this point, and consider where you are going from here.

3. How does it feel to have completed your coursework and only student teaching to finish your degree?

4. What degree will you get?

5. This is where I am still ignorant about the university program, as I understand it this is a four year degree, is that correct?

6. Can you give me an overview of what you studied in each of the four years?

7. What skills and knowledge do you consider you possess?

8. Let's concentrate specifically on your teacher training courses, you began these with Introductory Core

   -- when?
   -- who taught it?
   -- what was its main message?

9. Next on the agenda was Secondary Core about which I know a little bit. Secondary Core was my first experience in a middle school, we do not have that division at home. Refresh my memory about what you did in Secondary Core both in classes at university, and at your middle school.

10. That was winter quarter 1985, so you would have followed it with Elementary Core in spring quarter. Which schools did you do that?

11. If I had been your supervisor in Elementary core what sort of things would I have observed you doing?
12. You also had classes at university for Elementary Core. I was unable to attend them so you will have to fill me in on what content was covered in them.

13. Have you been involved in any teaching or coaching experiences since the core program? Can you elaborate?

14. Have you visited your schools for student teaching yet?

15. What sort of things did your cooperating teachers outline to you by way of the school programs? Their expectations?

16. What will you be teaching? What do you intend to focus on in the first few days in the schools?

17. Will you be involved in anything else in the schools?

18. Were the two briefing sessions useful in preparing you for your visit to the schools? Was there anything in particular that you and the other physical education majors chatted about as you moved between the two briefings?

19. Let's move ahead now to almost the end of spring quarter, and imagine what you expect to be like as a teacher...

20. How have you come to this description of a physical education teacher?
   -- university program
   -- own school days
   -- how would you compare these schools to the ones you attended?

21. What decided you on physical education as your major?

22. How old are you?

23. Let's see if I can paint an accurate pen portrait of... You went to school at... At university you have... Now you are really to student teach...

24. Is there anything I have omitted?

25. Are there any questions you would like to ask me?
Thank you for sharing your student teaching experience with me, and for agreeing to one more interview. The purpose of this interview is to pull all the sources of information together. As on previous occasions you are free to determine the limits of the questions, and your answers. I would like, as usual, to tape the interview. Thanks.

1. During your elementary student teaching you taught softball and track and field to the intermediate grades, and ball skills to the primary grades. You also had experience with the field days, and adventure games.
   -- what was the high spot of all of these?
   -- what was the low spot?

2. If you had to do it all over again what changes would you make?

3. How did you learn about
   -- the school in general?
   -- physical education in particular?
   -- how did (cooperating teacher) help you learn?
   -- how did (university supervisor) help you learn?
   -- did you feel there was anything else you should have been taught about the school?

4. How is your philosophy of teaching the same/different from what you think are (cooperating teacher's) and (university supervisor's) philosophies?

5. If next week you found yourself as a cooperating teacher, how would you teach your student teacher about the school?

6. If you were a university supervisor what would you expect of the student teacher you were supervising?

7. Let's pretend the observation schedule is new to me. Can you explain how it is used?
   -- how and when did you consult it?
   -- how did you use the video taken by (university supervisor)?

8. Describe your relationships with
   -- your cooperating teacher
   -- your university supervisor
   -- the students
9. Do you envisage teaching in an elementary setting?

10. Let's assume that you do obtain a position as an elementary specialist, how would you teach?

   -- would this be the same or different from (cooperating teacher)?

11. How easy or difficult was it to implement the suggestions from

   -- (cooperating teacher)?
   -- (university supervisor)?

12. To what extent were you able to interact with the other teachers in the school?

13. On one occasion you sent two boys to the principal.

   -- had this been arranged in advance?
   -- what prior contact did you have with the principal?
   -- did you have any follow up with the principal afterwards?
   -- was sending the boys to the principal an effective way to deal with them? Would you do it again?

14. What do you think

   -- were your strongest points as a teacher?
   -- your weakest points as a teacher?

15. You were an extremely busy person during your student teaching experience with teaching in two schools, coaching, studying, public speaking, playing softball, and your social life.

   -- did such a heavy schedule impact on your teaching?
   -- did your teaching have any impact on these activities?
   -- does coaching pay enough for you to live on (financial support)?

16. (Cooperating teacher) used your status as a basketball player in his introduction of you to classes. Did this help or hinder you as a teacher in that school?
17. You also experienced some health problems

   -- did student teaching contribute to these in any way?

   -- did you happen to have another migraine attack during the final field day?

   -- as far as I am aware you did not tell (cooperating teacher) and (university supervisor) until afterwards about your health problems. Why/why not?

   -- you were absent on two occasions. Were these due to your health problems, or other matters?

   -- did you ever feel like quitting when you were not well?

18. During student teaching, and in your journal, both you and (cooperating teacher) used some expressions that I would like you to clarify of me

   -- the kids were funny

   -- the kids crack me up

   -- wild

   -- (cooperating teacher) often aid "you're on a roll"

   -- (cooperating teacher) referred often to a "bag of tricks". What was it?

   -- (cooperating teacher) often said "don't give anything away". What?

   -- you said "piece of cake"

19. If student teaching was a two quarter experience and you still had another quarter to go, what would you specifically concentrate upon?

   OR, you know some people who will be student teaching in fall quarter, what advice would you have for them

   -- about student teaching in general?

   -- your elementary school in particular?

20. If you were the PEMD coordinator of student teachers, would you change student teaching in any way? Why/why not? (get to combination of elementary and secondary)

21. What were the surprises of the experience?

   -- what were the disappointments of the experience?

22. (Cooperating teacher) observed you teach, and he also mentioned that he watched thru a window. Did his presence or absence affect your teaching?
23. Were you conscious of my presence?
   -- did my presence affect either your, or the students, or even
      (cooperating teacher) and (university supervisor)?
   -- were you aware of the audiotaping?

24. You have applied for a teaching and coaching position in the
    school district. Would you recommend to the people who are
    going to student teaching fall quarter that they seek placement
    in the school district in which type want to obtain a position?

25. What is your current situation in your research for a job?

26. Do you want to teach or coach or both?

27. Is the (student teacher) I am interviewing now different from
    (student teacher) I interviewed 3 months ago?

28. Is there anything else I should know?

29. Any questions you would like to ask me?

30. Would you like to write a summary of your role in this study to
    use in the future?

31. Can I collect your journal, and lesson plans etc. from you?

Congratulations on your graduation.
Thank you for setting aside time this morning for this interview. I realize that you are busy so appreciate your cooperation.

With your permission I would like to tape-record our discussion. I have in previous research that I am simply not able to write fast enough to keep up with the talk.

The focus of the interview is to obtain a good overview of the school and the physical education program so I can begin to understand the situation in which the student teacher will be teaching in the spring quarter.

I have been visiting the school now for one quarter but on reflection I know little about it except the carpark, entrance, office and gym so perhaps we could begin with the history of the school.

1. The school looks new to me, when did it open?
2. Have you been here all the time?
3. What is the current enrollment?
4. Where do the students come from?
5. How many teachers are there?
   -- teachers' aides?
   -- specialist teachers?
6. Can you describe for me the school philosophy?
7. What is the basic structure (class organization) and building design of the school?
8. How does physical education fit into the school philosophy and structure?
9. How much time is allocated to physical education?
10. What terms would you use to describe the physical education curriculum?
11. How are curriculum decisions made in physical education?
12. You have a range and variety of equipment. Can you give me some insights into how you have built it up since you have been here?

13. For a moment let's change the focus a little and suppose that I am a student here. What would I do in your physical education lessons? Lead me thru a typical physical education lesson from the time my classroom teacher announces physical education is next, into the gym, the activities, then back to the classroom.

14. Let me see if I can describe to you the specific routines and rules in physical education lessons. Have I got it all?

15. Can you identify any events/personalities in your teacher training/experience which have brought you to your current approach?

16. What are your qualifications? Age?

17. We've been talking about the school and its physical education program, before we move onto to talk about student teachers is there anything else you would like to tell me about the school, or the physical education program?

18. (Student teacher) begins here on 31 March. For the first week or so, the university suggests that her focus be observing her cooperating teacher. How will you direct her at this stage?

19. If you were the student teacher, what would you be trying to learn by observing?

20. Is there any way to determine what she actually learns during that observation phase?

21. After the observation phase she is to be eased into teaching, which class will you select for her to teach first?

22. What will guide your selection of this class?

23. How will her responsibilities be increased until she has a full load?

24. Let's swap roles again and imagine that you are the student teacher. What would you see your cooperating teacher (you) doing as I teach a class?

25. Do you have any special routines that you follow after the student teacher has worked with a class such as talking with her?
26. What do you consider to be the function of the cooperating teacher in training the student teacher.

27. From my experience here this quarter, I have the feeling that you have worked with student teachers for some time, without a name paint a picture of a first class student teacher.

28. What is a student teacher at the other end of the continuum like?

29. At the end of spring quarter what should (student teacher) be able to do?

30. Time for a recap, as I understand you...

31. Your turn, do you have any questions to ask me?
Thank you for allowing me to be a constant presence in your school, and for agreeing to one more interview.

The purpose of this interview is to pull all the pieces together. As on previous occasions you are free to determine the boundaries of the questions, and your answers.

I would like, as usual, to tape this interview. Thank you.

1. You have had considerable experience as a cooperating teacher. How has this student teacher been the same or different in general terms from others you have supervised?
   -- what were her particular strengths?
   -- what were her particular weaknesses?

2. If she still had another quarter of student teaching to complete with you what focus would you give her? Why?

3. How responsive is she to advice? Was she able to implement the suggestions you and (university supervisor) made about her teaching?

4. Is she ready to assume the responsibilities of a full time teacher?
   -- should she consider seeking equipment as an elementary specialist?
   -- what would you envisage her doing in 12 months time? As a teacher? As a coach?

5. How would you describe her relationship with
   -- you?
   -- students?
   -- university supervisor?
   -- other school staff including the principal?
   -- I understand from (university supervisor) that you had several lengthy discussion out-of-school about (student teacher)? Were you able to agree?
6. During this quarter (student teacher) was teaching in two settings, coaching a high school team, studying, playing her own sport, speaking at school banquets, and trying to have some social life. To what extent did these activities

-- compliment each other?
-- detract from her teaching?
-- would you encourage/allow your next student teacher to take on such a load?
-- there were several weeks in the middle of the quarter when (student teacher) seemed to have considerable difficulty, and appeared to be somewhat sharper with the students. Can you account for this?
-- (student teacher) also had several absences. Did she ever give you any explanations for these other than the 'phone calls to say that she would not be in that day?

7. During Week 1 when you introduced her to the students you usually included reference to her status as a college sports star.

-- was this to help her or the students?
-- to what extent did her "celebrity" status enhance/detract from her as a student teacher?
-- at one stage you also suggested that she draw on her status as high school softball coach but this was never pursued. Can you elaborate for me?

8. You have some verbal expressions which you used frequently with (student teacher). Could you please elaborate on these for me to make sure that I have the correct meaning you attach to them.

-- after lessons that proceeded particularly well you would say to her that she was "on a roll." What did you mean?
-- you often suggested that she ought to have a "bag of tricks". What exactly do you consider to be a "bag of tricks"?
-- (student teacher) should "never give anything away"?
-- (student teacher) said "piece of cake"
-- (student teacher) said "time out" to end activities as well as for discipline. Did this confuse the students at all?

9. If the school district decided that there should be two physical education specialists in this school, would you be prepared to have (student teacher) as the second specialist?
10. How did you learn to be a cooperating teacher?

-- sometimes you used the observation schedule, other times you gave (student teacher) the golf counter, and yet other times you either spoke to her during or after lessons. Was there any particular way in which you determined which of these you would use?

-- how did you determine the number of behavioral interactions (student teacher) should aim for, or even the number of names she was to learn in Weeks 1 and 2?

-- several times you remarked to me that it was not always easy to be a cooperating teacher. What makes the work of a cooperating teacher easy/difficult? Was (student teacher) of particular concern to you.

11. What were the surprises of the experience?

12. What were the disappointments?

13. Did (student teacher) perform better as a teacher when you were physically present, or when you were less obvious such as watching thru a window?

14. Were you conscious of my presence/audiotaping? Did my presence appear to affect

-- (student teacher)?
-- students?
-- you?
-- (university supervisor)?
-- other staff members?

15. Monday mornings seemed to be particularly difficult for (student teacher), and on more than one occasion she taught the first lesson then you took the second lesson to give her some guidance. Did there appear to be any specific reason for her difficulties?

-- the classes seemed to be much better behaved in the lessons immediately prior to the field days. Was the closeness of the field days a possible reason for this, or did you/classroom teachers speak to the students and tell them to behave?

16. I was surprised at how quickly you gave her a full teaching load, like the end of Week 1. Given the time over again, would you still do this?

17. Was there any particular reason for the order in which the field days were conducted?
18. How is (student teacher) of Week 10 of student teaching the same or different from (student teacher) of Week 1? In the interview before you meet (student teacher) you spoke of a "positive self-image". What exactly were you hoping for (student teacher) to achieve? Did /not she achieve a "positive self-image"?

19. What has (student teacher) contributed to the school?

20. There were several changes to the physical education schedule for the term. For example, changes in events for the five Star (omission of discuss), why?

   -- were you happy with the combination of track and field, and softball?
   -- is there anything else I need to know in order to write an accurate report of this student teaching experience?

21. Do you have any questions you would like to ask me?

22. Would you like to read the report? Will you be available over summer?

Thank you for your help.
Thank you for setting aside some time for this interview. I realize that you are busy so appreciate your cooperation.

With your permission I would like to tape-record our discussion. I have found in previous research that I am simply not able to write fast enough to keep up with the talk.

1. What is your position at the university?
2. How does supervision of student teachers fit into that?
3. What training has the university given you to supervise its student teachers?
4. For how long have you been supervising student teachers?
5. Have you been involved with any other sections of the program, especially the core units?
6. Have you supervised (student teacher) before in any other aspects of the program?
7. Can you outline for me how you carry out a supervision visit?
8. How many times do you plan to see (student teacher) teach?
9. Do you have any special plans or requirements for (student teacher)?
10. What are your qualifications?
11. How much teaching experience have you had?
12. Let me recap... 
13. Are there any questions you wish to ask me?
Thank you for allowing me to be present during your conferences with (student teacher), and for agreeing to one more interview.

The purpose of this interview is to pull all the pieces together. As on previous occasions you are free to determine the boundaries of the questions, and your answers.

I would like, as usual, to tape this interview. Thank you.

1. You have had considerable experiences as a university supervisor. How has this student teacher been the same or different in general terms from others you have supervised?
   -- what are her particular strengths?
   -- what are her particular weaknesses?
   -- what would you envisage her doing in 12 months time? As a teacher? As a coach?

2. If she still had another quarter of student teaching to complete with you, what focus would you give her? Why?

3. How responsive is she to advice? Was she able to implement the suggestions you and (cooperating teacher) made about her teaching?

4. Is she ready to assume the responsibilities of a full time teacher? Should she consider seeking employment as an elementary specialist?

5. How would you describe her relationship with
   -- you?
   -- students?
   -- (cooperating teacher)?
   -- other staff including the principal?
   -- you and (cooperating teacher) meet several times out-of-school and discussed (student teacher). Was this because of particular concerns or ????
6. During this quarter (student teacher) was teaching in two settings, coaching a high school team, studying, playing her own sport, speaking at school banquet, and trying to have some social life. To what extent did these activities

--- compliment each other?
--- detract from her teaching?
--- would you encourage/allow your next student teacher to take on such a load?
--- there were several weeks in the middle of the quarter when (student teacher) seemed to have considerable difficulty, and appeared to be somewhat sharper with the students. Can you account for this?
--- (student teacher) had several absences. Did she ever give you any explanations for these other than phone calls to say that she would not be in that day?
--- during your conference in Week 9 (student teacher) mentioned some health problems earlier in the quarter. When did you become aware of her health problems? What was the nature of them? Do you think they influenced her performance as a teacher?

7. If the school district decided that there should be two physical education specialists in this school would you be prepared to recommend (student teacher) as the second specialist?

8. How did you learn to be a university supervisor?

--- sometimes you used the observation schedule, and yet other times you spoke to her after lessons. Was there any particular way in which you determined which of these you would use? You also videoed her in Week 7. How did you expect her to use the video? Was it successful or not?
--- in your discussions of the data with (student teacher) you spoke of 10 second intervals. Can you clarify for me how you determined an interval?
--- was it easy to be a university supervisor? What makes the work of a university supervisor easy/difficult? Was (student teacher) of particular concern to you?

9. What were the surprises of the experience?

10. What were the disappointments?
11. Were you conscious of my presence/audiotaping? Did my presence appear to affect
   -- (student teacher)?
   -- students?
   -- you?
   -- (cooperating teacher)?

12. I was surprised at how quickly she was given a full teaching load, like the end of Week 1. Given the time over again would you recommend this?

13. How is (student teacher) of Week 10 of student teaching the same or different from (student teacher) of Week 1?

14. Do you have any questions you would like to ask me?

15. Would you like to read the report?

   In particular I would like to thank you for taping the conferences you conducted at the high school. These tapes have given me an extra data source against which to triangulate the data I collected myself. May I also copy (student teacher's) resume given to you at the beginning of the quarter.

   Thank you.
APPENDIX H

A SAMPLE OF A SINGLE WRITTEN RECORD

USED IN THE DATA ANALYSIS
BEHAVIORAL INTERACTIONS

22 April Day 17 post lesson 3 FN 275, 766 CT→ST: how many
   ST  not real accurate
   CT  do you feel you're picking up alright
   ST  yeah I make more of them
   CT  does it change behavior
   ST  yeah
   -> nice to tell a kid they're doing a good job following directions

23 April Day 18 planning period FN 293, 509 CT-ST set up for 2 g & K
   CT  have homes & some kind of things & real important to use your behavioral interactions
   -- lot different with older kids, have to use some finesse, they see right thru you

Cross reference:
never give anything away

FN 293, 531 CT-ST: my (CT) reactions in terms of behavior & skill feedback are probably 50% higher with the little kids than the big kids

1 May ST JOURNAL: CT's telling me to give more behavioral interactions

6 May Day 27 post lesson 1 FN 476, 357 CT-ST: mostly negative
   Cross reference never give anything away

FN 476, 371 CT-ST: if I keep giving negative interactions all the time I kinda get upset it doesn't make it much fun for me

Cross reference
CT's frame of reference
7 May Day 28 prelesson 1 FN 493, 060 CT-ST: see if we can get 20 behavioral interactions per class first two those 2 & the second grade this morning & 20 feedback statements

5 June CT I 52, 905 CT... just arbitrary 1 every 2 minutes

lesson 3 b FN 508, 541 CT at PE office and began using golf counter

FN 509, 589 CT-ST: you didn't give any feedback statements, your goal was to get 20 in each

FN 510, 619 CT-ST: let's still keep working on behavioral interactions you should have some of this down by now by six weeks
APPENDIX I

SAMPLE MEMO
WEEK 1 OF STUDENT TEACHING

During the first week of student teaching the physical education lessons for the intermediate grades (four to six) were shared between the school nurse and the physical education teacher, Bill. The nurse, with three or four parent helpers, used the first portion of each lesson to measure and record the student's blood pressure, height and weight. This freed Bill to attend to the student teacher. On Monday he used the "free" time to give the student teacher, Betty, an overview of the physical education program and her responsibilities, and a quick tour of the main corridors of the building telling her that she could explore these later in the week by herself. When the nurse had completed her measurements the students went to the gym for physical education.

Bill had set weekly objectives for the student teacher. During week one Betty was to learn the names of five students in each class. This task began while the students were at the blood pressure clinic in the main corridor. Betty would take a class roll from the physical education office and go to the corridor. She would either ask students to tell her their names, or read their names off their medical forms. On one occasion Betty substituted for a parent volunteer and measured blood pressure. Here she had an opportunity to interact with a group of five or six students. In physical education Betty used the student names she had learned earlier, or she continued to ask students. To monitor her progress Bill had one grade line up at the door. As they left the gym at the completion of their lesson Betty had to say the names to the student. If she did not know or made an error the students corrected her. She named seven students correctly. This was a fun activity as Bill had advised the students not to be too tough on Betty. If she did not answer within two or three seconds then they were to tell her their names. The students laughed when Betty did not know or made an incorrect guess.

The objective of the physical education lessons in week one was for the students to become proficient at timing. Bill showed them how to operate a stopwatch along with instructions in the safe handling of the watches which cost $30 each. The students practiced timing each other run through distances of approximately five then ten yards. The students worked in pairs of threes with one student timing, one running and the their member acting as a support, or starting blocks, for the runner. When the students ran over the longer distance Bill demonstrated the need for the timers to be
located at right angles to the finishing line. Bill would take the hand of a student and "race" at an exaggerated walking pace towards the finishing line. Just as he and his partner were about to cross the finishing line he would call to the timers still on the starting line, "who was the winner?" The students were encouraged to debate this until Bill invited them to move to the finishing line where they could see accurately. Bill always managed to win because he positioned his head over the finishing line while his partner's lead foot was about an inch behind the line. Bill would then arrange the timers in two groups at either end of the finishing line.

In addition, Bill, discussed with each class an article he had read claiming that 50 percent of American children could not run for 10 minutes. He would then set them to run around the black circle in the gym. After one minute Bill stopped the class and asked them how long they thought they had been running. The guesses ranged from one to three minutes. Bill told the students that they would be adding a minute or two each lesson until they could run 10 minutes at the Field Day later in the quarter.

With the classes on Monday Bill had some fun activities, too. The students had to time ten eye blinks, teen tongue-stickingouts, and ten jumping jacks. Finally, just prior to the class leaving the gym Bill demonstrated the triple jump which he wanted them to practice at home "but not in the living room" in preparation for week two.

Betty observed the first lesson after which Bill gave her more to do in each successive lesson. First she conducted the eye blinks, next lesson it was the warmup, then the triple jump, then the crouch start. On Friday she taught the complete lesson. Bill had eased her into teaching by giving her skills to demonstrate and teach. He kept charge of the management tasks like entering and leaving the gym. Betty coded Bill on Wednesday, he coded her on Friday. Already their relationship appears to be that of team teachers.
APPENDIX J

ELIGIBILITY AND RESPONSIBILITIES OF STUDENT TEACHERS, COOPERATING TEACHERS, AND UNIVERSITY SUPERVISORS OF THE MIDWESTERN UNIVERSITY
ELIGIBILITY REQUIREMENTS AND RESPONSIBILITIES

The student teacher:

The teacher training program culminates in the student teaching experience, and may be taken as soon as the student has completed all prerequisite experiences for the practicum quarter. In order for a student to be eligible to student teach, the following requirements must be met:

1. completion of at least 75% of the credit hours for the major area in which the student teaching is done;

2. attainment of a point-hour ratio of at least 2.25 in the teaching major and required professional courses; and

3. completion of prerequisite methods courses.

Although the university supervisors and cooperating teachers assume the major responsibility for directing the student teachers in their work, the student teachers must realize that they, too, must assume certain responsibilities if they are to derive full benefits from the experience of student teaching. The student teachers' role is two-fold in nature:

1. they are learners, studying the teaching-learning process; and

2. they are co-teachers whose instructional duties increase from day to day.

The student teachers' responsibilities include:

1. providing their cooperating teacher with pertinent background information;

2. conducting themselves in a manner befitting their position in the school and conforming to the mores and customs, such as dress, speech and personal habits found in the school and community.

3. notifying the cooperating teacher, school principal and University supervisor of any absences or contemplated changes in the student teaching schedule;

4. refraining from discussion of confidential information in an unprofessional manner;

5. becoming acquainted with school personnel and their functions;
6. assisting in routine procedures, and co-curricular activities;

7. taking the initiative in seeking help from the cooperating teachers;

8. acquiring pertinent information about pupils for whom they are responsible and becoming acquainted with them;

9. gaining information about long range and unit plans in current use, and developing daily unit plans for teaching with the help and guidance of the cooperating teacher;

10. attending school functions such as P.T.A. meetings, faculty meetings and other events that teachers are normally expected to attend;

11. gaining an understanding of the community life as it relates to the school district through visitation to local community agencies and attendance at various community activities;

12. attending seminars, conferences, and workshops scheduled by the public schools or university;

13. continuing the development of a professional attitude;

14. keeping the University supervisor informed of progress made and problems encountered; and

15. learning and carrying out school policies and procedures.

A generic statement of the responsibilities of student teachers is also contained in The Exchange of Services Agreement:

Student teachers assigned to the school will be available to assist cooperating teachers in duties related to instruction. These duties include teaching under the supervision of the cooperating teacher, grading papers, keeping records, playground and lunchroom supervision, providing tutorial instruction for students who need special help, conferring with individual students, conducting home visits, attending professional meetings, and occasionally teaching classes when the cooperating teacher is absent from the classroom. Student teachers may also be requested to observe and participate with other student teachers in the same or different buildings. The cooperating teacher is then free to do other work in the school building. University students shall not serve as substitutes when the regular cooperating teachers are absent. Students shall be
expected to comply with the regulations of the building to which they are assigned, to advise the principal of their presence in the building, or their absence from assigned responsibilities, and to serve in the field according to the school system calendar within any given quarter.

The Cooperating Teacher:

Eligibility requirements for cooperating teachers are clearly addressed in The Exchange of Services Agreement.

To qualify as a cooperating classroom teacher, the teacher shall hold the appropriate standard certificate, have a minimum of three years of successful classroom teaching experience, including at least one year of experience in the field for which the service is being provide, with at least one year of experience in the system, and with the recommendation of the building principal. All cooperating teachers nominated shall give their consent for nomination. Cooperating teachers will be provided with opportunities to receive training in supervision as provided by the University. Preference will be given in the selection process to teachers who have participated in such training.

The cooperating teachers willingly accept responsibility for daily guidance of student teachers, although they recognize their first responsibility to be to the welfare and growth of the pupils entrusted to their care. They are aware that they occupy the key role in making the student teacher program a fruitful learning experience for student teachers. The cooperating teachers assume responsibility for:

1. becoming thoroughly acquainted with the background of the student teachers;
2. preparing the class for the student teachers' arrival;
3. creating an atmosphere in which the student teachers have a definite feeling of belonging;
4. acquainting the student teachers with school policies;
5. orienting the student teachers to the school and the community;
6. providing the student teacher with instructional materials, a personal desk, if possible, access to student records, audiovisual equipment and other materials;
7. acquainting the student teachers with the needs of the children, the curriculum pattern, and the various types of plans for instruction used in the school;

8. demonstrating good teaching techniques;

9. assisting with the professionalization of the student teachers;

10. providing the student teachers with an understanding of the extent of their authority and responsibilities;

11. providing the students the opportunity to assume full teaching responsibilities under guidance for an appropriate period of time, when the student teachers are ready;

12. providing frequent encouragement, constructive criticism and recognition of success;

13. keeping records and writing evaluative reports about the student teachers' progress and general promise as teachers;

14. providing continuous planning and supervision in the evaluation of pupil growth and achievement.

From The Exchange of Services Agreement:

Cooperating teacher: As designated above, the term "cooperating teacher" is used in a broad sense to include classroom teachers, counselors, administrators and other professionals who have supervisory responsibility for the University student working in the school system. Much responsibility for guiding the University student through their laboratory experience rests with the cooperating teacher; accordingly, the work of the cooperating teacher is vital to the success of field-based experiences. The cooperating teacher will assist in assuring that opportunities exist for the University student to assume the role of teacher in its broadest sense; that is, not only in terms of school-aged youth in classrooms, but in the community as well. The cooperating teacher will be expected to evaluate in writing individual student achievement and experience, on the basis of guidelines supplied by the University and approved by the school system.
The University Supervisor:

Persons selected to serve as supervisors of student teachers are employed by the University, have completed at least three years of school-related experience, and have received training from the University.

The University supervisors assume responsibility for the supervision of the activities of student teachers. They work as the liaison person between the Office of Program Development and public schools, through visitation to schools. However, the visitation of student teachers is only one aspect of the many roles of University supervisors. The University supervisors also have the important obligation of working directly with the cooperating personnel to provide realistic, relevant laboratory experiences for University students. This important role varies from faculty to faculty but can be classified into these categories. One is to work cooperatively with school personnel to provide high quality field experiences. The second is working effectively with student teachers in the clinical setting, and the third can be classified as administrative responsibilities. A specific outline of those responsibilities is:

A. The University supervisors work cooperatively with school personnel by:
   1. serving as resource persons, or consultants, when called upon;
   2. being available to cooperating personnel and assisting and advising them concerning problems involving students in the clinical setting;
   3. continuously providing descriptive information about the setting in which the student teachers are placed;
   4. visiting the cooperating teachers and administrators as often as possible to discuss the progress of the student teachers (the length and number of visitations should be based upon the needs of both the student teachers and the cooperating teachers);
   5. providing methods of evaluation feedback to the cooperating teachers and the student teachers concerning the feelings of each;
   6. assigning final grades through continuous evaluation and consultation with the cooperating teachers;
7. participation with other University supervisors in the study and improvement of the student teaching program;

8. assisting in the collection of research data considered pertinent to the student teaching program.

B. The University supervisors work effectively with student teachers by:

1. assisting in the assignment of student teachers;

2. conducting orientation meetings of the student teachers to acquaint them with their responsibilities;

3. visiting and observing the student teachers periodically to insure satisfactory progress on the part of the student teacher, and to effectively collaborate with the supervising teachers in the evaluation process;

4. assisting in the improvement of the student teachers' instructional skills through observation and conferences;

5. providing multi-faceted experiences during the quarter to enhance and promote the transition from student teacher to classroom teacher;

6. serving as discussion leaders at seminars for student teachers;

7. assisting the cooperating teachers and the student teachers in the process of continuous evaluation.

C. The University supervisors work cooperatively with the Office of Program Development by:

1. reporting critical changes in the normal operation of the student teachers they observe;

2. providing feedback to the Office as to the adequacy of each site;

3. making every effort to meet deadlines on required forms, schedules, placements, meetings.
From The Exchange of Services Agreement:

University Supervisor: All students placed in field experiences will be assigned to a supervisor employed by the University, who will carefully assist and advise on matters related to the experience. The University supervisor will observe students and visit with the cooperating teacher as often as possible to discuss the progress of the student. The University supervisor will also provide for a system of continuous feedback for both the student and the cooperating teacher about the student's skills and abilities. The University supervisor shall be responsible for recording grades for the laboratory experience. Grades should be arrived at in consultation with the cooperating teacher.

(Student Teacher Handbook, The Midwestern University)
APPENDIX K

STUDENT TEACHING TASKS FOR PHYSICAL EDUCATION STUDENTS AT THE MIDWESTERN UNIVERSITY
Student Teaching Tasks

Before Week One

1. Attend College of Education student teacher meeting (quarter).

2. Attend Conference 1 with university supervisor (3/6). Meet with university supervisor to exchange phone numbers, etc.

3. Visit school — meet with principal and cooperating teacher. Discuss teaching responsibilities.

4. Prepare 3 management-related objectives which you plan to achieve in the first 2-4 weeks of the experience. Consider the lockerroom, attendance, student names, rules and discipline, etc.

5. Receive a schedule card (complete with your proposed teaching schedule, if possible).

6. Familiarize yourself with "observation-management focus" data recording sheet key behaviors.

7. Begin to organize/prepare first unit plan (even if it is on the Beach in Florida).

During Week One & Two

1. Complete a schedule card indicating teaching times, other duties, etc. and return to university supervisor.

2. Collect data on one student in an activity class using the Observation-Management Focus format. (Inform your cooperating teacher of your intentions—you may wish to identify a good or a poor performer to focus on.) Calculate specific percentages.

3. Discuss management objectives with your cooperating teacher.

4. Determine your projected involvement during Week 1-4.

5. Plan to attend meeting Week 3, April 15 (Conference 2) from 4:00 p.m.

6. At this meeting you will present to the group a 5-minute overview of the school context, the instructional context, and teaching methods employed. If more than one student at a school, this will be a group effort.

7. Present a summary of observation data collected during Week 1.
8. Present 3 management-related objectives and details of how you will achieve these.

9. Discuss perceptions of the experience to come.

10. How can we help each other? (Instructional materials, content experts, etc.).

During Week Three & Four

1. Begin to teach at least 2 classes in each school (or 4 in one school, i.e., the equivalent of 40 minute classes).

2. Develop lesson plans for individual lessons to be taught.

3. Ensure that you will be teaching 3 classes in each setting by Week 4.

4. Discuss management-related objectives with cooperating teacher and university supervisor.

5. Have data collected on one of my classes -- peer, cooperating teacher, or university supervisor.

6. Prepare a plan/strategy to remediate problems and to maintain appropriate teacher/student behaviors.

7. View prospective students of one of your classes in a non-P.E. setting. (Ask your cooperating teacher to introduce you to a classroom teacher and plan to view their class -- an observation schedule is available for this experience.)

8. Begin Cumulative Observation Data Graph from data sheets compiled by university supervisor.

9. Plan to attend final student teacher meeting 4:00 p.m. May 21st. (University location).
APPENDIX L

CRITERIA FOR EVALUATION/FEEDBACK
Criteria for Evaluation/Feedback

Student teacher management-related objectives:

1. Use appropriate management techniques to reduce management time.

2. Reduce the number of teacher managerial behaviors necessary to manage effectively.

3. Establish and maintain an adequate rate of appropriate student behavior. (Definition of appropriate determined by student and supervisor in light of school context.)

4. Teach self-management skills to students. That is, develop or utilize established structures to decrease the need for a high degree of current interaction related to classroom management.

5. Use positive behavioral interactions to accomplish management goals.

6. Cope with and remediate unexpected classroom disruptions by utilizing appropriate management strategies, i.e., be able to actively monitor managerial episodes.

7. Use student names in behavioral interactions.

8. Demonstrate "with-it-ness" in managerial areas.

Student teacher instructional-related objectives:

1. Plan and teach so that participation is maximized. This should be reflected by observations based on activity and wait time data.

2. Teach from a positive style with specific reference to skill feedback and motivation related to instructional objectives.

3. Offer presentations and demonstrations that are clear, to the point, and provide appropriate (accurate) information.

4. Manage time effectively so that practice/participation time is optimized and management/instruction time are minimized given the context of the teaching.

5. Teach to reflect the characteristics of clarity, task orientation, enthusiasm, and a climate conducive to student growth on both skill and attitude.

6. Plan and ensure a safe activity environment.
7. Demonstrate "with-it-ness" in instructional areas.

8. Develop the competence to analyze a skill performance and give appropriate skill feedback.

9. Actively monitor the instructional setting.
APPENDIX M

TASKS SET FOR THE STUDENT TEACHER

BY THE COOPERATING TEACHER

487
Teaching goals -- Spring

Week #1 & Week #2

1. Learn 5 names for each class during Week #1
   - a. Begin to develop management strategies.
2. Learn 10 names for each class during Week #2
3. Ask your students each day...
   What did you learn in gym today?
4. Start to develop softball unit and continuation of the Five Star Track & Field unit.
5. Get to know the school.
6. Introduce yourself to as many staff as possible.
7. Survey the periodicals on shelf.

Week 3

- Behavioral interactions
  Tues _____
  Wed. _____
  Friday _____

- Lesson plans

- Hustles

- Prepared to teach -- classroom ready to go.

- Ask students what they learned in gym today?

- Emphasize techniques of spring start when timing for Five Star 70m & 200m dash.

- Talk about Field Day

- Motivation -- Goal of Five Star improve you performance!
  - records
  - Field Day captains

- Continue to learn names.
Week #4

- Activity time vs. waiting time
- Begin to experience the primary grades
- Waiting time activities
- Modeling in javelin, softball rules
- Peer feedback
- Competition vs. boredom
  - Motivation

NOTE: These tasks were actually set during the post-lesson conference on Friday 25 April which was the end of Week 4. The tasks were intended for Week 5.

Week #6

- Management/Transition time (Data)
- Waiting time activities
- Hustles
- Teaching Ques (End of Week)
  - Modeling

Week #7

- Set up track by 8:30 each day
- Shot put & javelin grids set up on west side of blacktop
- High jump pit set up in walk on north side of gym
- Triple jump on mat outside gym door on walk
- Code for running races set up at finish line
- Record box on sidewalk w/stopwatches
- Cones on end of parking lot
- Sacks/jumping ropes
- Hurdle set up on hill for 200m. shuttle relay
- Standing long jump mat on sidewalk
Things to cover Week #7

- exchange for relays (exchange zone)
  practice relays
    200m. shuttle
    400m relay
    1 lap relay

- 200m. shuttle hurdle relay

- Opportunity to practice field events

- Reminders about safety
  1. cars
  2. shot
  3. javelin
  4. softball
  5. high jump bar
  6. stop watches
  7. recording scores

- The Field Day
  - sack lunch
  - blanket to sit on
  - something to drink
  - know what events you're in
  - behavior at the track (pick up trash)

- Noon intramurals (Week #7)

- Eat lunch 11:15-11:40

- Track opens at 11:45
  Closes at 12:20 (10 minutes to clean up)

- Make announcement in the morning for the grade level

- Supervise area -- give feedback
  give reminders
  - safety
  - recording scores
  - stop watch

NOTE: The title Week 7 was not included on the original.
1st Grade Field

- Be set up at 8:15

- 8:30 (classroom teacher's name) 6th grade class will be your A.M.
  Field Day judges

- Introduce activity to 6th grade
  - emphasize
    - fair play
    - rotation
    - boys vs boys girls vs girls
    - pen for each judge
    - free time suggestions
    - the whistle
    - the gym
    - expectations for helpers
    - bathroom
    - drinks
    - judging events -- management techniques for helpers

- Organize 1st grade in gym

- Give + Behavioral interactions to 1. helpers
  2. participants

- Move around the area giving close supervision

- Group students in gym at end of field day

- Distribute ribbons with comments

- Debrief 6th the helpers

NOTE: The 1st grade Field Day was held on Tuesday of Week 10.
APPENDIX N

FINAL EVALUATION OF STUDENT TEACHER PERFORMANCE

- COMPLETED BY THE COOPERATING TEACHER -
Final Evaluation of Student Teacher Performance

- Completed by Cooperating Teacher -

Student Teacher ___________ Cooperating Teacher ___________

School _____________________ Date __________

Based on your understanding of the criteria established for the student teaching experience, please complete this form. Your information is very important for the continued development of our program. Thank you in anticipation.

I. Teaching situation

Grade levels taught: ________________________________

Type of class (co-ed; elective; mainstreamed)

________________________________________________

________________________________________________

________________________________________________

Class size

Classes per week:

II. Teacher interaction with Pupils

Consider: use of student names, positive and negative interactions, extra involvement out of class, etc.)

________________________________________________

________________________________________________

________________________________________________

________________________________________________
III. Knowledge and Personal Skill of Subject Matter Taught

Consider: appropriate information and demonstration; ability to monitor and analyze pupil skill performance and give appropriate skill feedback.

IV. Planning

Consider: unit plans, lesson plans, safety, clear objectives, evaluation techniques, match objectives.

V. Classroom Management
(a) Use of time

(Consider: low management time, low transition time, management skills taught)
(b) Classroom control

(Consider: maintain appropriate pupil behavior, cope with and remediate disruptive situations, monitor class effectively)

VI. Instructional Effectiveness

(Consider: clarity of interactions, maximum student participation - high activity time, activities related to specific objectives)

VII. Pupil Progress

(Consider: evidence of skill gains, motivate all skill levels, use of remedial activities)
VIII. Student Teacher Development

(Consider: student in week one and weeks 9 and 10, degree of help needed, response to feedback, ability to self evaluate)

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

IX. Other Comments Specific to this Student Teacher

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

X. Overall grade (circle one of the following based on your comments in Sections I-IX)

<table>
<thead>
<tr>
<th>Excellent</th>
<th>Above Average</th>
<th>Average</th>
<th>Below Average</th>
<th>Unsatisfactory</th>
<th>Incomplete</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A-</td>
<td>B+</td>
<td>B-</td>
<td>C+</td>
<td>C-</td>
</tr>
</tbody>
</table>

XI. Other Comments:

Please send to: Dr. Thomas
The Midwestern University
APPENDIX O

PHYSICAL EDUCATION PROGRAM FOR SPRING QUARTER AT

TIERGARTEN ELEMENTARY SCHOOL
 Physical Education Program for Spring Quarter
 Tiergarten Elementary School

(Copied from Cooperating Teacher's noticeboard)

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 March</td>
<td>Introduction to 5 Star Track &amp; field</td>
</tr>
<tr>
<td></td>
<td>Timing/hurdles</td>
</tr>
<tr>
<td></td>
<td>Measuring</td>
</tr>
<tr>
<td>7</td>
<td>Triple jump</td>
</tr>
<tr>
<td>8</td>
<td>Standing long jump</td>
</tr>
<tr>
<td>9</td>
<td>10 min. run</td>
</tr>
<tr>
<td>10</td>
<td>70 meters</td>
</tr>
<tr>
<td>11</td>
<td>AAhPERD</td>
</tr>
<tr>
<td>14</td>
<td>5 Star Track &amp; Field</td>
</tr>
<tr>
<td>15</td>
<td>100m, 200m</td>
</tr>
<tr>
<td>16</td>
<td>Softball overhand throw</td>
</tr>
<tr>
<td>17</td>
<td>Underhand pitch</td>
</tr>
<tr>
<td>18</td>
<td>Baserunning</td>
</tr>
<tr>
<td>28</td>
<td>Javelin</td>
</tr>
<tr>
<td>29</td>
<td>800m</td>
</tr>
<tr>
<td>30</td>
<td>Softball skill</td>
</tr>
<tr>
<td>1</td>
<td>Review</td>
</tr>
<tr>
<td>2</td>
<td>Leadup games</td>
</tr>
<tr>
<td>5</td>
<td>1500m</td>
</tr>
<tr>
<td>6</td>
<td>Softball leadup games</td>
</tr>
<tr>
<td>7</td>
<td>Relays</td>
</tr>
<tr>
<td>8</td>
<td>200m shuttle</td>
</tr>
<tr>
<td>9</td>
<td>800m, 400m</td>
</tr>
<tr>
<td>12</td>
<td>5 Star Track &amp; Field Practice</td>
</tr>
<tr>
<td>13</td>
<td>No Intramurals</td>
</tr>
<tr>
<td>14</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>
19 3/4 Field 20 No classes 21 6 Field Day 22 Field Rain 23 Field Day

Prepare for Field Day 6the Music

26 27 No classes 28 Outdoor adventures capture the flag

No classes 29 mirrors & mortars

27 28 Field Day 29 Softball tournament

Prepare for Field Day 30 Almost anything

6 the Music 30 Major camp
goes

2 3 K Field Day 4 Field Day 5 Last Day of

w/De 1/2 Field Primary Rain 6 Field Day

students in 3 Day No classes

on for gym W students in gym on

8:30-11:15 Br pm

N pm June 2 Field Day helpers

Field Day

June 3
APPENDIX P

INSTRUCTIONAL ACTIVITIES AND SUBJECT MATTER FOCI:

PRIMARY GRADES
TABLE 16

Instructional Activities and Subject Matter Foci: Primary Grades

<table>
<thead>
<tr>
<th>Week</th>
<th>Day</th>
<th>Grade</th>
<th>Teacher</th>
<th>Subject matter foci</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wednesday</td>
<td>2a</td>
<td>Bill</td>
<td>Taffy pull</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Centipede</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ducks and hunters</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Toe touch/stomp</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Buffalo 1 2 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dog and bone (variation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2b</td>
<td>Bill</td>
<td>What's the time, Mr. Wolf?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Zorro</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Throwing and catching</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fence</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Blob</td>
</tr>
<tr>
<td></td>
<td>Thursday</td>
<td>2b</td>
<td>Bill</td>
<td>Modified teeball</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Capture the flag (modified)</td>
</tr>
<tr>
<td>2</td>
<td>Wednesday</td>
<td>2a</td>
<td>Bill</td>
<td>Warmup</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Crazy kickball</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2b</td>
<td>Bill</td>
<td>Warmup</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pirates (with mathematics problems)</td>
</tr>
<tr>
<td>3</td>
<td>Wednesday</td>
<td>2a</td>
<td>Bill</td>
<td>Warmup</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Frisbee throwing for field day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2b</td>
<td>Bill</td>
<td>as for 2a</td>
</tr>
<tr>
<td></td>
<td>Thursday</td>
<td>K</td>
<td>Bill</td>
<td>Parachute (Three little pigs; popcorn)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Bug crawl</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Taffy pull</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2b</td>
<td>Bill</td>
<td>Warmup</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Frisbee throwing for field day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2a</td>
<td>Bill</td>
<td>as for 2b</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2a</td>
<td>Bill</td>
<td>as for 2b</td>
</tr>
<tr>
<td>Week</td>
<td>Day</td>
<td>Grade</td>
<td>Teacher</td>
<td>Subject matter foci</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>-------</td>
<td>---------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Friday</td>
<td>K</td>
<td>Bill</td>
<td>Warmup, Throwing and catching with bean bags and yarn balls</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2b</td>
<td>Bill</td>
<td>Hurdles, Shuttle relay</td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td>K</td>
<td>Bill</td>
<td>Warmup, Throwing and catching Sack races</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Wednesday</td>
<td>2a</td>
<td>Bill</td>
<td>Zip wire, Kickball</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2b</td>
<td>Betty, Warmup, Throwing and catching Dribbling: Type-a-letter Shuttle relay</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2a</td>
<td>Bill</td>
<td>Dribble tag, Ducks and hunters, Jail dodge ball</td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td>2b</td>
<td>Betty</td>
<td>Warmup, Throwing and catching Dribble shuttle</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2a</td>
<td>Bill</td>
<td>Dribble tag, Ducks and hunters, Jail dodge ball</td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td>K</td>
<td>Betty</td>
<td>Warmup, Hot potato, Jail dodge ball</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Wednesday</td>
<td>2a</td>
<td>Bill</td>
<td>Warmup, Run 10 laps, Moonball</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2b</td>
<td>Betty, Dribble tag, Ducks and hunters</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Thursday</td>
<td>2b</td>
<td>Betty</td>
<td>Warmup, Cat in a corner, What's the time, Mr. Wolf?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2a</td>
<td>Betty</td>
<td>as for 2b</td>
</tr>
<tr>
<td>Week</td>
<td>Day</td>
<td>Grade</td>
<td>Teacher</td>
<td>Subject matter foci</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>-------</td>
<td>---------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Friday</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Betty</td>
<td>Dribbling</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cage ball</td>
</tr>
<tr>
<td>7</td>
<td>Wednesday</td>
<td>2a</td>
<td>Betty</td>
<td>Warmup</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Soccer kicking and trapping</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Knock and pin down</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2b</td>
<td>Betty</td>
<td>as for 2b</td>
</tr>
<tr>
<td></td>
<td>Thursday</td>
<td>2b</td>
<td>Bill</td>
<td>Grouping for field day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2a</td>
<td>Bill</td>
<td>as for 2b</td>
</tr>
<tr>
<td></td>
<td>Friday</td>
<td>K</td>
<td>Bill</td>
<td>Grouping for field day</td>
</tr>
<tr>
<td>8</td>
<td>Wednesday</td>
<td>no</td>
<td>classes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thursday</td>
<td>no</td>
<td>classes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Friday</td>
<td>K</td>
<td>Bill</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Wednesday</td>
<td>2a</td>
<td>Betty</td>
<td>Sore spot tag</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Follow-the-leader dribbling</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Moonball</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2b</td>
<td>Betty</td>
<td>as for 2b</td>
</tr>
<tr>
<td></td>
<td>Thursday</td>
<td>2b</td>
<td>Betty</td>
<td>Warmup</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Human knot</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Boop</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pick 'n choose</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2a</td>
<td>Betty</td>
<td>as for 2b</td>
</tr>
<tr>
<td></td>
<td>Friday</td>
<td>K</td>
<td>Betty</td>
<td>Warmup</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sore spot tag</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dribbling: Type-a-letter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Follow-the-leader</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ducks and hunters</td>
</tr>
<tr>
<td>Week</td>
<td>Day</td>
<td>Grade</td>
<td>Teacher</td>
<td>Subject matter foci</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>-------</td>
<td>---------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>10</td>
<td>Wednesday</td>
<td>2a</td>
<td>Betty</td>
<td>Warmup</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Partner tag</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Moonball</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Scooter soccer</td>
</tr>
<tr>
<td>2b</td>
<td>Betty</td>
<td></td>
<td>as for 2a</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX Q

CUMULATIVE OBSERVATION GRAPH FOR STUDENT TEACHING
Cumulative Observation Graph for Student Teaching

Percent Distribution of Pupil Class Time

Knowledge

Management

Off-Task

Note
Activity

Observations by Supervisor
Cumulative Observation Graph for Student Teaching

Student Teacher

Activity

Transition

Waiting

Date

Activity

Observations by Supervisor
AUDIT REPORT

COMMISSIONED BY LYNN EMBREY
FOR HER INQUIRY INTO
STUDENT TEACHING IN
PHYSICAL EDUCATION

Submitted by Sarah Boeh
19 October, 1986.
The trustworthiness of a naturalistic inquiry is determined by four criteria: (a) credibility; (b) dependability; (c) transferability; and (d) confirmability. The extent to which the research has satisfied and fulfilled each of the criterion areas directly affects the ability of the study to invoke confidence from its readers. Lincoln and Guba (1985) have designed a number of techniques which can be employed by the researcher to demonstrate both dependability and confirmability. One such technique, the audit inquiry, was conceived by Guba and later refined by E. Halpern (see Lincoln & Guba, 1985, Appendix B). They fashioned the inquiry after the fiscal audit, requiring employment of a qualified outsider whose responsibility it was to review both the processes used and the end product of the study in question.

The audit report is organized into three sections: introduction; audit activities and judgments; and conclusions. The introduction provides definitions of, and rationale for the audit as well as background information regarding the circumstances surrounding the arrangement for the audit, and the qualifications of the auditor.

The steps of the audit process are explained, and the opinions and judgments of the auditor regarding the study are expressed and briefly discussed in the second section.

The report concludes with the auditor’s attestation to the trustworthiness of the research, and to the excellence by which the study was designed, implemented, and realized.
Section 1: Introduction

The role of the auditor is to examine. In the act of examination, the auditor engages in investigation and reconstruction of the data and processes used by the researcher. The auditor of a well-made study will be able to verify that: (a) the findings are grounded in the data; and (b) the processes used to analyse and categorize have been used uniformly and consistently. The auditor's job is to assure the consumer of the appropriateness of the study, and to attest to the propriety with which the study has been constructed (Guba, 1981).

The researcher and the auditor meet in June 1985, when both were students in the first course of a three part series in qualitative research. In spring 1986, both women were again fellow students in the final course in the series. It was at this time the researcher approached the auditor about the possibility of conducting an audit. Lack of confidence on the auditor's behalf was responsible for the rather lengthy delay of her response of acceptance. In preparation for the audit, the auditor attended the beginning course in qualitative research again (in summer 1986), and reviewed texts and materials from the three-part series.

Despite the friendship that existed between the researcher and the auditor, care was taken not to discuss the study until the final days of the completion of the audit.

The auditor is a Graduate Teaching Assistant in the Movement
Arts section of the School of Health, Physical Education, and Recreation at The Ohio State University. She is a second year Ph. D. student whose primary area of study is movement analysis and notation. She is also completing a teaching qualification in Laban Analysis. Given the coursework she has completed in qualitative research, and the nature of the field of interest, she will most certainly select the qualitative paradigm in her own research.

Section 2: Audit Process

An inquiry audit cannot be conducted without the evidence of the research study. Therefore, an audit trail must be provided by the research design, and the materials assembled in a manner that allows the auditor to conduct the audit.

Below is a list of materials that compose Embrey's audit trail. She has provided the auditor with everything except the subjects and the gymnasium.

Audit trail
- Chapters 1 to 4 (Chapter 5 was given to me 3 days later)
- drafts of proposal, letters of entry
- original and expanded fieldnotes
- photographic records
- reflexive journal
- documents: The Midwestern University (College of Education, and HPER), Tiergarten
- student teacher's journal
- interview transcripts
- single written records
  - Frames of reference: student teacher, cooperating teacher, university supervisor, researcher
  - student teacher's observations
  - interactions, and context
- time matrices of lessons
- memos
- member checks
- papers from ED P&L 925C49, and 925C48
- audiotapes
- committee drafts and revisions.

In each notebook and data source, lines are coded, categories are assigned, and cross referencing is noted throughout. The overall organization of Embrey's research materials is top-notch, as well as impressive. Each of the 25 notebooks is carefully marked and tabbed with an index of contents proceeding each subsection. In addition to the notebooks, nearly 200 audio cassette tapes were labeled, and the tapes were bound together by subject, and/or date. The quality of the tapes is good; very few words are lost or unintelligible.

Three components of Embrey's audit trail impressed me as being outstanding in their construction and use. Embrey expanded her fieldnotes by integrating data from audio sources, journals, and
whatever information she had for that particular day with the fieldnotes she had taken. From the outset, Embrey sought to find connections in her data in order to maintain its reality, and to avoid reducing her findings to "piecemeal" (Koehler, 1985).

Secondly, the manner in which she managed and used her reflexive journal highlights the sensitivity, and thoroughness with which she attacked the study. In addition to the coding that she attached to each entry, she also recorded whether or not she had followed through on suggestions and questions that she had posited next to the entry showing to the auditor that the journal was actively used throughout the study, and not merely a device created to satisfy the requirements of a complete audit trail.

Thirdly, the decision to maximize the use of member checks can be recognized throughout her design in interview schedules, letters of entry, informal discussion questions, all of which showed the researcher’s efforts to clarify and to capture truth as it is lived by the participants. The researcher encouraged and created opportunities for the participants to amend, agree, or delete information.

Embrey was both careful and wise in her decision to investigate her research question from a qualitative perspective. Her choice of case study as her methodology, and well as her selection of Evertson and Green’s (1986) “Observation as method and inquiry”, reflect the suitability of the research design to the ever
changing needs of the setting and its participants.

The employment of "natural units" (Fassnacht, in Evertson & Green, 1986) as the unit of analysis (Chapter 3); the use of Spradley's (1980) principle of domain and taxonomic analyses (Chapter 3) for defining categories; and the use of Miles and Huberman's (1984) role-by-time matrices for the purposes of analysis, all reflect the keen scrutiny with which the researcher approached and handled her study. By all accounts, the processes used by the researcher were appropriate to the needs of the study and were consistently applied.

McCall (1969) in Guba and Lincoln (1981) suggested that

... the key to data quality control in ... observation is, thus, the thorough use of multiple indicants ... and an insistence on a very high degree of consonance among these indicants..." (p. 212).

Heeding this the researcher constructed strands of data which then were woven to create a tapestry of her reality; a fabric that was both rich in detail, and durable in construction.

Shifts in methods of inquiry during the research process should be noted by the auditor and a determination made as to "whether or not the shifts were supportable or sensible ..." (Lincoln & Guba, 1982, p. 16). Embrey's only noticable shift occurred in her treatment of defining and analysing "tasks". She originally adapted Tinning's (1983) conceptualization of tasks, but, realizing the limitations of this theory put her efforts to explain "why tasks did/did not do all
they were supposed to" (Reflexive journal, p. 169). She re-initiated a search for an analysis design that was more suitable for her needs. After re-reading Doyle and having diagrammed a hierarchy of tasks that sports levels and layers, Embrey re-instated the basic components of ALT-PE, deciding that it provided her with a sound and manageable coding system for tasks (see Reflexive journal, p. 169-172 for examples).

It is the auditor's opinion that the shift in task analysis was both necessary and sensible. The researcher wisely selected a clearer and more fitting method with which to bound and analyse the area of her "tasks".

Although the auditor may be able to follow the audit trail successfully, so doing does not guarantee that the auditor will be able to share the inferences made by the researcher. Lincoln and Guba (1985) suggest, regardless of the auditor's limited knowledge of the subject matter of the study, that the inferences made by the researcher should emerge from the data and appear to be logical. Despite my teaching activity classes for the physical education department at The Ohio State University, I am not formally involved in the teacher education program, nor overly familiar with the student teaching experience. By the time I received Chapter 5 I had conducted most of the steps of the audit process. Upon reading the chapter I found that my conclusions paralleled those presented by Embrey and this recognition added confirmation to my resolution
that the inferences made were both emergent and logical.

Section 3: Conclusions

Lynn Embrey's case study of the changes in behavior of the student teacher is an outstanding piece of qualitative research. Her diligence toward, and commitment to creating and maintaining an impressive audit trail is evidenced throughout the study by clear organization and concise writing. The auditor finds the report to be well-structured, logical, and impecably constructed. The processes and procedures used by the researcher in the study are accepted practices in the field of qualitative research. The auditor is satisfied that the conclusions set forth by the researcher are warranted from the data, and that great care has been taken to present "just the facts" as shown in the reality.

Embrey's study should set the stage for many more in-depth naturalistic inquiries into the student teaching milieu. Her study will serve future researchers as both a valuable resource guide, and a symbol of quality research.

Postscript

Use and continued refinement of the inquiry audit is an important development in the field of qualitative research. The requirements that the inquiry audit places upon the researcher can help to improve and strengthen researcher's understanding of the decision-making processes and responsibilities involved in creating and adhering to a research design that strives to warrant
trustworthiness.

Like Eileen Beck (in Steen, 1985) the audit has greatly aided my overall understanding of the various components and responsibilities involved in the planning, implementing, and realizing of naturalistic inquiry.
References


