THE TEACHING OF MODERN DANCE:
WHAT TWO EXPERIENCED TEACHERS KNOW, VALUE AND DO

DISSERTATION

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

By
Sylvie Fortin, B.A., M.Sc.

The Ohio State University

1992

Dissertation Committee: Approved by:
Daryl Siedentop
Nancy Chism
Judith Koroscik
Lucy Venable
Advisor
Interdisciplinary Program
To My Parents
ACKNOWLEDGMENTS

Three years ago, I came to The Ohio State University hardly speaking and writing English. Through my scholarship, I developed my language skills enough to complete this 328-page dissertation. However, when it comes time to thank Dr. Daryl Siedentop for the way he guided me throughout this study, I cannot find the appropriate words. Even in my native language, words seem too little for all the gratitude I have for him. Merci Daryl ... du fond du coeur!

I also sincerely thank the other members of my advisory committee: Nancy Chism, whose teaching attracted me to qualitative research and who supported me throughout the process; Judith Koroscik, who invited me to join a research team at the start of my studies--her encouragement at this early stage was very important; Lucy Venable, for her insightful suggestions and comments.

Special thanks are extended to Jill Green and Dan Rosenberg for reading the case narratives and giving me helpful advice. On the financial side, I am appreciative to the Université du Québec in Montréal for granting me leave to pursue a doctorate. Finally, my appreciation is extended to the subjects of the study, Glenna and Martha. They both gave so much of themselves.
VITA

July 19, 1959 Born Chibougamau, Québec, Canada
1979-1982 B.A. Université de Montréal
1984-1986 M.Sc. Université de Montréal

PERIODICALS PUBLISHED


BOOKS PUBLISHED


PROCEEDINGS OF CONFERENCES


FIELDS OF STUDY

Major Field: Interdisciplinary Program

Studies in Dance, Professor Lucy Venable

Studies in Teacher Education, Professor Daryl Siedentop

Studies in Qualitative Research, Professor Nancy Chism

Studies in Art Education, Professor Judith Koroscik
# TABLE OF CONTENTS

- **DEDICATION** ........................................................................................................................................... ii
- **ACKNOWLEDGEMENTS** ............................................................................................................................... iii
- **VITA** ............................................................................................................................................................ iv
- **LIST OF FIGURES** ....................................................................................................................................... viii

1. **INTRODUCTION** ........................................................................................................................................ 1
    - Research Questions ................................................................................................................................. 4
    - Significance of the Study ......................................................................................................................... 5
    - Delimitation of the Study ......................................................................................................................... 6
    - Definition of Terms ................................................................................................................................. 8

11. **REVIEW OF RELATED LITERATURE** ........................................................................................................ 11
    - Teacher Effectiveness Research ........................................................................................................... 11
    - Classroom Ecology Research .............................................................................................................. 14
    - Teacher Thinking Research .................................................................................................................. 16
      - Planning .............................................................................................................................................. 17
      - Teacher Interactive Thoughts and Decisions ..................................................................................... 18
      - Theories and Beliefs ........................................................................................................................... 20
    - Teacher Knowledge Research ............................................................................................................. 22
      - Elbaz’s Practical Knowledge .............................................................................................................. 25
      - Shulman’s Knowledge Base for Teachers ............................................................................................ 27
    - Teaching Dance Research .................................................................................................................... 34

111. **METHODOLOGY** ..................................................................................................................................... 36
    - Qualitative Method .................................................................................................................................. 36
      - Sampling ............................................................................................................................................... 38
      - Subjects ................................................................................................................................................. 39
      - Settings ................................................................................................................................................ 41
      - Entrée .................................................................................................................................................... 42
    - Data Collection ....................................................................................................................................... 45
      - Observations ....................................................................................................................................... 45
      - Semi-Structured Interviews ............................................................................................................... 48
      - Stimulated Recall ............................................................................................................................... 49

vii
1V. FINDINGS CASE ONE .................................................................67

  Biography ..............................................................................69
  Teaching Environment ..........................................................75
    The American Dance Festival ..............................................75
    The Six-Week Professional Program ..................................76
    The Technique Lab/Performance Improvement Class .......77
    Description of the Room .....................................................78
  Synthesis .............................................................................79

Part 2-What Does Gienna Know and Believe about the Teaching of
  Modern Dance? ......................................................................82
  What Is the Source of Gienna's Knowledge and Beliefs? ........82
    Dance Background............................................................83
      Conception of technical dance class ...............................83
      Influence of dance background ......................................86
    Body Therapies .................................................................87
      Conception of the body therapies ....................................87
      Influence of the body therapies ......................................90
    Physical Therapy ..............................................................91
      Conception of physical therapy ......................................91
      Influence of physical therapy .........................................92
    Continuing Education ......................................................94
      A search from the outside ..............................................94
      A search from the inside ...............................................96
  Summary ............................................................................99

What Are the Central Organizing Principles of Gienna's Content

Knowledge of Modern Dance Teaching? ..................................100
  Sensing Kinesthetically ......................................................101
    Sensing and anatomical knowledge ..................................102
    Sensing and moving .......................................................104
    Sensing and repetition of movements ..............................104
  Whole Body Connectedness .............................................105
    Any body part reflects the overall movement organization ..106
  Initiation ...........................................................................109
  Sequencing ........................................................................109
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Bates Dance Festival</td>
<td>193</td>
</tr>
<tr>
<td>The Body-Mind Dancing-Modern 3 Class</td>
<td>194</td>
</tr>
<tr>
<td>Description of the Room</td>
<td>195</td>
</tr>
<tr>
<td>Synthesis</td>
<td>196</td>
</tr>
<tr>
<td>Part 2-What Does Martha Know and Believe about the Teaching of Modern Dance?</td>
<td>199</td>
</tr>
<tr>
<td>What is the Source of Martha's Knowledge and Beliefs</td>
<td>199</td>
</tr>
<tr>
<td>Body-Mind Centering</td>
<td>199</td>
</tr>
<tr>
<td>The developmental work</td>
<td>200</td>
</tr>
<tr>
<td>The body's component system</td>
<td>201</td>
</tr>
<tr>
<td>Laban Movement Analysis</td>
<td>201</td>
</tr>
<tr>
<td>Effort</td>
<td>202</td>
</tr>
<tr>
<td>Space</td>
<td>202</td>
</tr>
<tr>
<td>Bartenieff Fundamentals</td>
<td>203</td>
</tr>
<tr>
<td>Dance Background</td>
<td>204</td>
</tr>
<tr>
<td>Summary</td>
<td>206</td>
</tr>
<tr>
<td>What Are the Central Organizing Principles of Martha's Content</td>
<td>208</td>
</tr>
<tr>
<td>Knowledge of Modern Dance Teaching</td>
<td>208</td>
</tr>
<tr>
<td>Variation of Space and Dynamism</td>
<td>208</td>
</tr>
<tr>
<td>Developmental Body Part Relationships</td>
<td>209</td>
</tr>
<tr>
<td>Moving from Inside Out</td>
<td>210</td>
</tr>
<tr>
<td>Summary</td>
<td>211</td>
</tr>
<tr>
<td>On What Bases Does Martha Select the Content for Her Teaching?</td>
<td>212</td>
</tr>
<tr>
<td>Conceptual Frameworks</td>
<td>212</td>
</tr>
<tr>
<td>Past Experiences</td>
<td>213</td>
</tr>
<tr>
<td>Movement Preferences and Personal Needs</td>
<td>216</td>
</tr>
<tr>
<td>The Students</td>
<td>218</td>
</tr>
<tr>
<td>Summary</td>
<td>220</td>
</tr>
<tr>
<td>Synthesis of Findings and Discussion</td>
<td>221</td>
</tr>
<tr>
<td>Part 3- What Are the Teaching Practices Exhibited by Martha?</td>
<td>224</td>
</tr>
<tr>
<td>What Is the Instructional Climate and How Is it Conveyed?</td>
<td>224</td>
</tr>
<tr>
<td>A Joyful and Nurturing Climate</td>
<td>224</td>
</tr>
<tr>
<td>Discrepant Instances</td>
<td>228</td>
</tr>
<tr>
<td>Summary</td>
<td>237</td>
</tr>
<tr>
<td>How Is the Content Made Manifest through Learning Tasks?</td>
<td>238</td>
</tr>
<tr>
<td>Instructional Tasks Categories</td>
<td>238</td>
</tr>
<tr>
<td>Routine copy tasks</td>
<td>239</td>
</tr>
<tr>
<td>Theme and improvised variations tasks</td>
<td>239</td>
</tr>
<tr>
<td>Guided improvisation tasks</td>
<td>240</td>
</tr>
<tr>
<td>Free improvisation tasks</td>
<td>240</td>
</tr>
<tr>
<td>Task Categories and Central Organizing Principles</td>
<td>241</td>
</tr>
<tr>
<td>Task Categories and moving from inside out</td>
<td>241</td>
</tr>
<tr>
<td>Task categories and variation of space and dynamism</td>
<td>243</td>
</tr>
<tr>
<td>Task categories and developmental body part relationships</td>
<td>245</td>
</tr>
<tr>
<td>Communication of Instructional Tasks</td>
<td>248</td>
</tr>
<tr>
<td>Verbal communication</td>
<td>248</td>
</tr>
<tr>
<td>Visual demonstration</td>
<td>256</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>Tactile communication</td>
<td>260</td>
</tr>
<tr>
<td>Summary</td>
<td>261</td>
</tr>
<tr>
<td>What Is the Pattern of Tasks within and between Lessons?</td>
<td>262</td>
</tr>
<tr>
<td>Pattern of Tasks within a Lesson</td>
<td>262</td>
</tr>
<tr>
<td>Pattern of Tasks between Lessons</td>
<td>265</td>
</tr>
<tr>
<td>Summary</td>
<td>266</td>
</tr>
<tr>
<td>Synthesis of the Findings and Discussion</td>
<td>266</td>
</tr>
<tr>
<td>Chapter Conclusion and Implications</td>
<td>268</td>
</tr>
<tr>
<td>VI. CONCLUSION</td>
<td>271</td>
</tr>
<tr>
<td>Cross-Case Discussion</td>
<td>271</td>
</tr>
<tr>
<td>Directions for Future Research</td>
<td>278</td>
</tr>
<tr>
<td>Methodological Issues</td>
<td>281</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>289</td>
</tr>
<tr>
<td>APPENDIXES</td>
<td>305</td>
</tr>
<tr>
<td>A. Participation request</td>
<td>305</td>
</tr>
<tr>
<td>B. Letter to the directors</td>
<td>308</td>
</tr>
<tr>
<td>C. Observational sheet</td>
<td>310</td>
</tr>
<tr>
<td>D. Interview guide example</td>
<td>312</td>
</tr>
<tr>
<td>E. Student questionnaire</td>
<td>314</td>
</tr>
<tr>
<td>F. Coding system for the documents</td>
<td>316</td>
</tr>
<tr>
<td>G. Expended field note sample</td>
<td>318</td>
</tr>
<tr>
<td>H. Planning sheet sample</td>
<td>320</td>
</tr>
<tr>
<td>I. Member check request</td>
<td>323</td>
</tr>
<tr>
<td>J. Task description for Glenna's class</td>
<td>325</td>
</tr>
<tr>
<td>K. Task description for Martha's class</td>
<td>328</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

1. Mediating process paradigm .................................................. 2
2. Coding system of observational data ....................................... 54
3. Coding system of interview data .......................................... 55
4. Coding system of planning sheet ........................................ 55
5. Themes and subthemes of Glenna's classes ......................... 107
CHAPTER I
INTRODUCTION

Although early theorists such as H'Doubler (1959) suggested that dance educators extend the teaching of dance beyond the studio, dance has typically adopted a studio orientation. Technical training in the studio has always been the element mainly supported by dance educators (Karkmark, 1976; Lee Morin, 1992). Many authors in the field of dance (Clarkson, 1988; Gray, 1990; Lord, 1984; Myers, 1989) have argued that technical dance classes are usually taught in a very traditional way. Students in technical classes are placed in rows while imitating the steps demonstrated by teachers. According to Lord (1984), whether they teach in recreational, educational, or professional settings, dance teachers tend to reproduce the pedagogical strategies prevailing in professional settings. Complementing the work of Lord, Myers (1989) addressed the instructional conformity of dance teachers. She goes so far as to speculate that when asked the reasons for their instructional choices, most dance teachers would answer "the tradition, the way things are" (p. 1). Lord and Myers, talking respectively about pedagogy and instruction, depicted dance teachers as individuals who follow a tacitly admitted way of "thinking" and "doing." Exactly what the thinking and doing of dance teachers is remains unclear to date.

Shulman's concept of pedagogical content knowledge provides a framework to look at both aspects, thinking and doing. Pedagogical content
knowledge "represents the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction" (Shulman, 1987, p. 8). An important assumption of Shulman's work is that the rationales provided by teachers for their actions are as important as their behaviors. It appears worthwhile, therefore, to investigate not only how dance teachers think about their content but also how they actually teach.

Thus, this study proceeds under the assumption that what teachers know influences what they do in class, and even though what they do in class does not directly cause the students' achievement, it nevertheless influences what students do, which in turn determines what they learn. This reasoning is illustrated in the following figure, the mediating process paradigm.

```
teachers' knowing teachers and students' doing students' knowing
   presage       process-process      product
```

Figure 1. Mediating process paradigm.

While the investigation of the relationship between teachers knowing and/or doing and students' achievement is of prime importance, the focus of this study is on the first two elements of the figure: teachers' knowledge and
teacher's behaviors, areas that Dunkin and Biddle (1974) have classified as 
presage-process.

Investigating the knowing and doing of modern dance teachers seems 
to come at a particularly appropriate point in time. According to many 
authors (Gray, 1990; Hanstein, 1990; Howe 1989), dance education is in the early 
stages of a significant new period. Two developments seem to be of special 
significance in this new period.

One development is a growing concern for dance teacher preparation, 
which is partially rooted in the recent adoption by the National Dance 
Association and other dance organizations of a discipline-based art education 
approach (DBAE). The main idea of DBAE is that art instruction should be based 
on content from the disciplines of art production, art history, art criticism, 
and aesthetics. The changes recommended focus not only on more substantive 
dance curricula, but also on more thoughtful dance teachers. Many authors 
(Hanstein, 1990; Posey, 1989) have suggested that the development of qualified 
and competent dance teachers is an urgent concern to address. This has raised 
the issue of identifying the knowledge base required for competent teaching.

Brooks Schmitz (1990) declared that:

If we are serious about dance education within the school setting and 
the preparation of professional dance educators, current dance 
educators must engage in the difficult identification of the knowledge 
base required for competent teaching, and develop the materials and 
strategies to transfer this to students. Dance faculty involved in teacher 
training and teachers in the school settings must jointly engage in 
research and discussion which focuses on curricula content and 
methods for dance education, and on the affective and aesthetic 
outcomes for students in general education and specialized settings. (p. 
61)
The second development impacting the field of dance is the emerging area of dance science and somatics\(^1\). "Dance science, one of the most rapidly expanding areas in dance, is relatively a newcomer to our field. Barely ten years ago," observed Dunn (1990), "the term did not even exist" (p.25). The vitality of the emerging field is impressive. In February 1991, the first symposium on dance science and somatics was held in Philadelphia, and the newly formed International Association for Dance Medicine and Science held its first conference in Baltimore in June 1991. Increasing numbers of dance artists and educators are concerned with integrating dance science and somatics concepts into their more traditional training and teaching (Dunn, 1990; Myers, 1989; Wilson, 1990). The increasing attention given to dance science and somatics reveals an important change in the conception of relevant knowledge in dance. For this reason, investigation of the knowledge base for teachers is worthwhile.

Research Questions

The purpose of this study was to examine, through two case studies, the pedagogical content knowledge of two experienced modern dance teachers in an academic/half-professional setting. The central research question concerned the way the two experienced dance teachers think about the

---

\(^1\) Somatics and body therapies are interchangeable terms referring to idiosyncratic practices developed by individuals such as Alexander (1932), Feldenkrais (1949), Bartenieff and Lewis (1980), Bainbridge Cohen (1982), and Sweigard (1974). For an introduction to somatic practices, see Hanna (1983, 1986), Magione (1989) and Myers (1980).
teaching of modern dance and the relationship of this to their teaching practice. Two major questions and six subquestions derived from this concern.

1. What do these two experienced modern dance teachers know and believe about the teaching of modern dance?
   - What is the source of this knowledge and these beliefs?
   - What are the central organizing principles of their content knowledge of modern dance teaching?
   - On what bases do these two teachers select the content for their teaching?

2. What are the teaching practices exhibited by these two experienced modern dance teachers?
   - What is the instructional climate and how is it conveyed?
   - How is the content made manifest through learning tasks?
   - How do the tasks vary within a lesson and among lessons?

Significance of the Study

This research is important because gathering information about the basis for and implementation of dance teaching is a step in developing a knowledge base for teaching (Getty Center for Education in the Arts, 1985). Any changes in curricula or teaching methods must be built upon knowledge of existing practices.

Authors in the dance fields (Allen, 1988; Brooks Schmitz, 1990) have recently recommended the identification of a knowledge base in teaching. However, no research has been published on the subject. I hope that this
study will contribute to a better understanding of what goes on in the dance studio in relation to what goes on in the mind of the teacher, an endeavor that has been previously unexplored.

This study is also significant because it explores the sources of knowledge of dance teaching so that teacher educators can gain a greater grasp of the factors that influence teaching. Therefore, the results of the study may serve to influence dance teaching programs.

Finally, although many factors influence student learning, teachers are an important factor contributing to what students will ultimately come to know of a subject. If, for instance, dance teachers conceptualize dance teaching as exclusively the transmission of a repertoire of movements and do not include in their teaching activities anything other than the imitation of the prescribed steps, it is unlikely that students will progress in their appreciation of dance (Blaine & Bucek, 1988; Lapointe-Crump, 1990). Developing a better understanding of the knowledge base of dance teachers may eventually lead to a deeper understanding of the teaching-learning process in dance.

Delimitation of the Study

This study is limited by the choice of the subjects and settings. The subjects and settings for the study have not been chosen for their typicality. Schofield (1990) argued that portraying the typical, the what is, is worthwhile, but so is the studying of what may be. "Studying what may be refers to designing studies so that their fit with future trends and issues is
maximized. Techniques suggested for studying what may be include seeking out sites in which one can study situations likely to become more common with the passage of time and paying close attention to how such present instances of future practices are likely to differ from their future realizations" (p. 226). This study falls in the what may be category since, as I will detail in the methodology section, the subjects selected have a particular background and teach in settings that are known to be on, as Schofield puts it, the "leading edge" of change.

This study also presents limitations related to its methodology. A particular limitation related to conducting case studies concerns the notion of generalizability. The small sample of my design is not intended to be directly generalizable beyond the given subjects and settings selected. Nevertheless, in a very real sense the insights resulting from this study may be used in future research designed to investigate similar concerns. Thus it is the reader or "consumer of the research" who does the generalizing that extends beyond the scope of a particular study (Wehlage, 1981, p. 216). The idiosyncratic nature of qualitative studies places the responsibility of use on the reader. On that matter, Schofield (1990) stated that at the beginning of the history of qualitative inquiry researchers rejected the notion of generalization. They held the opinion that the cases under study were interesting in and of themselves. However, during the past decade, the trend is towards redefining or reconceptualizing the notion of generalization. Cochran-Smith and Lytle (1990) reported that, in educational research, it is not worthwhile to look for universal application of the findings independent of the context in which the studies have been done. However, this does not mean that researchers should
not be interested in those aspects of a study that might "speak" to another study. Without looking for replicability, e.g., exact duplication of a study, qualitative researchers nevertheless must provide in their reports sufficiently thick descriptions to allow other researchers to judge the "fittingness" or transferability (Guba, 1981) among numerous qualitative findings.

There are also constraints related to a portion of this study that consisted of collecting data on teachers' thoughts through stimulated recall. The limitations of verbal reports as data have been well documented (Yinger, 1986; Mehan & Frake, cited in Ericsson & Simon, 1984). Among other criticisms, there is the argument that what people say about their thinking may not be identical to their original thoughts while acting. Van Manen (1984) pointed out that describing the features of a phenomenon such as thinking is in a sense only an icon, an example of the thing itself.

Definition of Terms

Several terms used in this study have unique meanings. To facilitate reading the remainder of the study, the following terms are defined: **Knowledge**: "Refers to an individual's personal stock of information, skills, experiences, beliefs, and memories. . . . encompasses all that a person knows or believes to be true, whether or not it is verified as true in some sort of objective or external way" (Alexander, Schallert, & Hare, 1991, p. 317). **Subject matter**: "A realm of knowledge that broadly encompasses a field of study or thought" (Alexander, Schallert & Hare, 1991, p. 317).
Content knowledge: "Refers to the amount and organization of knowledge per se in the mind of the teacher" (Shulman, 1986b, p. 9); the ideas, the concepts, the facts, and the topics that inform the subject matter.

Pedagogical knowledge: Refers to content-independent aspects of teaching such as knowledge of the students and how they learn, knowledge of strategies for planning and management.

Pedagogical content knowledge: The amalgam of content knowledge and pedagogical knowledge that a teacher develops regarding the teaching of a particular subject matter.

Central organizing principles: Personal key concepts of content knowledge of a teacher upon which other concepts are grafted. Inspired by Elbaz's (1983) concept of "principles of practice," the central organizing principles are used to guide a teacher's actions and explain the reasons for those actions.

Instructional tasks: Refers to what activities the teacher asks the students to do and what activities the students do, e.g., the actual exposure, at a cognitive or physical level, to the curricular knowledge of the subject matter.

Instructional representations: "A wide range of models that may convey something about the subject matter to the learner: activities, questions, examples, and analogies, for instance. We are not talking about representation as cognitive psychologists do—that is, as the mental representation that learners construct for themselves as they learn or that teachers have that shape their learning" (McDiarmid, Ball, & Anderson, 1989, p. 194).

Curricular knowledge: Refers to knowledge that directly guides ongoing interaction with the instructional task, knowledge that is currently the
demand of the task. In this study it refers to the particular topic for special classes.
CHAPTER II
REVIEW OF RELATED LITERATURE

The review of literature is divided into five sections: teacher effectiveness research, classroom ecology research, teacher thinking research, teacher knowledge research, and dance teaching research. An overview of the research conducted within the teacher effectiveness, classroom ecology, and the teacher thinking paradigms is presented first since that research has failed to take into account the specific subject matter taught. This is an important issue of the research on teacher knowledge base, which Shulman (1986a) referred to as the missing paradigm. The various directions of research within the knowledge base research paradigm are then outlined before addressing more specifically the pedagogical content knowledge literature. Finally, the review will conclude with the research on the teaching of dance, although it is relatively new and scarce.

Teacher Effectiveness Research

Teacher and student behaviors have been the main focus of the teacher effectiveness paradigm. Evidence from much research on teacher effectiveness shows that teachers do affect student achievement and certain teaching behaviors can contribute greatly to student learning. Researchers
within the teacher effectiveness paradigm approached the study of teacher and student behavior from a process-product or a mediating tradition. In the process-product research, in order to estimate the effects of teacher behaviors on pupil learning, usually defined by standardized achievement tests, a large number of descriptive and correlational studies were conducted from the mid-1960s to the mid-1980s. An important contribution of this research field was the creation of numerous low-inference observational systems. The complex reality of teaching was broken down into discrete units and observed in the naturalistic settings of the classrooms over a period of time.

Gradually the mediating process paradigm emerged from the process-product research. Explanatory mediating variables were added to the previous model, variables that could stand between teacher behavior and student achievement and further explain them. Researchers concluded that teachers' behaviors do not directly cause students' achievement, but rather influence what students do, which in turn influences what they learn. Dunkin and Biddle (1974) illustrated this idea in a model for the study of classroom teaching that encompasses presage, context, process, and product variables.

The research conducted within the process-product and process mediating paradigms is extensively reviewed in the *Handbook of Research on Teaching, Third Edition* chapters by Doyle (1986), Brophy and Good (1986), and Rosenshine and Stevens (1986). Among the key indicators of effectiveness emerging from their reviews are: establishment and maintenance of various classroom rules and routines at the start of the school year, amount of content covered, amount of time spent on content, activities that provide a high level
of successful practice, and absence of a negative climate. The notion of direct instruction or active teaching, i.e., presenting information, demonstrating, asking questions, giving feedback, supervising independent work activities, and monitoring progress also emerges as an important conclusion about teacher behaviors that maximize student achievement.

Having provided a brief overview of the central question of the teacher effectiveness research, its prototypical methods, and the type of findings it generates, I now turn to its shortcomings to emphasize how the recent research on teacher knowledge developed in response and reaction to earlier orientations of research. Upon reviewing the limitations of the teacher effectiveness paradigm, Shulman (1986a) pointed out that most of the time the specificity of subject matter taught did not receive sufficient consideration. He argued that Dunkin and Biddle's (1974) view of subject matter as a context variable was misleading. Teachers and students interact with each other in and through the content. "The content and the purposes for which it is taught," he stated, "are the very heart of the teaching learning processes" (p. 8). He continued by saying that classroom management behavior and generic instructional behaviors were the focal point of the teacher effectiveness research rather than "behavior describing the substantive subject-specific content of instruction (e.g., choice of examples, sources of metaphors, type of subtraction algorithm employed, reading comprehension strategy, demonstrated and explained, and the like)" (p. 12).

Shulman (1986a) argued that a second limitation of teaching effectiveness research was that the restricted focus on observable student and teacher behavior neglected the cognitive and affective states of the teachers
and students. Before turning to the teacher thinking paradigm, which is specifically concerned with the cognitive activities of the teachers, I will describe the ecological paradigm that, in terms of time, is situated between the mediating paradigm and the teacher thinking paradigm.

Classroom Ecology Research

The ecological paradigm of the classroom emerged at the beginning of the 1980s in partial reaction to the limitations of the dominant process-product research in the 1970s. "As we enter the world of research on classroom ecology," pointed out Shulman (1986a), "we encounter an utterly different set of intellectual traditions. Not only are these more often qualitative than quantitative methodologically, but their parent disciplines are more frequently anthropology, sociology, and linguistics" (p. 18). Shulman explained that classroom ecology research encompasses a wide range of studies from the microanalysis of verbal and nonverbal interactions of a single reading lesson (McDermott, 1976) to the macroanalysis of an entire school with data gathered over a few weeks' period (Peshkin, 1978). Reviewing the literature of the ecological paradigm goes beyond the purpose of this section. Indeed, I focus only on the work of Doyle (1979), a leader of the ecological paradigm, from whom I borrowed the concept of task used in this study. Whereas the previous section highlighted the need for research addressing the content of the subject matter taught, this section presents a conceptualization of content by placing the concept of task as the unit of instructional activity.
Doyle (1979) explained that, in process-product research as well as in the mediating research paradigm, the direction of causality was typically from the teacher to the students. Doyle argued that classrooms are complex environments in which teachers influence students and vice versa. While the effectiveness approaches reviewed thus far viewed the teacher as a technician, the ecological paradigm viewed the teacher as an active agent contributing to the organization and definition of meanings. Those meanings are subject to continuous revision. Doyle (1990) explained that the construct of interpretation is important because it "directs the analysis to the frameworks of meaning students and teachers bring to situations and how these interact with the curriculum contexts in which they find themselves" (p. 24). For Doyle, the curriculum is processed through a set of tasks in which teachers and students jointly negotiate content and meanings. The tasks are defined by the answers students are required to produce and the routes that can be used to obtain those answers (Doyle, 1979). The tasks evolve during interactions as the teachers and the students work together to meet instructional goals.

Unlike the previous paradigm, in Doyle's model the subject matter is central. The privileged unit of inquiry is not the individual behaviors of the teachers or the students but rather the tasks that "supply an organizing reference for interpreting events and actions in classrooms" (Doyle, 1979, p. 192). An important contribution of Doyle's ecological model is thus to have examined "the subject matter as a classroom process rather than simply as a context variable in studies of teaching" (Doyle, 1986, p. 365). Another important contribution of the ecological paradigm is to have posited the notion
of task as the central element to an understanding of the complexity of
teaching and learning. "Skilled teachers," Hollingsworth (1989), argued,
"know how to merge knowledge of human learning, subjects, and pedagogy
into specific academic tasks" (p. 163). The idea of placing the subject matter at
the heart of the research, with the concept of task as the central unit of
observation that directs both thought and actions, is particularly relevant to
this study.

Teacher Thinking Research

Teacher thinking research began at the end of the 1960s. Its aim was to
investigate the mental life of teachers, as well as the relationships between
teachers' thoughts and behaviors. Clark and Peterson (1986) argued that 'the
process of teaching will be fully understood only when the two domains
[teachers' thought and actions] are brought together and examined in relation
to one another" (p. 258). A premise of this paradigm was that teaching is a
complex situation. When faced with this complexity, teachers develop their
own simplified version of the situation and act according to that version
(Shavelson, 1983). Therefore, investigating teacher cognitions adds useful
information to the visible behaviors of teachers. Clark and Peterson (1986)
divided the literature on teacher thinking into three main areas: teacher
planning, teachers' interactive thoughts and decisions, and teachers' theories
and beliefs. Each of these areas will be defined, and the findings that are
related to my research questions will be briefly presented.
Planning

The research on teacher planning may be defined on the one hand as "the things that teachers do when they say that they are planning" (Clark, 1983). On the other hand, planning may be defined as the thought processes that teachers engage in both prior to and after classroom interactions. According to Clark (1983), studying planning is challenging because it is both a psychological process and a practical activity. Both perspectives are represented in the literature and both have been investigated through a combination of methods such as retrospective interviews, extensive teacher observations, and thinking aloud, which consists in the teacher's talking aloud while planning. Anchored implicitly or explicitly in one or the other perspectives, research on planning has focused on the amount, types, functions, and models of planning that teachers adopt.

The findings have shown that teachers allocate most of their planning time at the beginning of the school year and they plan mainly units followed by weekly and daily planning (Yinger, 1977). They also develop mental pictures of their teaching called "lesson images," which are incompletely reflected in their written plans (Morine-Dershimer, 1979). Put together, these mental pictures are referred to as "activity flow" (Joyce, 1979). "The activity flow," according to Clark (1983), "encompasses the year-long progress of a class through each subject and the balance of activities across subjects in a school day or week." Research on teacher planning has also revealed that teachers do not plan in a linear way the objective, activity, organization, and evaluation (Placek, 1984; Zadorik, 1975). Findings concerning the
relationships between planning and teaching behaviors have demonstrated that planning does influence the content and sequencing of instruction (Clark & Elmore, 1981). Teachers, however, do not plan the details of instruction such as verbal behaviors because during the interactive phase of teaching the behaviors of the students are mostly unpredictable (Carnahan, 1980). A last point of interest is that most teachers concentrate on content and activities in their planning. Formal objectives or individual characteristics of students are rarely a priority while planning. With regard to planning, this study focuses mainly on the teachers' choices of content and the grounds for their choices.

**Teacher Interactive Thoughts and Decisions**

The second area of teachers' cognition described by Clark and Peterson (1986) is teachers' interactive thoughts and decisions. Some researchers defined a teacher's decision as virtually any cognition that precedes action (Shavelson, 1973). Others used the term to refer to the thoughts associated with the choices between two or more options made by teachers in order to implement a specific action in the classroom (Marland, 1977). In both cases, this research has used the method of stimulated recall, which consists in the teachers' thinking aloud while viewing a videotape of themselves teaching.

An initial finding of this research pertained to the flexibility of teachers during the interactive phase of teaching. Results indicated that teachers have very few alternative courses of action when faced with a specific teaching situation. They may have only one alternative teaching routine (Shavelson and Stern, 1981). In this regard expert and novice
teachers differ (Berliner, 1988). Expert teachers have a repertoire of routines and have demonstrated skills in recognizing the relevant information for their teaching that exists in the environment, both at the pedagogical and content levels (Leinhardt, 1986). Expert teachers are able to differentiate between typical and atypical situations, and in the latter type are able to transform their routinized activities into activities more suitable to the atypical situation (Leinhardt & Greeno, 1986).

Another finding of the research on teacher interactive thoughts and decisions is that, although teachers concentrate mostly on content while planning, during the interactive phase of teaching, their thoughts pertain mainly to the students (Marx and Peterson, 1981). While conducting stimulated recall sessions, researchers reported that few of the teachers' statements related to content, instructional strategies, objectives, material, and time.

Finally, research also investigated the antecedents of teachers' interactive decisions. Teachers make interactive decisions not only in response to students' behaviors, but also in response to other factors. The teacher's cognitive or affective state, and the time or equipment constraint of the environment serve as antecedents for a large part of a teacher's interactive decisions (Forgarty, Wang & Creek, 1982).

The above paragraphs are far from a summary of the findings of the research on teachers' thoughts and decisions. The purpose here is to report the findings that are related to the research questions of this study. With regard to teacher interactive thoughts and decisions, this study focused on how teachers thought about their content and the pedagogical strategies they used during the interactive phase of teaching.
Theories and Beliefs

The last area of teacher thinking research, described by Clark and Peterson (1986), pertains to the theories and beliefs held by teachers. Research indicated that teachers' beliefs about teaching and learning affect their teaching. More specifically, Feiman-Nemser and Buchmann (1985) showed that teachers' beliefs about teaching are related to how they conduct themselves in class. These authors emphasized the importance for teachers to examine their beliefs to avoid incorporating new information or puzzling experience into old frameworks.

More relevant to this study, though less frequently examined than teachers' beliefs on teaching and learning, is the belief that teachers have about their subject matter. According to Grossman, Wilson, and Shulman (1989), teachers' beliefs about their subject matter are as influential as their beliefs on teaching and learning. Wilson (1988) reported that teachers' beliefs about the content they teach influence both what they teach and how they choose to teach it.

On a more general note, Clark (1986) assessed that teachers hold multiple beliefs and that they "switch back and forth among them with remarkable success as the situation warrants" (p. 14). In their review of literature on teachers' theories and beliefs, Clark and Peterson (1986) indicated that even among similar teachers, there is wide variation in teachers' belief systems and that there is often a discrepancy between the
teachers' belief systems and their classroom behaviors. Argyris (1985) referred to this discrepancy as "espoused theory" and "theory-in-action."

Within the literature on teacher thinking, research on teacher beliefs is the most eclectic partially due to the definition of beliefs. Researchers as well as teachers frequently tend to treat beliefs and knowledge indiscriminately. Although beliefs and knowledge have been distinguished in a number of ways (Abelson, 1979; Nespor, 1987), an examination of the recent literature shows that the current tendency among researchers is to put the two together. Grossman, Wilson, and Shulman (1989), for example, admitted that beliefs rely heavily on affective and personal evaluation, and are more disputable than knowledge. However, they recognized that distinctions between the two are "blurry at best" (p. 31). Kagan (1990) also used the terms belief and knowledge interchangeably "in light of mounting evidence that much of what a teacher knows of his or her craft appears to be defined in highly subjective terms" (p. 421).

As a result, Clark and Peterson's (1986) category of teachers' theories and beliefs appears now to have shifted into a more encompassing field, referred to as the knowledge base for teaching, or teacher knowledge (Gideonse, 1989; Macmillan, 1990). For this reason, I limit the presentation of the findings on teachers' beliefs to the above, and now turn to the research on teacher knowledge. Through the rest of the paper, the term teacher knowledge encompasses, as defined on page 8, "all that a person knows or believes to be true, whether or not it is verified as true in some sort of objective or external way" (Alexander, Schallert, and Hare, 1991, p. 317).
Teacher Knowledge Research

Summarizing the findings of the recent and growing literature on teacher knowledge is not an easy task. Stated simply, the studies conducted under this heading aim at investigating the knowledge with which individual teachers operate and share the assumption that teachers know more than they are able to articulate (Schön, 1983; Clandinin, 1985). Through descriptive qualitative studies, current research reflects an effort to identify the nature, form, source, and organization of this knowledge, tacit or not, for teaching. More specifically, research on teachers’ knowledge has used a variety of techniques such as ethnographic participant observation, in-depth interview, stimulated recall, repertory grid technique, heuristics schema, and narrative inquiry. All of these techniques adopt, to different degrees, the position that the emic language of the teachers must be respected in order to remain faithful to the teachers’ own felt sense of what they believe, know, and experience.

According to Wilson (1988), this kind of inquiry is critical. Relating the work of contemporary researchers with research conducted in the previous paradigms, she stated: “Absent a powerful model for what we mean by subject matter knowledge for teaching, any research conducted trying to tie teacher knowledge to student understanding may be as fruitless an enterprise as the presage-product has been” (p. 21). She here referred to the correlational studies that were conducted in the 1970s to establish the degree of relation between student outcome measures and teacher knowledge measures (Elliot, 1972; Saracho & Dayton, 1980). In that research, teachers’ knowledge was
measured in a variety of ways, among them the total number of classes that a teacher had taken in a subject, a teacher's grade point average, or the score obtained on standardized tests or locally constructed tests. Conducted for a decade, this kind of presage-product research did not lead to any significant or conclusive results (Grossman, 1990). Teacher knowledge was positively correlated with student achievement as often as it was negatively correlated (Grossman, Wilson, & Shulman, 1989). This result was puzzling since common sense suggests that teachers who know more about their content should be able to teach more about their subject matter than teachers whose content knowledge is limited.

One reason for such a counterintuitive result is that teacher knowledge should have been measured in a different way (Byrne, 1983). Byrne argued that the disparity among the measures of teacher knowledge came from an inappropriate conceptualization of teacher knowledge. Teacher knowledge encompasses more and is more subtle than the number of credits one has taken or the amount of information one may recall in a multiple-choice test. For Byrne, the measures taken of teachers' knowledge in presage-product research were incomplete. The measures of teachers' knowledge should have captured the pedagogical representation teachers have of their subject matter. To Byrne, past research failed to establish a clear relationship between teacher knowledge and student achievement because researchers should have focused on the teachers' ability to present content in ways that facilitate instruction. Byrne's position on the assessment of teacher knowledge clearly falls within the trend of contemporary researchers on teacher knowledge. Despite a proliferation of different models, taken together the contemporary
research on teacher knowledge reflects an effort to describe and delineate the knowledge helpful to the practitioner while engaged in the act of teaching.

The literature on teacher knowledge indeed suggests a great number of models, but its critical examination is made difficult not only because of the variety of methods used but also because the studies use a variety of terms, which sometimes reflect merely a different semantic label, but other times reflect a different perspective. For example, Elbaz (1983) discussed the practical knowledge of teachers, while Schön (1983) spoke of teachers' reflection-in-action. Leinhardt (1990) focused on craft knowledge, Clandinin (1985) on practical knowledge, Munby (1986) on teachers' metaphors, and Shulman (1986b) on pedagogical content knowledge. An imperfect division can here be made. Some of these studies have focused more on the practical knowledge of teachers, i.e., knowledge in action, which encompasses both cognition and action (Elbaz, 1983; Clandinin, 1985; Schön, 1983). Other studies have focused more on subject matter or content knowledge—in the ways that it is organized, perceived, and interpreted, and on substantive details of what and how much content knowledge is held (Grossman, Wilson, & Shulman, 1989). In the delimited context of this review of literature, I will outline only selected aspects of the influential work of Elbaz in order to illustrate one instance of inquiry conducted on practical knowledge. Then I will develop more fully Shulman's conceptual framework of teacher knowledge, which is most related to my research questions.
Elbaz (1983), through case studies, investigated the structure and content of the practical knowledge of an English teacher. Her work is based on the assumption that "teachers hold a complex, practically-oriented set of understandings which they use actively to shape and direct the work of teaching" (p. 3). Elbaz maintained that teachers exhibit a wide range of experiential knowledge that "is informed by the teachers' theoretical knowledge of subject matter, and of areas such as child development, learning and social theory" (p. 5). Practical knowledge, therefore, is several kinds of knowledge integrated by the individual teacher in terms of personal values and beliefs, and oriented to practical situations.

More specifically, Elbaz's findings pertain to the content, the orientations, and the structure of practical knowledge. Under the heading content of practical knowledge, she distinguished the knowledge of self, of the milieu of teaching, of subject matter, of curriculum development, and of instruction. Under the heading orientation of practical knowledge, she addressed five ways practical knowledge is held and used: situational, social, personal, experiential, and theoretical. Finally, under the heading structure of practical knowledge, she presented the idea of rules of practice, practical principles, and images. For the purpose of this study, the most relevant finding of Elbaz's work is the concept of practical principles. Indeed, the second research question of this study introduces the idea of a central organizing principle of content knowledge, which is related to Elbaz's concept of practical principle, that is, "a general construct, derived from personal
experience, and embodying purpose in a deliberate way, which can be drawn upon to guide a teacher's actions and explain the reasons for those actions” (Clark and Peterson, 1986, p. 290).

In brief, Elbaz conceptualized practical knowledge as the embodiment of experience that encompasses a dialectic relationship between action and thought. Practical knowledge may be tacit, is subject to change, and increases with experience. This view concurs with Connelly and Clandinin (1985), who added that experience is educative only with reflection. Although seemingly paradoxical, this finding coexists with a picture of teachers as intuitive rather than analytical individuals. Berliner (1988) depicted teachers as intuitive. In his theory of the development of expertise, he depicted expert teachers as the ones who have learned through experience what to attend to and what to ignore, as well as to make the appropriate response in a nondeliberative way. For most investigators knowledge of teaching is highly contextualized. They also shared an idiosyncratic view of teachers. In Richardson's (1991) words "the teacher teaches as he or she is" (p. 12).

To conclude this section, it is worth pointing out that Elbaz’s study of the nature of knowledge and ways it is formulated and utilized provides relevant information for my research questions. However, the next section, presenting Shulman's work, even better suited my research questions about teacher knowledge and its relationship to dance teaching.
Shulman portrayed teachers as "thoughtful" professionals who define their knowledge bases in systematic terms. Shulman (1987) was explicit on this point:

The advocates of professional reform base their arguments on the belief that there exists a "knowledge base for teaching"—a codified or codifiable aggregation of knowledge, skills, understanding, and technology, of ethics and disposition, of collective responsibility—as well as a means for representing and communicating it. (p. 4)

He argued that any organization of teacher knowledge should include the following categories: knowledge of learners and their characteristics, knowledge of educational contexts, knowledge of educational ends, curriculum knowledge, general pedagogical knowledge, content knowledge, and pedagogical content knowledge. While much might be said about each of these categories, the broad concept of pedagogical content knowledge deserves particular attention.

[Pedagogical content knowledge] represents the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction" (p.8).

Implicit in this definition of pedagogical content knowledge is an enrichment of the notion of content knowledge. To the lay person, it would seem that content knowledge is just what the future teacher will have to teach. But in the framework of a knowledge base for teaching, content knowledge means more than the "stuff" students are expected to learn. In this broader sense, content knowledge is made manifest not just in what the teachers teach but in the personal internalized understanding they have of why they teach
what they teach. "To think properly about content knowledge," Shulman (1986b) declared, "requires going beyond knowledge of the facts or concepts of a domain." Furthermore, he stated that:

Teachers must not only be capable of defining for students the accepted truth in a domain, they must also be able to explain why a particular proposition is deemed warranted, why it is worth knowing and how it relates to other propositions, both within the discipline and without, both in theory and in practice. . . . Moreover, we expect the teacher to understand why a given topic is particularly central to a discipline whereas another may be peripheral. (p.9)

This concurs with Atkinson, Delamont, and Hammersley (1988) who stated that "the improvement of education would arise not from the introduction of better curriculum schemes but rather from teachers' own development of their craft knowledge through reflection on their practices" (p. 240).

Shulman (1986a) maintained that looking at the knowledge teachers have of their subject matter is a remedy of a fault of the research on teacher cognition. He stated that "among the most serious [faults] has been the tendency to ignore the substance of classroom life, the specific curriculum content and subject matter being studied" (p. 22). According to him, the research on teacher thinking and the research on teacher effectiveness have failed to take into account the specificity of the subject being taught in relation to its pedagogical delivery. These faults have resulted in a new area of research referred to as pedagogical content knowledge, with its own specialized literature. Shulman (1986a) spoke of pedagogical content knowledge as a missing paradigm because research on teaching has established quite a sharp distinction between subject matter and pedagogy. He observed that most research on pedagogical knowledge in the 1980s referred to the broad principles and strategies of classroom management that appear to
transcend subject matter. Redirecting research toward the investigation of pedagogical content knowledge could serve to reverse this tendency of discussing the teaching profession mainly in generic pedagogical terms.

Since its introduction in 1986, the notion of pedagogical content knowledge has attracted numerous researchers from a variety of disciplines, including social studies and history (Wilson, 1988), English (Grant, 1990; Grossman and Gudmundsdottir, 1987; Gudmundsdottir, 1990), mathematics (Carpenter, Fennema, Peterson, & Carey, 1988; Marks, 1990), science (Hashweh, 1987), physical education (Lynn, French, Rink, Lee, & Solmon, 1990; Rosenberg, 1990; Rovegno, 1989, 1990), and visual art (Kowalchuk, 1991). Despite its attention in literature, the notion of pedagogical content knowledge remains somewhat unclear because of its two poles of content and pedagogy (Marks, 1990). This ambiguity led several researchers to adapt the initial definition of Shulman in different ways (Grossman, 1990; Carpenter, Fennema, Peterson, & Carey, 1988). For example, Marks (1990) considered some aspects of pedagogical content knowledge to be rooted in subject matter knowledge. The process of adapting the subject matter for pedagogical purposes is called transformation. Other aspects of pedagogical content knowledge derive primarily from general pedagogical knowledge. The process whereby such generic pedagogical knowledge informs pedagogical content knowledge is called specification. Finally, some aspects are not derived primarily from either subject matter or general pedagogy but instead represent a synthesis. "Because pedagogical content knowledge derives from other types of knowledge," argued Marks (1990), "determining where one ends and the other begins is difficult" (p. 8).
The broadness of the concept of pedagogical content knowledge and the different adaptations done by many researchers makes the presentation of the results of the research conducted to date problematic. However, as a way to illustrate the amorphous nature of pedagogical content knowledge, a brief description of the few studies conducted in the field of physical education is provided.

Rovegno (1989) investigated the pedagogical content knowledge of a female preservice physical education major teaching the specific activity of basketball. The interview data showed that while knowledgeable in terms of biomechanics related to the skill of dribbling, the preservice teacher struggled with teaching the dribble to unskilled children. She lacked the necessary knowledge about how children learned to dribble, how skill in dribbling was developed, and specific techniques for teaching dribbling that are linked to the ways children learn. Rovegno went on to identify four sources associated with the development of pedagogical content knowledge: (a) field experience and field-based methods courses, (b) liberal arts subject matter courses, (c) non-field based content specific methods courses, and (d) courses on the psychology of learning theory.

In another study, Rovegno (1990) investigated how physical education teachers restructure their content knowledge to become pedagogical content knowledge. More specifically, Rovegno looked at the knowledge that seven preservice teachers developed during a field-based elementary physical education methods course. During a semester, the preservice teachers discussed aspects of what they learned and how they learned them. The data including field notes, interviews and documents showed that preservice
teachers thought of pedagogical content knowledge as an important factor of their learning during the semester. The instances of knowledge restructuring suggested that restructuring is enabled by dissatisfaction with old interpretations and recognizing the fruitfulness of new perspectives. Rovegno also found changes in the preservice teacher's relationship with the teaching/learning environment that moved toward increased differentiation and integration.

Lynn, French, Rink, Lee and Solomon (1990) also attempted to delineate pedagogical content knowledge in physical education by examining the knowledge structures of prospective teachers and experts. Knowledge structures of teacher candidates were compared between two major universities and then contrasted with those of experts in the two settings. Ordered tree technique and interviews were utilized for the data collection. The 24 subjects were asked to express the concepts they could associate with pedagogical content knowledge. Then, they were asked to draw a network of the relationships between those concepts. Quantitative measures and qualitative analysis revealed that experts from both universities displayed superior depth and organization of knowledge structures. The qualitative analysis also revealed differences between the two settings in terms of the content of the knowledge structures. Different terminology reflected the different philosophy of the respective programs.

Also interested in how pedagogical content knowledge is acquired in the field of physical education, Rosenberg (1990) focused on the differences existing between trained and untrained physical education teachers who have varying amounts of teaching experience. He interviewed eight teachers of
volleyball after showing them a videotaped lesson. Adapting Shulman's notion of pedagogical content knowledge to fit the particular skill of teaching a serve in volleyball, Rosenberg stated that "when teaching the serve in volleyball, a teacher with pedagogical content knowledge would have to combine a knowledge of biomechanically correct technique, knowledge of the learner and common errors associated with learning the serve, with a knowledge of appropriate tasks for each developmental stage of the learning process" (p. 45). Consequently, to assess pedagogical content knowledge, Rosenberg looked at six teaching principles and practices associated with skill acquisition: (a) proper technique, (b) common performance errors, (c) correction procedures, (d) learning progression, (e) developmental levels, and (f) appropriate practice activities. Among the findings is that trained and untrained teachers differed on what constituted proper technique and how to allow for individual differences when teaching a volleyball skill. The untrained teachers believed that there were a variety of correct techniques to achieve a serve and that teachers shouldn't necessarily impose one "right" way of doing it, though they recognized that there were generally correct principles and that individual differences that deviate from these principles might not produce desirable results. The trained teachers did not raise the issue of individual technique differences. Rosenberg explained that difference by the different context to which the two groups of teachers had been exposed. The untrained teachers, who specialized in volleyball, had been in environments where individual differences of advanced players were encouraged since they produced the desired result. Trained teachers, however, deal with students who are less skilled and are concerned with introducing general proper technique. From
the results, Rosenberg concluded that, "as in the case in other disciplines, differing views about how to present subject matter to students emerge from complex and highly personal beliefs about learning" (p. 87). With regard to experience, the finding showed that experienced teachers are more aware than novice teachers of the relationship between the content and the developmental level of learners. They suggested a flexibility in teaching that would allow for varied teacher actions, whereas novices were less inclined to modify their usual way of teaching in relation to the skill level of the learner. Rosenberg's finding that experience plays a critical role in the development of pedagogical content knowledge is consistent with the findings of the research on pedagogical content knowledge in the school disciplines.

The studies of Lynn, French, Rink, Lee, and Solomon (1990), Rosenberg (1990), and Rovegno (1989,1990) illustrate the broadness of the notion of pedagogical content knowledge, which, as mentioned, makes problematic an exhaustive presentation of the results of the research conducted in the school disciplines. The difficulty, however, comes also from the nature of the notion of pedagogical content knowledge, which does not lead to generic results. Pedagogical content knowledge is highly contextual. A particular pedagogical content knowledge for the teaching of mathematics, English, or dance is hardly transferable from teacher X to teacher Y because pedagogical content knowledge is grounded in the particular. Each teacher develops his or her own pedagogical content knowledge that presents different characteristics with a particular group of students in a specific teaching situation. Identifying the pedagogical content knowledge of many individuals is,
however, helpful because it may yield the identification of similar patterns in the ways different teachers develop their pedagogical content knowledge.

Teaching Dance Research

Research on dance teaching follows the path of research conducted in core school subjects, but is much less developed. To my knowledge, no research on dance teacher thinking or the knowledge base for dance teaching has been conducted so far. "Research in dance teaching," pointed out Gray (1989), "has to date been restricted to isolated studies of teacher behavior and limited investigations of students' attitudes and achievement" (p. 9).

An examination of the literature reveals that most of the research has described the teachers' and students' behaviors in technical classes. Technical classes of modern dance, jazz, and ballet have been observed using instruments specifically designed for dance or adapted from academic or physical education classes (Brunelle & De Carufel, 1982; Fortin, 1988; Gray, 1984; Lord, 1982; Lord & Petiot, 1985, 1986; Piéron & Géoris, 1983; Piéron & Delmelle, 1983).

Results have shown that dance teachers rely mainly on three main behaviors during technique class. In order of quantitative importance, they are: "to support or guide students' motor activities, to prepare for motor activities, and to provide feedback" (Lord & Petiot, 1985). This last behavior has been investigated more thoroughly in three studies (Brunelle & De Carufel, 1982; Fortin, 1986; Piéron & Delmelle, 1982). Results of these studies
have shown that dance teachers provide mainly verbal and prescriptive feedback.

With regard to correlative studies, one study was aimed at identifying the relationships between dance teachers' behaviors in recreational jazz classes and the amount of academic learning time provided (Lord & Petiot, 1985). The results did not show any significant relationships. The authors explained that this finding is probably related to methodological choices that they made, such as having too many teacher behavior categories to allow clear patterns to emerge. Finally, a few experimental studies have been conducted to investigate if dance skill performance was enhanced by the use of verbal cues based on Sweigard's imagery (Hanrahan & Salmela, 1990; Minton, 1981). Their results showed that postural alignment was improved.

In summary, most of the research on dance teaching has been descriptive and no generalizations should be made on the basis of the current body of knowledge. Lord (1986) pointed out that in order to eventually develop research-based dance teacher education programs, dance researchers should continue to adopt research approaches that are the most productive in general pedagogy. In that regard, she recommends the adoption of qualitative methodology.
CHAPTER III

METHODOLOGY

The purpose of this study was to describe the ways two experienced dance teachers think about the teaching of modern dance and its relationship to their teaching practice. Qualitative methodology, more specifically case study, was chosen as the most appropriate means to that aim. This chapter will first address the rationale for such a choice, then will discuss typical issues of qualitative methodology. Various aspects of the data collection will then be described. Finally, a descriptive account of the data analysis will be provided.

Qualitative Method

In this section, the rationale for choosing a qualitative research method is presented. Then the typical issues of qualitative design, sampling, subjects, settings, and entry, are addressed.

Qualitative research is an umbrella term that encompasses ethnographic, participant observational, case study, symbolic interactionist, phenomenological, constructivist, and interpretive research strategies. According to Erickson (1986), these research strategies "are all slightly different, but each bears strong family resemblance to the others" (p. 119). He specified that "the key feature of family resemblance among the various approaches [is the] central research interest in human meaning in social life..."
and in its elucidation and exposition by the researcher" (p. 119). Bogdan and Biklen (1982) specified that qualitative data are termed soft, that is, "rich in description of people, places and conversations, and not easily handled by statistical procedures. . . . [Qualitative researchers] tend to collect data through sustained contact with people in settings where subjects normally spend their time" (p. 2).

According to Jörgensen (1989) a qualitative method is especially appropriate when little is known about a phenomenon. In the present case, the pedagogical content knowledge of experienced dance teachers has never been studied. Qualitative methods are also useful when the research focuses on a process of "how something happens rather than on the outcomes or results obtained" (Patton, 1990, p. 94). In the present case, I was interested in knowing how my subjects acquired their pedagogical content knowledge and how this knowledge was manifested in their teaching.

In a qualitative design, data about pedagogical content knowledge emanates from the perspective of the teachers. As Cochran-Smith and Lytle (1990) stated so perceptively:

Limiting the official knowledge base for teaching to what academics have chosen to study and write about has contributed to a number of problems, including discontinuity between what is taught in universities and what is taught in classrooms, teachers' ambivalence about the claims of academic research, and a general lack of information about classroom life from a truly emic perspective. (p. 2)

Collecting data from an emic perspective is important, but so is reporting the findings. A strength of the qualitative method lies in the fact that reports of a qualitative study can usually be understood, at least in general terms, by any educated layperson (Locke, 1989). As Cross (1990) pointed out, dissemination is
an integral part of research. For him, dissemination meant "making sure that information makes sense to the people we hope will use it. It means presenting information as simply as possible, but no simpler. It means thinking of our findings from the users' perspective" (p. 23).

Case study has been chosen as the particular qualitative design for this study. "A case study is a detailed examination of one setting, or one single subject, or one single depository of documents, or one particular event" (Bogdan & Biklen, 1982, p. 58). Patton (1990) pointed out that the value of case studies is unquestionable because the case method enhances the understanding of educational phenomena by providing a depth of knowledge not obtainable by other means. Case studies, according to Shulman (1986b), are worthwhile in teacher education, not so much as the report of an event or incident but as a means of illuminating both the practical and the theoretical.

**Sampling**

Qualitative researchers focus on relatively small samples, even single cases (Eisner & Peshkin, 1990; Miles & Huberman, 1984; Patton, 1990), because the shared goal of qualitative inquiry is the in-depth description and understanding of meaningful cases. In the present study, I chose to have two subjects. That is because conducting only one case study might be constraining and fall into what Firestone and Herriott (cited in Schofield, 1990) have called "radical particularism" (p. 212). On the other hand, I chose not to have a large number of cases that, for some authors (Noblit & Hare, 1988; Yin, 1989) would have the positive aspect of generalizability through the
comparison of the cases. "Studying large numbers of sites," pointed out Schofield (1990), "undercuts the depth of understanding of individual sites, which is the hallmark of the qualitative approach as it has come to be understood" (p. 214). Faced with an inevitable trade-off between breadth and depth, I chose the increasing depth of description and understanding made possible by a small number of cases. As McCracken (1988) says, ". . . . less is more. It is more important to work longer, and with greater care, with a few people than more superficially with many of them" (p. 17). Having two subjects allowed me to contrast my data while keeping a manageable amount of qualitative data. Although I included a brief cross-case analysis of my two subjects in the conclusion chapter, the variations in individuals is my main focus, and I make no claim of generalizability.

**Subjects**

A critical decision in qualitative research is the choice of the subjects. Qualitative researchers typically engage in purposeful sampling because, in Patton's words, "the purpose of purposeful sampling is to select information-rich cases whose study will illuminate the questions under study" (Patton, 1990, p. 169). Obviously, having a small sample increases the importance of selecting the persons who will yield the most information and have the greatest impact on the development of knowledge. Because my interest was in examining the nature of the pedagogical content knowledge of dance teachers, it seemed appropriate to choose expert dance teachers or, at minimum, reasonably successful and experienced practitioners. Inspired by Leinhardt
(1990), who investigated the craft knowledge of expert teachers, I selected my subjects based on their reputation, i.e., informal evaluation from supervisors and peers. In the dance community, such evaluation is implicitly made public. Indeed, "master teachers" (to use a term common in the dance community) are well known because they teach workshops in a variety of schools across the country. It is the tradition among dance performers, choreographers, and teachers to acknowledge in their summary the names of those master teachers with whom they have studied.

For this study, two experienced female dance teachers were chosen. The two also had experience in academic settings. In addition to having traditional training in modern dance, both subjects had backgrounds in dance science. One had completed a master's degree in dance kinesiology, and the other was a physical therapist. Both also had prolonged experience in somatic practices. One subject was a Certified Laban Movement Analyst and teacher of Body-Mind Centering, while the other had studied Body-Mind Centering, Alexander technique, and Ideokinesis.

With such backgrounds, the subjects were not representative of typical modern dance teachers. Dance science and somatic practices are recent developments in the dance community. A growing number of dance programs in academic settings, as well as recreational and professional settings, are including similar training in their programs (Wilson, 1990; Dunn, 1990). According to Myers (1992), this tendency should continue in the future. Of course, studying a phenomenon that is not representative of "what is" in the present but representative of "what may be" in the future is useful to the extent that approximation of the future is right (Schofield, 1990). "All
education springs from some image of the future," maintained Toffler (1974). If the analysis of the differences between the present and the future is accurate, studying the "what may be" enhances the possibility of having the greatest impact on the development of knowledge. According to Patton (1990), in many instances more can be learned from intensively studying unusual cases than can be learned from portrayal of what the average case is like. Thus, I chose a purposeful sampling because I thought that these subjects were the ones I could learn the most from, considering that pedagogical content knowledge of dance teachers has never been investigated, and considering the recent integration of scientific and somatic components into more traditional dance teaching. The increased attention given to scientific and somatic concepts of human movement reveals an important change in the conception of relevant knowledge in dance teaching that may best be investigated through the conduct of a limited number of case studies.

**Settings**

The settings for this research were two highly respected summer dance festivals. The entire corpus of data was collected during the summer 1991. I spent the beginning of the summer with one subject in a dance festival on the southeast coast and the other part of the summer with the second subject in a dance festival on the northeast coast. The two summer dance festivals were very similar.

Although one had a shorter duration than the other (six weeks compared to three), both may be considered very intensive. Both offered a
variety of daily dance classes by a faculty of outstanding dance teachers and internationally acclaimed professional artists. Both festivals enrolled students age 16 and older, with a minimum of two years of continuous dance training and the ability to dance at an intermediate level. All students could apply for academic credits. For this reason, the sites qualify as academic/half-professional settings. According to Jorgensen's (1989) framework, academic settings may be described as visible and relatively open settings. They are visible because information about dance classes in the universities is available to the general public and they are relatively open because before conducting an overt observation of a dance class, it is common practice to seek the permission of the teacher.

Entrée

A major factor affecting the way one gains entrée into a setting depends on one's emic or etic status. Considering the topic of this study, I am both an insider and an outsider. On the one hand, I am an insider because I know the culture of the dance community. I have danced in professional companies and for the last six years I have taught in a university dance department. I also studied a variety of somatic practices, namely Feldenkrais, Body-Mind Centering, Alexander, Ideokinesis, and Bartenieff Fundamentals. On many occasions I studied in intensive dance festivals. According to McCracken (1988), being an insider calls for particular vigilance while conducting research. "The intimate acquaintance with one's culture can create as much blindness as insight. It can prevent the observer from seeing cultural
assumptions and practices" (p. 12). On that point, I followed Jorgensen's (1989) recommendation to keep a reflexive journal. On the other hand, I sometimes took on the status of outsider because of my interest in theoretical research. I am academically oriented while the majority of dance students and teachers are studio oriented.

It is with this experience and knowledge base that I contacted the two subjects in February 1991 at the first symposium on the Science and Somatics of Dance held in Philadelphia. I knew both of them from two workshops I took with them in 1989. During the symposium, I explained the project to each of them separately, and took particular care to explain the expected involvement of both parties, researcher and subjects. We talked about different issues, making sure that clear communication channels were established at the outset of the research. I also asked them to fill out the protocol of the Human Subjects Review Committee of The Ohio State University, in which confidentiality and anonymity are assured to the subjects. In order to build good rapport, I sent a thank you note the week following the symposium and a letter providing detailed information about the study (see Appendix A).

Minimizing the physical, psychological, or social risks and informing the subjects about the research are the two basic ethical issues of qualitative research (Erickson, 1986).

According to Grant (1990), the negotiation of a collaboration between the subject and the researcher is a crucial phase leading to the success of a qualitative investigation. Because human settings are to some extent political (Jorgensen, 1989), I also sought written permission to conduct the research from the directors of the summer dance festivals in which my subjects taught
Having formal permission to conduct the research from the directors of the festivals allowed for final approval from the Human Subjects Review Committee. I made sure that I respected the hierarchical structure of the settings selected as well as the requirements of The Ohio State University with regard to the employment of human subjects in research.

In exchange for their commitment, I offered to the subjects the transcripts of the interviews, a copy of the final report, and a copy of the video I made of their teaching. Actually, many forms of reciprocity developed between the subjects and me throughout the unfolding of events at the study site, such as recording on videotape the dance concert of one respondent and providing her feedback. During the data collection, both subjects mentioned that they felt less isolated due to my presence and reported that they learned from being interviewed. For example, the first subject said:

I like the interviews. I just find them refreshing because no one really, for years I never knew what it was I did. I don't know what it is I do and so for someone to question me is very different. . . . It helps me in further defining my work. (G.I.6)

In an interview at the beginning of the festival, the second subject expressed a similar point of view:

I enjoy the festival but I'm a little lonely here. If it weren't for you I feel like I wouldn't really be having even interesting conversations yet. There are too many people. So I really appreciated this [the study]. The work you do gives this whole festival another level. (M.I.1)

With both subjects, a good rapport was maintained from the beginning to the end of the study. Throughout the study a regular correspondence was exchanged between them and me. In my reflexive journal, there are frequent entries of feeling a responsibility to describe as accurately as possible their teaching while being respectful and critical at the same time.
process, I remembered Patton's (1990) caution about the importance of establishing a rapport that does not undermine the researcher's neutrality concerning what the subjects tell to the researcher. "Rapport is a stance vis-à-vis the person being interviewed," he stated. "Neutrality is a stance vis-à-vis the content of what that person says" (p. 317).

Data Collection

The techniques used to collect data for this study mainly derived from ethnographic methods (Spradley, 1979, 1980) and from methods most commonly used in research on teacher thinking (Clark & Peterson, 1986; Borko & Niles, 1987). More precisely, data for this study were collected from the following techniques in order to provide complementary data:
- observations,
- semi-structured interviews,
- stimulated recall,
- documents,
- students' questionnaires, and
- reflexive journal.

Observations

The first question to consider about observational strategy is how long to observe. There seems to be an agreement among qualitative researchers that when no more relevant information is brought by the addition of
instances, the length of observation is appropriate (Patton, 1990). In this study, I observed all the classes that the subjects taught for the entire duration of the two dance festivals. This allowed me to collect data on the beginning, middle, and end of their programs. It did not matter that much to me that the duration of one summer dance festival was six weeks for one subject and three weeks for the other subject. The crucial aspect for me was to gather data on the entire duration of their teaching.

I observed a total of about 42 hours for one subject and 27 hours for the second subject. Each observation was conducted for a full class period and field notes were written on an observational sheet developed during a pilot study (Fortin, 1990). Appendix C includes this observational sheet. All classes were audiotaped for a total of 60 tapes of 90 minutes. Prior to the start of each class, I set the recording material and filled out the top portion of the observational sheet to identify the subject, the date, and the number of students. Then, one observational sheet was used to describe each task observed in the class. I titled each task using either the subject's own terms or a personal mnemonic term. Because of the physical nature of the tasks, sketches were often added to increase clarity. The production of narrative accounts of the tasks included descriptions and quotations from the teacher observed. To assure a verbatim record of the teachers, all classes were recorded on an audiotape or videotape. It happened that I lost some portions of data when the subjects demonstrated tasks on the floor and removed the cordless microphone that they were wearing. In those instances, I asked them to put the microphone on the floor close to the location of their demonstration. The duration of each task was clocked and registered using a chronograph.
Other elements of the observations included general reactions of the students and the spatial organization of the class. As suggested by Schatzman and Strauss (1973), the field notes also included an analysis section in which methodological and theoretical notes were recorded.

Throughout the data collection, my involvement as an observer varied. The literature on qualitative research suggests combining observation and participation in different ways (Spradley, 1980). In participant observation, the researcher shares as intimately as possible the life and activities of the setting. In passive observation, the researcher observes and records what goes on and does not interact with other people. Though my most frequent type of involvement was to observe passively, with each subject I hired someone occasionally to record the lesson on video, which allowed me to participate fully as a student. I also experimented with what Spradley (1980) referred to as "moderate participation," that is, maintaining a balance between being an insider and an outsider, between participant and observer. The focus of my research being the teacher's thoughts and behaviors, being an insider—"going native" in Spradley's terms—meant taking the role of the teacher rather than the students. I was fortunate enough to experience this with my first subject. On the tenth day of the data collection, she had to leave town. I offered to teach the class for her, an offer that she accepted enthusiastically. I also suggested the idea to the second subject, but the short duration of the festival, three weeks, did not allow the realization of this project. Each type of participation had different influences on the data collection. I will address those in the final chapter when reflecting on the methodological issues.
Semi-Structured Interviews

The literature on qualitative research suggests that the appropriate number of interviews required to reach data saturation is determined by the point at which no new data are found (Spradley, 1979). In this study, however, the number of interviews was mainly determined by the availability of the subjects. Five interviews of approximately one hour were conducted with each subject in a variety of locations. Fortunately, this allowed for exhaustive coverage of the research questions.

The interviews, all audiotaped, were based on a semi-structured interview guide. I chose to use open-ended questions, which minimize the imposition of predetermined responses to enlighten various and unexpected aspects of the respondents' knowledge and beliefs about modern dance teaching. An example of a semi-structured interview guide, inspired by Patton (1990) and Spradley (1979), is presented in Appendix D. I spent an average of two hours preparing each interview guide because I wanted to master Patton's (1990) concept of truly open-ended questioning. In the pilot study prior to this study (Fortin, 1990), I realized the importance of the interview preparation. Prior to this study, I also took two methods classes in which I was specifically trained and supervised while conducting interviews. I was thus very sensitive to the quality of the interviews. For example, questions might appear to be open-ended, but on close inspection they actually presuppose which dimensions of feeling or thought will be salient for the interviewee. Patton (1990) warned that, "the truly open-ended question allows the person being interviewed to select from among that person's full repertoire of
possible responses" (p. 296). Patton also distinguished singular from multiple questions. He suggested the use of questions that contain only one idea.

While some interviews allowed the subjects to speak in generalities, others required them to be more specific. Decisions made throughout a qualitative research depend on the unfolding of the events (Spradley, 1979). For that reason, I did not have five predetermined interview guides at the outset of the study. Each week I determined the focus of the interview. Examples of topics for the interviews include subject's background, teaching objectives, class planning, students' evaluation, management of class, and conception of dance. Having an interview guideline helped to keep the interviewees focused while I remained flexible to what would arise spontaneously. I followed Erickson's (1986) recommendation "to begin observation and interviewing in the most comprehensive fashion possible. That is because in fieldwork one never considers a single system level in isolation from other levels" (p. 143). A wide-range view is needed to be able to make the connections among levels.

**Stimulated Recall**

Stimulated recall sessions consisted of watching a lesson that had been videotaped and inviting the subjects to talk about what they had been thinking about while they were teaching (Clark & Peterson, 1986). During the data collection, I had one stimulated recall session with each subject. The following instructions were given to both subjects:
Can you verbalize what you were thinking about while you were teaching? Do not censure. You can also talk about anything related to what you see or what you're experiencing as you are viewing it. You can stop the video at any time or go backward if you want to talk more about something specifically. I may do the same thing to ask you to comment on specific events.

Prior to the stimulated recall session, I had made a time log of the tasks of the class, so that the subjects could move back and forth if they wanted to compare different tasks. Throughout the stimulated recall, I also often prompted the subjects on specific aspects of their pedagogical content knowledge. With the second subject, I made some adjustments. I had selected a few tasks on the videotape and prepared specific questions pertaining to the respondents' thinking processes regarding those tasks. In other words, the initial open-ended questions were complemented by more focused questions. The reasons for these methodological adjustments will be addressed in the final chapter.

**Documents**

Documents such as planning sheets, advertisement pamphlets, and articles were also collected to extract information concerning the pedagogical content knowledge of the subjects. Those documents were collected or copied with the permission of the subjects. The first subject even offered her personal diary, which reflects the quality of the rapport between us over the time of the data collection.
Students' Questionnaires

A student questionnaire was distributed at the end of the festival. The questionnaire was developed following Flanagan's (1954) guidelines of the qualitative methodology of the Critical Incidents Technique. This technique allows for collecting participant descriptions of behaviors that are crucial elements of specific situations. In the context of the study, the questionnaire was developed with the view to obtaining information relative to two types of incidents: a description of situations in which the students improved their efficiency as dancers and a description of situations in which they did not improve their efficiency as dancers. Students were asked to provide specific details of the teacher's behavior, that is, her wording and her actions, rather than personal opinions, intuitions, or judgments. The students' questionnaire is presented in Appendix E.

I planned the questionnaire at the outset of the research though the motivation for doing so was not clear. Past research on pedagogical content knowledge did not include data from the students' perspective. However, it seemed to me that pedagogical content knowledge is ultimately determined by the effect it has on the student. I had the hunch that collecting data from the students' perspective would be helpful to understand the ecology of the class. Throughout the data analysis, I indeed came to realize the centrality of collecting data pertaining to the students. At the time of the data collection, however, I considered this data source only peripheral to my research questions and did not know if I would use it in my data analysis.
Reflexive Journal

The reflexive journal is not a primary means of data collection as are the observations, interviews, stimulated recall sessions, and documents. With the exception of notes following informal interviews, the reflexive journal did not contain data to answer the research questions per se. However, in qualitative research, the researcher becomes a major research instrument and, as Spradley (1980) stated, "making an introspective record of fieldwork enables a person to take into account personal biases and feelings, to understand their influences on the research" (p. 72). Holly (1984) distinguished between a log, a diary, and a journal. A log is simply a record of performance, a diary is a more personal and interpretive form of writing, whereas a journal serves both purposes. "[A journal] is a reconstruction of the experience, and like the diary" stated Holly (1984), "has both objective and subjective dimensions, but unlike most diaries there is a consciousness of this differentiation" (p. 12).

I kept such a journal from the moment of the solicitation of my subjects to participate in the study until the completion of the case narratives. Actually, the reflexive journal is divided into four sections, which coincide with the four phases of the study: (a) preparation of the study, (b) data collection for the first case, (c) data collection for the second case, and (d) data analysis and reporting of the findings. During the data collection, I wrote for about 30 minutes each day whereas there were weekly entries for the other phases. During the preparation phase, the journal consists mainly of summaries and quotations from literature relevant to my topics. During the
data collection, it contains mainly a record of my ideas, feelings, mistakes, confusion, and intuition. It represents the personal side of the fieldwork. During the last phase, it mainly includes notes about the sequencing of the decisions made throughout the data analysis and the rationale for them. It also contains comments after each peer debriefing session. The reflexive journal was handwritten during the first and last phase of the study, whereas it was typed on a word processor during the data collection.

Analysis of Data

The challenge of qualitative research is to make sense of massive amounts of raw data. In this study, I proceeded according to three phases. First, I organized the raw case data into a manageable and accessible case record. Second, I inductively identified a categorical system of analysis. Third, I proceeded to the writing of the case narrative. In this section, each phase will be described.

Case Record

The organization of the raw data into a case record was necessary to facilitate the further development of an inductive categorical system of analysis to answer the research questions. The first step was to expand the raw field notes of the observation by adding selected verbatim remarks of the teachers. Two to three hours per day were devoted to reading the original field notes and expanding them by listening to the audiotapes that were played on a
foot-operated transcriber. As researchers have recommended (Erickson, 1986; Spradley, 1980), I tried as much as possible to complete the expanded field notes before returning to the field for further data collection. However, due to family illness, I did not have the time to do so during the last eight days of the data collection with the second subject. The decision was made to record the classes on videotape. Having a videotape in addition to an audiotape allowed me to expand the field notes with accuracy after the data collection was completed. A database management microcomputer program, FileMaker Pro, was used to create the case record of the observational data because of its capacity to classify and retrieve pieces of information easily. A coding system was developed to identify each task of the lessons. Figure 2 shows the code used throughout this study to identify the different tasks of the lesson observed.

First initial of the subject:  Gienna (O)
Type of data:  Observation (O)
Week of the data collection:  First week (1)
Day of the week:  Wednesday (3)
Task number in the order of the lesson:  Tenth task (10)
G.O.1.3.10

Figure 2: Coding systems for observational data.

With regard to the interviews and the stimulated recall sessions, all audiotapes were transcribed by a professional secretary. I reviewed the
transcripts while listening to the tape recording to verify the accuracy of the transcripts and to correct emic terms. The coding system identifying the interviews is shown in Figure 3.

Figure 3: Coding systems for interview data.

The documents were also coded in a manner similar to the observational and interview data. A separate file was maintained for each set of documents. Appendix F presents the coding system for the 22 documents collected from the two respondents. As an example, Figure 4 shows the coding system for the planning sheets.

Figure 4: Coding system for the planning sheets.
In brief, the case record included the expanded field notes of each lesson printed and assembled in two ring binders, one for each subject. There were a total of 117 and 75 pages of expanded field notes for the first and second subjects respectively. A sample of the expanded field notes of the lessons is presented in Appendix G. The case record also included the transcripts of the interviews and stimulated recall sessions. The transcripts were filed chronologically and assembled in a ringbound folder of 162 and 109 pages for the first and second subjects respectively. Another component of the case record was the reflexive journal, which has already been described on page 52. Finally, the case record that served for the data analysis encompassed the students' questionnaires and the various documents. Appendix H includes samples of the planning sheets for both subjects.

**Inductive Categorical System**

The first decision made in the development of inductive categories was, as suggested by Patton (1990), to conduct the analysis for each subject before establishing comparisons between the two subjects. I completed the analysis of the first subject before starting the analysis of the second subject. The process of analysis was similar for both subjects.

As is common in qualitative research (Patton, 1990), analysis occurred concurrently with the data collection. During the observation in the field, I often noted comments that became or that led to the creation of the categories for analysis. For example, on the fourth day of the data collection with the
second respondent, I wrote: "Why are the students so confused? Is it because she did not break down the combination at a good place? Is it because the sequence involves mainly three-dimensional movements? Is it because the tempo is too fast? Is it because the rhythm shifts from five to seven counts? Is it because of new vocabulary on the floor? Is it because they don't understand her vocabulary 'to experiment with their bones'?" That led me to reflect on the clarity of instruction in regard to the different tasks, which became a key point in the analysis. Because of the time frame of the data collection, concurrent data collection and data analysis was limited. Various insights were recorded on the observation sheet or in the reflexive journal but were not examined, developed, or compared in any manner.

The data analysis per se really began after the case record was completed, though the period devoted to the classification and labeling of the data set provided an "intimate acquaintance" with the data, which is of prime importance in qualitative data analysis. After the case record was completed, time was devoted to rereading the entire case record including all documents acquired at the sites. Since the amount of data was enormous, I decided to begin the development of the categories of analysis by focusing mainly on the observational data. To reduce even more the quantity of data for this early stage of analysis, I considered only half of the observations, selecting data from the beginning, middle, and end of the teaching program. From this corpus, I grouped tasks into clusters according to their similarities. This process of looking for recurring themes was applied for each research question. Initially, I thought that I would use the data-based management system for this but I preferred using a spiral notebook because I could be in
visual contact with more information at the same time. In other words, while reading the different tasks of the lessons, ideas on a similar dimension that answered a research question were grouped together and written under the appropriate section of the spiral notebook divided into six sections corresponding to the six research questions. Though indispensable for providing an overview of the material, that process resulted in too many ideas for categories with a messy accumulation of subcategories and task examples. To order it, I changed the strategy and went back to the microcomputer. Under temporary headings of analytic categories, I listed numerous examples of tasks and wrote my initial interpretation of their relationships and discrepancies. The headings and groupings changed as necessary to accommodate new elements. The advantage of the microcomputer in this effort was simply that the categories could be renamed, narrowed, and expanded very easily, and that examples and quotations could be entered and modified quickly.

During that stage of analysis, I decided to combine two research questions into a single question. Qualitative researchers (Patton, 1990) recommend being sensitive to the internal logic of the data and not imposing any fixed and rigid frameworks. The original questions, "How do dance teachers communicate the tasks and how do they react to the performance of these tasks by their students?" and "On what aspect of the content is time actually spent?" were integrated into the question "How is the content made manifest through learning tasks?" From the seven subquestions presented in my research proposal, the current study therefore encompassed only six subquestions.
The interim categorical system completed, I verified its accuracy by checking with the rest of the observational data. I also tested my categorical system by going through the corpus of the data looking for what Erickson (1986) refers to as key linkages. "The key linkage is linking in that it connects up many items of data as analogous instances of the same phenomenon" (p. 147). My process of analysis at that second stage may be best described as a flow back and forth between the observational data and the other data sources while keeping in mind the temporary character of the categories developed. As recommended by Erickson (1986), at that stage of the data analysis, flexibility was still important to avoid premature typification while developing the inductive categories. I pursued the search for a satisfying system of analysis until there was evidence from all the data sources to substantiate my categories. That did not present problems. Usually, a category that emerged in the observational data was as strong in the documents. That coherence between the different data sets confirmed that the category system was accurate and complete.

It is important to note that at that stage I also looked for discrepant cases (Gubz, 1981). During data analysis, the qualitative researcher must eliminate data that are irrelevant, but at the same time must incorporate atypical data that may be crucial for answering the research questions. Miles and Huberman (1984) reported the importance of investigating rival explanations and making contrasts and comparisons. In this study, when not satisfied with a category of analysis, I went back to the raw data. For example, I initially developed a category labeled imagery. The category, however, seemed to encompass more subtle dimensions than I was able to capture with the
expanded field observations. Therefore, I selected from the expanded notes a sample of five instances that I had labeled imagery and listened to the audiotapes, then transcribed those five episodes to produce a detailed written record, which facilitated an indepth analysis of the instances and proved to be fruitful. From the general category labeled imagery, I ended up distinguishing among visualization, metaphorical language, and analogical language tasks.

The last stage of analysis related to the development of the categories consisted in coding the entire corpus of data according to the definitive categorical system. The same pieces of information were often multicoded because they related to more than one research question.

The same data analysis process occurred with the second subject. It went faster since there were less observational data, the program of the second subject lasting three weeks compared to six weeks for the first subject. In the second case I searched for inductive categories from a simultaneous examination of all the data set. I was also able to move more freely from one research question to another. After reading the entire corpus of data, rather than using a spiral notebook, I used a 26-inch by 18-inch sketchbook pad on which I noted the results of brainstorming for different categories to answer the six research questions. A visual display of examples, quotations, and temporary labels for categories, underlined with different colors and related by a complex network of arrows, proved to be efficient for rapidly developing a satisfactory category system. As for the first subject, after checking and coding the entire corpus of data with the inductive system, I turned to writing of case narrative.
Case Narrative

The case narrative, the holistic portrayal of each subject, included information accumulated through the entire case record. Actually, the descriptions and quotations presented in the case narratives are the result of an additional reduction of the case record to what I refer to as the concentrated case record. After having coded the entire corpus, I selected descriptions and interpretations that best illustrated each category of analysis. From this concentrated case record, I made the final selection of the most convincing descriptions and quotations for inclusion in the case narrative. In choosing what descriptions and quotations I would include in the case narrative, I often faced the dilemma of selecting the most succinct or interesting version of the same idea. Qualitative researchers often mention this delicate tradeoff involved in the writing of the case narratives. The report of the findings must indeed include "thick description" (Geertz, 1973) and be convincing yet must be succinct enough to maintain narrative flow.

The major decision about what and how much "thick description" to include in the case narrative was related to another dilemma, the presentation of interpretations. Indeed, "thick description" sets up the context for possible interpretations. According to Patton (1990), the report should "provide sufficient description to allow the reader to understand the basis for interpretation and sufficient interpretation to allow the reader to understand the description" (p. 430). Thick description connects the individual cases to larger issues. In this study, interpretations served as the linkage between the individual case and broader concerns of pedagogical content knowledge and
dance teaching. Because description and interpretation go hand in hand, I decided to present them together in the same chapter for each case study, distinguishing them by using standard and boldface type. With the exception of the sections Summary and Synthesis of Findings, boldface type was used when interpretations, theoretical information, or my personal point of view were presented.

Trustworthiness

Guba (1981) has transposed the traditional criteria of reliability and validity from the quantitative paradigm to the concept of trustworthiness for the qualitative paradigm. This transposition has facilitated an understanding of the different paradigms in what Shalman (1986a) has termed the "Great Conversation" (p. 9). Trustworthiness, the degree to which the findings are worth attention, relies on assumptions different from the ones held by quantitative researchers. For the 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. 165)

In this study, trustworthiness was established by member checks, peer debriefing, and triangulation (Guba, 1981). Before specifically addressing each of them, it is worth saying that a first possible distortion of research findings is the presence of the researcher. The effects of an assessment procedure on the behaviors being assessed has been called reactivity by Kazdin (1979). To combat reactivity, Kazdin suggested observing over a long
period of time and using unobtrusive observational procedures. In this study, I shared the life of the class from the beginning to the end of the program. I assume that this continual presence reduced the possible distortions.

**Triangulation**

Triangulation, the process of converging on a conclusion from different points, is the first means for strengthening the design of this study. According to Denzin (1978), triangulation may be done by using different researchers, different perspectives to interpret the same problem, a variety of data sources, or a variety of methods. In this study, support or disconfirmation of data was obtained through triangulation of method since information from observation, interview, stimulated recall, and document were pitted against each other to cross-check data and interpretations. As mentioned in the previous section, I often drew on data from the interviews and various documents to justify my confidence or skepticism when categories first emerged from the observational data. Most of the time, the coherence of patterns confirmed the accuracy of the categorical system initially based on the observation.

**Member Checks**

Member checks, a term popularized by Guba (1981), consists of going back to the subjects with the information collected or interpretations made in
order to modify them if judged inappropriate. At two points in the study, I requested member checks.

The first occasion for member checks occurred after the interviews were transcribed. I first checked the transcripts against the tapes and made corrections. I then sent to my subjects the copies of the corrected transcripts. I asked them to confirm their accuracy and to add any further thoughts. I specifically asked one subject to fill in blanks in the interview transcripts because some words were inaudible on the audiotapes due to the varied tone of her voice. She sent back the transcripts with the missing information completed. The other subject kept the transcripts since she had no changes to suggest.

A final member check was employed after the case narratives were completed. I sent to each subject their narrative case as presented in chapters four and five. I asked them to correct inaccurate information and to react to the interpretations. I also invited them to provide me with a short statement about what they felt or learned during the data collection as well as how they were affected by reading the case narrative. The letter asking for this member check is included in Appendix I. An important point of that letter was also to request their permission to publish the case narratives with their real identities. I had solicited their participation to the study with the intent of keeping their identity confidential. However, through the data collection and analysis, it seemed to me that they might prefer to have me use their names. Both accepted that I use their names. Both slightly changed the quotes, sometimes to improve accuracy of factual information, other times to reduce the level of criticism of what they initially said in interviews. The quotes
included throughout the dissertation are therefore the result of their editing, in addition to an initial editing by me to remove superfluous words that broke the flow of reading. Both suggested that I define the pedagogical terms I use throughout the narrative cases. I did not send them the first chapters of the dissertation in which the theoretical background from which the study emerges is presented. In the eventuality of the replication of this study, I would have sent the subjects the theoretical framework with the narrative cases so that they could better understand the larger context of the study. One subject sometimes suggested more appropriate verbs or modification in the order of the paragraphs. Most of the time I did not follow her suggestions on the basis that changing the writing style goes beyond the mandate of a member check. On the whole, her comments were, however, more on the descriptions and not on the interpretations. Interestingly, this subject mentioned the difficulty of describing dance activities by the uses of words strictly: "In many cases the lack of visual aids showing my gestures with these quotes is a real problem in conveying my meaning." (G.D.C.)

Peer Debriefing

In addition to member checks, I frequently requested peer debriefing to assist me in analyzing and interpreting the data. Peer debriefing consists of meeting people to challenge both one's interpretation of the data and the methodological procedures adopted. My main source of peer debriefing was my weekly meeting with a member of my doctoral committee. We shared all the research process from the storage of the raw data to the writing of the case
narrative. During the peer debriefing sessions, we exchanged reactions, discussed bias, suggested interpretations and made methodological decisions. In addition to bringing me new insights about my data, those weekly sessions provided me needed emotional support. For example, after the intensive data collection, I lost enthusiasm for the research. Our discussions helped me to see subtleties in the data and recover my interest.

Other peer debriefing sessions were also held irregularly with other members of my doctoral committee. The last kind of peer debriefing consisted of two colleagues who read the narrative cases. One of them was experienced in both qualitative research and dance. She pointed out areas requiring more evidence and engaged in a discussion that helped me to weigh my interpretations.

In summary, the research questions of this study concern the ways two experienced modern dance teachers think about the teaching of modern dance and its relationship to their teaching practice. Case study methodology was chosen as the most appropriate method to answer these research questions derived from the general issue of pedagogical content knowledge. Two female experienced dance teachers served as the subjects. Continual presence during the duration of their teaching program permitted me to collect a variety of data, which were processed to develop inductive categories of analysis for each research question. While in qualitative inquiry the human element of the investigator allows much room for creativity and personal methodological decisions, evidence has nevertheless been collected systematically and analyzed rigorously according to existing qualitative methodological canons.
CHAPTER IV
FINDINGS CASE ONE

The purpose of this study was to examine, through two case studies, the pedagogical content knowledge of two experienced modern dance teachers in two academic/half-professional settings. The research questions concerned the ways the two experienced dance teachers think about the teaching of modern dance and its relationship to their teaching practice. Two major questions and six subquestions derived from this concern.

1. What do these two experienced modern dance teachers know and believe about the teaching of modern dance?
   - What is the source of this knowledge and these beliefs?
   - What are the central organizing principles of their content knowledge of modern dance teaching?
   - On what bases do these two teachers select content for their teaching?

2. What are the teaching practices exhibited by these two experienced modern dance teachers?
   - What is the instructional climate and how is it conveyed?
   - How is the content made manifest through learning tasks?
   - How do the tasks vary within a lesson and among lessons?
Based on the data sources of observation and subsequent field notes, interviews, informal conversation recorded in a reflexive journal, documents, stimulated recall sessions and students' questionnaire, the findings are presented for the first subject in this chapter and for the second subject in the following chapter. However, before answering the research questions for the first subject, a biography of Glenna and a description of her teaching environment are provided in order to provide a context in which to place her teaching practices and her knowledge and beliefs about the teaching of modern dance. Thus this chapter is organized in three parts to answer the three questions: (a) Who is Glenna and what is her teaching environment? (b) What does Glenna know about the teaching of modern dance? and (c) What are the teaching practices exhibited by Glenna? Each question is then divided in sections corresponding to the research subquestions outlined above.

Part 1-Who Is Glenna and What Is Her Teaching Environment?

The following biographical profile of Glenna and the description of the context in which she teaches is intended to serve as a basis for the analysis of the data. By describing Glenna's academic and professional experiences, I begin, to a certain extent, to explore her knowledge of the teaching of modern dance. This specific aspect, however, is examined in detail in the subsequent part of this chapter.
Biography

Glenna, a tall thin woman in her forties, grew up in a dance environment. Her mother, a professional dancer and dance teacher, did not, however, encourage her toward a dance career. During her childhood and teenage years in Washington, D.C., Glenna studied different types of dance such as folk, ballroom, modern, and jazz but never settled on one style. Talking about this period of her life, she said:

I could accomplish movements and do them fairly well but then I would find myself bored by this teacher and bored by the process, and then I would sort of berate myself. "Oh well, you can't even stick with one style. You have to do this and you have to do that. You're all over the place. What is that?" I still do that to some extent. (G.I.2)

With this broad dance experience, she went to the University of Wisconsin, Madison where she received in 1971 a bachelor's degree in history with a minor in dance. Dance was at that time, said Glenna, undergoing a profound revision because of the social unrest in the country. She recalled this period with sadness:

The choreographers often were treating the dancers like fashion models where posing and artificial shapes dominated. It was really awful. I think they were suffering too for lack of enlightenment. They struggled with their vision. It is like the worst nightmare for someone which is supposed to be doing this art form and be stuck with little inspiration. You're having to churn out something. You're bored and dissatisfied. (G.I.2)

After completing her bachelor's degree, she moved to California for a short time where she became interested in classical Indonesian and Indian dance, so much so that she went to study dance in India. When asked about her interest in Oriental dance, she explained:
There wasn't a split between mind and body in oriental dance. It was much more an integrated concept. It was something that you cultivated versus a philosophy of the body, through little rituals that you did every time you prepared a dance. (G.I.1)

After almost one year, she left India because she received a State Department graduate fellowship to do an master's degree in dance ethnology at the East-West Center, University of Hawaii. As part of her program she returned to India to study Indian dance and Sanskrit. Her degree completed, Glenna went back to Washington and spent some time performing with a local modern dance group before moving to New York with the intent to focus more intently on a dance career.

Unfortunately, within the first year of her attempt to dance as a professional dancer, she was plagued by an old injury and poor alignment problems. At this time, she felt completely hopeless:

I went to this chiropractor, this osteopath, this orthopedist, and no one had an answer. I was basically put out of commission. I basically had no career, nowhere to go. Somebody happened incidentally to mention Irene Dowd. "She's not a doctor but she does this form of visualization. You should at least consult with her and see what the problem is." So I went to Irene totally unsuspecting anything of my body alignment could possibly be wrong or that there could possibly be a solution that I personally could create. It was through her guidance that I not only got better physically but found the locus of my career paths. Irene said, "You have a real facility for this work. You should study with me. You should be my apprentice." (G.I.1)

Glenna became the first person trained by Irene Dowd in Ideokinesis, the specialized use of visualization for neuromuscular reeducation. She apprenticed for two years. To deepen her work with Irene, and because at that time she was starting to have more and more teaching responsibility, Glenna decided to enroll in the master's program in dance education at Columbia University Teachers College in New York where Irene was teaching. After her graduation in 1978, Glenna taught in various academic and private settings.
She also developed an enriching professional relationship with Dr. Richard Bachrach, an osteopath:

He allowed me to work with his patients using visualization and movement. It was pioneering in those days. In the three years that I worked with him, we ran a dancers' lab. We would have their X-rays and would coach injured dancers on the spot in front of a group. It was a wonderful experience to have the medical with the body therapy coming together in this particular context. Dance medicine was evolving as a recognized science and the seminars were being held. I presented with Dr. Bachrach at the Sheraton in New York in 1978 the first seminar ever held in the United States. (G.1.1)

After three years of working with Dr. Bachrach, she felt that it was time for her to leave the medical milieu and to indulge in her interest in this work in a dance teaching environment. She decided to take a position as Assistant Professor at the University of Maryland, College Park to teach modern dance for nonmajors, dance science, and dance ethnology. It was at this time that she had realized her specialized role in the dance community:

I realized I had this facility for analyzing movement. I could sense movement in my body and I could read it in someone else’s body. I could know the initiation, direction, and pathway it was taking. I could begin to see “Well, no wonder they got that injury.” I was beginning to define my life’s role in the dance world. It was very clear. I think all the movement that I had as a child, all those different trainings, each was feeding this new rich career. Understanding the way people use their muscles differently in different styles. (G.1.1)

In addition to teaching at the University of Maryland, she began a private practice treating people with visualization, massage, and movement. Once again, that reintroduced the reality of medicine into her kinesthetic treatment of movement and motivated her to make a drastic change in her life:

I was practicing left and right. I felt bad about this: “If I’m going to be treating people, I should really be licensed.” With Richard Bachrach, I had been doing the same but I was under his guidance. Here I was alone. At the university we were planning masters degree, emphasizing dance medicine, and I was planning a big dance medicine seminar. I realized I needed more medical training to justify my work.
I decided to go to physical therapy school. While I mourned that this
would take me out of the realm of teaching, I felt I needed the impetus to
grow in my work. I think we all go through this as teachers; you get to
a point where you feel, "I have nothing to teach." I felt the students
have surpassed me. I needed to just pull back and just give myself over
to something else in order to provide them with a broader deeper
learning experience. (G.1.1)

Thus, in 1981, one more time, she packed her bags to move to
Philadelphia to pursue a certificate in physical therapy at Hahnemann
Medical University. Glenna described her two years of studying there as "the
black hole of my life":

Physical therapy is probably one of the hardest trainings anyone will
ever undergo under any circumstances, especially if you happen to be a
kinesthetic person because the training is not kinesthetic. It's very left
brain. You just learn, memorize, learn, memorize. There is never a
sense of organizing yourself through the senses which is of course
what the body therapies and dance are all about. So here I was in this
school, first of all much older than most of the other kids and the only
kinesthetic person around. . . . It was a sheer torture. Nobody had heard
of body therapies at that time. They were just beginning to come into
the picture. Now the trend is for physical therapists to study body
therapy. At that time, I felt pretty much out in left field, but I finished.
I had two things to support me then: the Alexander school, which
opened that year, and the Pennsylvania ballet, where I taught
functional anatomy for dance. (G.1.1)

After completing her study, Glenna went back to Washington to work as
a physical therapist. Interestingly, she never got the chance to really
practice basic skills in physical therapy in the number of clinics she worked
in because her knowledge in body therapies and dance was quickly sought out.
She ended up developing and implementing numerous reeducation programs
such as posture class and back school. Parallel to this work, she resumed
teaching dance, beginning to combine what she knew of dance, physical
therapy, and all the body therapies she had studied. Indeed, since her work
with Dowd, Glenna continued her studies in different body therapies.
Gradually, Glenna became well known as an innovative dance teacher to the point that in 1987 the American Dance Festival (ADF) invited her to join the faculty, an invitation that has been renewed every year since. In 1988, she moved to North Carolina, site of the American Dance Festival. Upon her arrival in North Carolina, she quickly started working as coordinator of the physical therapy department at Dorothea Dix Hospital in Raleigh, which is a psychiatric clinic. She also became an assistant clinical professor of physical therapy at the University of North Carolina, Chapel Hill. In addition, she established herself in the dance community. Remembering her arrival in North Carolina, Glenna said: "I basically taught anywhere I could give a workshop and put my name out in this area of dance science" (G.I.1). Locally, she taught dance classes emphasizing functional anatomy in various professional and recreational dance teaching settings. She joined many dance organizations. She is still on the board of the North Carolina Dance Alliance where she has the function of state coordinator. She gave lectures at regional and national dance conferences. She also published in dance journals and in physical therapy magazines.

During the time of the data collection for this research, beside her work at the Festival and at the hospital, Glenna taught a week-end workshop for dancers and physical therapists. The workshop was taught jointly with a biomechanics instructor on the faculty at the University of North Carolina, Chapel Hill, and combined experience in the cadaver laboratory, Ideokinesis, and movement sessions. During the six weeks of the Festival, Glenna also left for a weekend to give a lecture at the first conference of the International Association for Dance Medicine and Science held in Baltimore. A typical day in
Glenna's life during the Festival was to rise at six in the morning, stopping at a health club to swim and exercise before going to the hospital. At four o'clock, she drove to ADF to teach the dance class. In the evening, she went to a dance concert or prepared for either the dance classes, the movement therapy workshop, or dance science conference.

Glenna had many short-term projects after the Festival. In addition to her job at the hospital, her teaching physical therapy at the University of North Carolina, and her involvement in the dance community, she planned to write a book on Ideokinesis, to write a script for a video on stretching, and to sponsor a dance medicine seminar. A teaching trip to Venezuela was also planned just after ADF. As she said, "I have to really figure out how it's all going to work together. There are only 24 hours in a day unfortunately" (G.I.1). At the time of the interviews, Glenna's long-term goal was to do a doctorate. One major dilemma in Glenna's choice of a doctoral topic was to reconcile her two interests: medicine and art. Glenna always felt a struggle between the two but nevertheless always kept a positive attitude: "I feel that my life's work is continuing to evolve in such a way that the two [art and science] will hopefully continue. I don't know in what fashion that's going to take place exactly" (G.I.1). Planning a Ph.D., will once more involve major changes in her life, but as she said, this is what growth is all about:

I can stay just where I am and be fine but I'm one of these people that processes all the time. I feel that especially being the kind of movement-oriented person that I am, that as long as I can see myself continuing to move, that is that process by which I live and it often expands into whole other dimensions and directions. If my work life constrains me I have to somehow make some changes. (G.I.1)
Glenna seemed to have to run all over the world to find her path. As she explained, this is the way it is when the pathway is not already carved out. "There was no such thing as what I do now back when I started out. Not even remotely" (G. I 2), she stated. Glenna is very persevering, and so are the people who influenced her:

The people who really influenced me were people who followed their desire in spite of all odds. That's the model that just keeps coming back. It was the resistance of the experience, not only within themselves but culturally that created energy to go on. And I often do feel that about myself. (G.I.2)

Teaching Environment

Glenna taught a class titled Technique Lab/Performance Improvement, within the Six-Week Professional Program of the American Dance Festival, site of this case study. Therefore the information related to Glenna's teaching environment has been organized in the following manner: The American Dance Festival, the Six-Week Professional Program, Technique Lab/Performance Improvement, and the description of the room in which the class was taught.

The American Dance Festival

Summer dance festivals have existed in the United States for over 50 years. They consist of dance classes and dance concerts offered during a short intensive time period. Now numerous all around the country, the different festivals are distinguished by the number of students enrolled, the size of the faculty, the state, national, or international population from which the
students come, the length of the festival, and the level of the dance classes offered.

The American Dance Festival began in 1934 and is considered one of the most outstanding of the summer dance festivals (Anderson, 1987). It takes place at Duke University in Durham, North Carolina, for six weeks in June and July. In the summer of 1991 American Dance Festival attracted 400 students from all around the world, 42 dance teachers and musicians, and the same number of administrative staff. The teaching programs consisted of a six-week professional training program, a four-week young dancers' school, a one-week dance update workshop, and a week-end dance therapy workshop. The concert program encompassed 37 performances presented by 18 dance companies. Since Glenna's involvement was limited to the Six-Week Professional Program, only this program will be described.

The Six-Week Professional Program

The minimum age to apply to the Six-Week Professional Program was 16. Though it was advertised as a professional training program through Duke University, each student could apply for university credits. Classes met daily for one-and-a-half hours. The first class started at eight o'clock in the morning, and the last class was at four o'clock. Students were allowed to take a maximum of four courses: two technique classes and two nontechnical classes. The technique classes encompassed modern, jazz, and ballet techniques at an elementary, intermediate or advanced level. The nontechnique classes were divided into three clusters: the improvisation and movement discovery courses, the video and stagecraft courses, and the body therapies courses.
Gleana's class, titled *Technique Lab/Performance Improvement*, belonged to the last group. Body therapies classes have been part of the American Dance Festival for 22 years. Though the body therapies were introduced early within the American Dance Festival, they appealed to a precious few. For most of the students, the repertory classes were the most popular followed by the technical classes. The body therapy classes, which did not require an audition, were less popular in terms of enrollment. Gleanna, who described herself as "peripheral" compared to the teachers of technique, nonetheless viewed this with a sense of humor:

The students get all hyped up about the repertory classes and of course not everybody makes it, so those poor souls who don't make it end up in the body therapy class. They didn't realize how lucky they were. (G.I.2)

The *Technique Lab/Performance Improvement* Class

The average daily number of students in Gleanna's class was 12, attendance varying from five to 17. Throughout the Festival, there was a nucleus of eight regular students. Some students took only the first three weeks of the Festival, and quit due to injuries or performing schedules. They were replaced by other students. Often, there also were visitors who came for a few days, so the group varied throughout the Festival and was heterogeneous in terms of physical dance skills, age, cultural background, and interest in dance.

Among the regular students, three subgroups could be distinguished: (a) the young students majoring in dance, (b) the international choreographers, and (c) a professional individual, Lee. The young students majoring in dance were the least physically skilled of the group. That
characteristic, however, did not bother Glenna as much as their attitudes about
the class, which Glenna attributed to their age. At 20 years old, their attitude
for the most part was "to be fixed" in Glenna's term. They believed that a
teacher could immediately remedy their personal alignment problems, rather
than engaging themselves in a process of self-discovery about their body and
movement organization. The international choreographers, most of them in
their early thirties, had a different attitude that Glenna appreciated:

They use the body therapy as an inspiration to extend their own
movement possibilities. I'm happy to get more internationals in my
class because their dance training is usually more rigid and dictatorial.
At first, they don't have a clue as how to bring in softness in body or
real sense of kinesthetic liveliness, but they are enthusiastic about the
work. (G.I.2)

Finally, Lee was different from the other students in that she was not fully
registered for the Festival. Lee came to the class after work and had a
receptivity to the material different from the other students who had danced
all day long. Lee, in her mid-forties, was an art administrator, professional
modern dancer, and dance teacher. Her motivation to take the class was to
move in a safe environment in order to complete the healing of a severe
injury.

Description of the Room

Glenna's class took place in a small two floor building on a university
campus in a small room of approximately 25 x 30 feet. During the year the
room was used as an experimental theater. The wood floor, the walls, and the
ceiling painted in black, combined with lecko lighting fixtures located in the
ceiling, created an intimate ambience. Two sides of the room contained a
number of windows, which also allowed natural light to enter the room. Three rows of chairs, elevated on a platform running the length of the room, were placed parallel to the walls. One wall had a black curtain to hide a storage space and bathroom doors. A piano was also located close to the curtains but was not used for the dance class. Glenna brought a tape machine that she placed close to the entrance of the room. Unlike the other rooms in which the students had their dance class, the experimental theater had air conditioning, which was appreciated since the temperature was around 90 degrees with high humidity for the six weeks of the Festival. Glenna's class, the last of the day, became a welcome place to rest and recuperate after six hours of intensive physical activity.

At the beginning of the Festival, Glenna was very pleased with the intimate character of the room, though she had to make some spatial adjustments for the last part of the class that consisted of locomotor steps. However, as the Festival progressed, the characteristics of the room combined with the time of the day the class was scheduled became a concern for Glenna. On that matter, she said, "It's difficult to bring in liveliness to that room rather than to let people go to sleep because it is like a womb, black, and enclosed. It's late. The students are tired and everything is cool and quiet in there" (G.I.2).

**Synthesis**

The above section on Glenna's biography and teaching environment provides a context in which to place her knowledge, beliefs, and teaching
practice of modern dance, which will be presented in the two following sections.

Glenna spent all her life in a dance environment. Her family provided her with an early exposure to dance that she continued to broaden and deepen in multiple unusual ways. Her eclectic training encompasses not only a number of Western but also Eastern dance forms. Her interest in dance bleeds both the practical and the theoretical. Taking dance classes, teaching dance classes, attending conferences, and publishing all reflect and contribute to Glenna's passion for dancing. Another outstanding feature of Glenna is her synthesis of the arts and the sciences.

Through the six weeks spent with Glenna, I discovered an outgoing woman, strongly dedicated to her multifaceted career. At the time of the study, Glenna was not only involved in the Festival and in many other dance projects, but also was working full time as a physical therapist teacher and administrator. When bringing to mind her professional journey and reflecting on her current professional practice as a dance teacher, Glenna mentioned the atypical character of her path and the pioneer aspect of her practice.

From this section, it emerges that Glenna is not a typical dance teacher. First, she completed an academic dance education program. One does not need statistics to conclude that most dance teachers in America did not receive formal training in dance education. Second and most important, she did not pursue a specific style of movement or perform in a professional dance company. Historically, indeed, the best dancers in the community have been assigned the role of teaching dance (Gray, 1989). Today, the
assumption that effective teaching is linked to professional dancing still prevails (Skrinar and Moses, 1988). Dance schools still hire teachers with the assumption that effective teaching is linked to professional dancing. Performing with a well-known company is considered the best credential for teaching dance. The assumption is that strong content knowledge, e.g., experience at a high level in the practice of the discipline, in addition to a smattering of teaching strategies acquired through experience, is sufficient preparation for teaching. The traditional view that the dance teacher's performance skill is equated to the dancer's content knowledge, however, begins to be challenged by the emerging literature on dance knowledge base (Gray, 1990; Hanstein, 1990; LaPointe-Crump, 1990). These authors agree on the need to engage in the difficult identification of the knowledge base required for competent teaching, but unfortunately their discourse remains at a strict theoretical level, and does not present any argument regarding the nature, character, or source of such a knowledge base for dance teaching. From Glenna's background, an argument may be made about the need to expand the kind of ties dance teachers establish with professional practice. That would be in line with the result of research on pedagogical content knowledge in academic disciplines that shows that content knowledge outside a teacher's specific field impacts teaching in a variety of ways (Hashew, 1987).
Part 2—What Does Glenna Know and Believe about the Teaching of Modern Dance?

How teachers conduct instruction is partly related to their knowledge and belief about their subject matter and teaching (Gudmundstoettir, 1987, 1990; Nespor, 1987). In this section, I first try to capture the source of Glenna's knowledge and beliefs about the teaching of modern dance. Then I will address the central organizing principles of Glenna's content knowledge for dance teaching. Finally, I will examine the bases on which she selects content for her teaching.

What Is the Source of Glenna's Knowledge and Beliefs?

Glenna's knowledge and beliefs about modern dance teaching come from her diversified background in dance, her experience with body therapy practices, and her specialized training in physical therapy. Glenna's teaching seems to be a blending of these three major sources of influence, though this blending did not happen without a considerable amount of personal work. Glenna's autodidactic personality is a major factor in the emergence of a unique approach to teaching dance. For that reason, Glenna's sources of knowledge and beliefs are presented below under the headings continuing education, dance background, body therapy practices, and physical therapy studies.
Dance Background

Practical dance classes are usually classified as technique, composition, or improvisation. In this section, I will first focus on Glenna's conception of technical dance classes only. Then I will address how Glenna's dance background influenced the class Technique Lab/Improvement of Performance.

Conception of technical dance class. Within the American Dance Festival, Glenna's class was not categorized as a technical modern dance class, but rather as a body therapy class. Despite this labeling, Glenna believed that her class was a technique class:

My class is never called technique, and I don't know why because to me it's a technique in that it is here that dancers learn the basic skills of organizing themselves neurologically to move efficiently and effectively. (G.I.4)

Later, Glenna explained that she was still struggling with some issues as she forged this concept of technique. For example, she observed that she did not include repetition of movements, which is a characteristic of dance technique class as it is now commonly taught:

For the students, repetition of specific stylistic patterns of movement makes it a technique, and I don't think I've consolidated that yet. I'm still at the point where I want the movement to be primarily a body exploration and that through this process they begin to illuminate for themselves how they need to approach other technique classes. (G.I.3)

Another difference between Glenna's class and a typical technical dance class was her emphasis on the sensory component:

In fact it astounds me how many teachers teach dance without any reference to any sensory awareness. They simply teach dance from point of view of the limb moving through space. You have this kind of timing, phrasing, and dynamics in the movement. You have this kind of step pattern. That's all good but if you take that same framework and
add the sensory component, it becomes much richer, much more easy to
learn and perform. (G.1.4)

Glenna's class differed from a traditional dance class not only in her emphasis
on kinesthetic sense and absence of repetition, but also because she did not
contextualize her class in any particular dance style. She advocated for a
styleless dance technique:

In dance this is what we do. We manipulate our body to conform to
whatever it is the choreographer or teacher wants. We should learn to
find a neutral alignment for ourselves, and come out of that neutral
alignment to do other things. (G.0.1.2.9)

Glenna did not adopt the dominant view of technique as a means to serve a
particular dance style. Let me deviate a moment to discuss a contemporary
issue involving technique.

In casual usage, technique has come to refer to a dance idiom.
The names associated with techniques are often those of a
particular choreographer such as Graham, Limón, or
Cunningham. In order to express their concerns, these
choreographers designed dance and developed technique that
reflects the aesthetic goals of their artistic project. Discussion
of their techniques is beyond the scope of this paper. For visual
documentation of their technical classes refer to Caplan (1985)
and Lewis (1986). The point to make here is that Glenna's class
attempted a styleless technique that was deeply grounded in
functional anatomy principles, and in which priority was given
to sensing the body in contrast to focusing on the aesthetic
model of an idiom. The question of a styleless technique is not a
new issue (Bird, Jarrell, Mackenzie & Steedman, 1979). In my
view, it is, however, becoming a highly discussed topic for two reasons:

First, there are the cutting-edge international choreographers such as Larieux in France, Perreault in Canada, or Bill T. Jones in the United States who are looking for dancers without the typical idiosyncratic manner acquired through a long training in one style or another. The actual tendency of these choreographers is to represent the body performing a range of movements from the pedestrian and natural to the highly athletic/gymnastic. Although these choreographers ask for natural and athletic performers, they do not have schools that teach their requirements, as did modern dance choreographers of earlier generations. The structure of training is not the same as the one prevailing a few decades ago. Indeed, the typical portrait was that the choreographers had their companies and an affiliated school responsible for providing the next generation of dancers they needed. Today, choreographers work in a more individualistic way, what Bentivoglio (1987) refers as "danse d'auteur." Teachers also tend to function in a more individualistic way. Their teaching no longer embodies a single dance style. They adjust to the demand of the contemporary choreographers who require highly skilled dancers but without any rigid style imprint in their body.

In my view, the second reason that a styleless dance training is becoming a more popular topic is related to the
recent development of Dance Science and Medicine, to which Glenna belongs. The practitioners and researchers in this rapidly expanding area view technique as "the ability to use basic physical movements effectively" (Berardi, 1991). They argue that technique is of primary importance in keeping the dancers injury free and maximizing career longevity (Dunn, 1990). Technique is not subordinated to a particular style but rather should enhance skills in such a way that optimal execution of any dance style is achieved. Dance Science and Medicine advocates work in a direction likely to answer the choreographers' demand for highly skilled but not stylized dancers. In short, the contemporary dance market requires specific new demands and Glenna's background provided her with the knowledge to potentially answer the new requirements of dance performance.

**Influence of dance background.** Glenna had been exposed from an early age to a wide range of technical dance classes. In her teaching, however, specific dance vocabulary was only one influence among others. In the beginning of the class, typical dance movements such as tendu or plié were almost completely absent. The movements mostly came from her background in the body therapies and physical therapy. Typical dance movement such as battement, piqué, etc., were included towards the end of the class.

Glenna's eclectic dance background, which encompasses both western and eastern forms of dance, and practical and theoretical studies, allowed her to make frequent references to various aspects of the dance milieu. While
teaching she made numerous references to the modern dance techniques of Limón, Cunningham, Graham, or Hawkins. For example, this is how she related her continuous reminding to reduce muscular effort to Graham technique:

It depends on what school of thought you are coming from. In Graham technique, they want that effort to be there. It is part of the style. There is nothing wrong with muscular effort but when you don't have to use it, you should be able to let go of it. (G.O.1.3.11)

Body Therapies

Body therapy is an umbrella term referring to many practices. At best, the "subject matter" of body therapy may be characterized by zesty disarray, both in terms of labels and the specific practices to which those labels refer. Myers (1980), Myers and Horosko (1989), and Steinman (1986), to name just a few, use the label body therapy to encompass practices such as Alexander, Feldenkrais, Ideokinesis, Bartenieff Fundamentals, and Body-Mind Centering. Hanna (1983, 1986) and Mangione (1989) use the term somatics to refer to the same practices. Elton (1989) uses the term body work techniques. Powell (1985) uses the term body awareness and Wilson (1990) uses mind-body practices. In this study, the terms body therapy and somatics are used interchangeably since they are the most popular.

Conception of the body therapies. For Glenna, the focus in body therapies is sensing whereas dance focuses on moving. In the article, "Dancing Fully, Safely, and Expressively - The Role of the Body Therapies in Dance Training", she compared body therapies and dance training by listing five contrasting elements. She began her argument as follows:
The first difference between dance and body therapy training lies in their respective processes of achieving efficient movement organization. In dance, we focus primarily on movement. The answer to structural and functional problems lies in the motor end of the sensory-motor continuum. . . . In the body therapies, movement is subservient to the senses. Body therapists say that while the mind (the nervous system) organizes the body for movement, the senses organize the mind. Movement is the final outcome of multisensory processing in the central nervous system. Thus to alter movement outcome, we must alter our sensory stimulation. Intervening through the sense is the foundation of neuromuscular (movement) re-education. (G.D.P.4)

The second contrasting element in Gienna’s article pertains to alignment. "To make a permanent change in our alignment," she stated, "one needs to reprogram the central nervous system sensorially. All attempts to alter alignment by using traditional ways of working muscicularly fail" (G.D.P.4). The third element of contrast is that dance training consists of specific and stylized musculoskeletal usage of the body whereas body therapies provide "ways of working rather than being an end unto themselves" (G.D.P.4). She argued that because of their emphasis on sensing to improve movement quality, body therapies can be applied equally to dance technique and to daily activities.

Though all the body therapies share the primacy of sensing, they differ in ways that motivated Gienna to pursue the practices of Ideokinesis, Alexander technique, and Feldenkrais method\(^2\). When asked about her journey through them, she answered that she first came to Irene Dowd, teacher of Ideokinesis, to heal a sacroiliac injury. She learned from Irene Dowd to ground teaching in anatomical and physiological knowledge:

I began to see some of the power of visualization when applied very specifically for neuromuscular reeducation. The thing that Irene gave me probably more than any other body teacher was a real grounding in anatomy and physiology. The lack of this in other body therapies, I think, has been a negative aspect as they have evolved. Irene never, ever let just a feeling stand alone. It was like always a feeling had some reality to it that could be traced to something anatomical and neurological. As best as she was able to put the two together she would put them together and that was a real gift. (G.I.1)

After years of Ideokinesis work with Irene Dowd, Gienna went to study Alexander technique. Gienna, who described herself as a very kinesthetic person, needed to sense and move without concrete directional intent expressed through image as it is found in Ideokinesis:

Irene’s way of teaching imagery and her visualizations are more "visual" than "kinesthetic." I needed to do more about just sensing, pure sensing without an image appearing. (G.I.5)

While emphasizing kinesthetic sensations, Alexander work presents an important cognitive component. In the Alexander work, students are asked to mentally repeat the "directive orders": "let the neck be free . . . the head go forward and up . . . the torso lengthen and widen out" (Alexander, 1974, p. xxiv). The kinesthetic aspect, the teacher providing tactile information to the head and the neck of the student, goes with mental involvement of the student. Gienna explained that the emphasis on directing oneself spatially, either kinesthetically or visually, propelled her to pursue the Feldenkrais method.

In Feldenkrais, she experimented with not directing herself mentally:

The thing about Feldenkrais work which I think is so important for me is that I stopped directing myself. I can just give myself over to moving with awareness only of the movement itself. It can take over and I can let it do the work. Then I can just relax and not be afraid of what comes up. That's not easy for me. I'm a person who likes a lot of control. (G.I.5)

Though Gienna wrote on her brochure that her teaching drew from the specific body therapies of Alexander, Feldenkrais, and Ideokinesis, she said
that she has an eclectic stance towards the body therapies, which are to her instrumental:

I don't see myself ever becoming a Feldenkrais practitioner, an Alexander practitioner, an Ideokinesis practitioner. I see these body therapies as feeding who I am, what I need and therefore what eventual work I will do as a teacher, but it will be a combination of those things that is integrated into what I do. Maybe one sees that as standing aloof but I need to see myself as an individual at once being able to partake of that and then being aloof from that. (G.I.5)

Influence of the body therapies. The influence of these three body therapies was visible in the class Glenna taught at the American Dance Festival, in the instructional tasks she presented and the instructional strategies she adopted. Examples of tasks directly drawn from the body therapies of Feldenkrais, Alexander and Ideokinesis include the pelvic rock through the feet (G.O.1.3.2), the lengthening of the sternocleidomastoid muscle (G.O3.3.2), and the visualization of dropping the femur in the hip socket (G.O.1.2.2). In terms of instructional strategies, throughout the class Glenna reminded the students to move gently with a constant emphasis on self-observation, discrimination of sensorial information, and frequent pauses. Those are without doubt the direct influence of body therapies:

The body therapies place an enormous emphasis on attending to the body—quietly, slowly, gently and easily. Attending one's sensing self requires giving oneself over to a receptive mode, not a doing, moving one. That moment of stillness, that pause for observation alone, is where re-education of the nervous system begins. Quiet observation helps organize the nervous system in several important ways. It prepares the nervous system for movement by focusing, distilling and refining neural stimuli, and it gives the nervous system recuperative time to release effort, learn and integrate new patterns. (G.D.P.4)

Though Glenna valued body therapies and integrated aspects of them in her teaching, she did not consider her teaching within the American Dance Festival to follow a typical body therapy class format:
I don't want to make it just a body therapy class. So many body therapists come back to a sort of cellular awareness of movement and how we don't have to move. Why move in visible movement because there is so much motion inside? That's not for dancers. They must move. It is part of their trade. So I can't just give a class that's all on the floor. (G.I.4)

Her reluctance to adopt a strict body therapy approach was also related to the therapeutic component of body therapy. On that matter, she preferred the term body education:

I don't want to see myself as a therapist or as fixing people, or them expecting that or demanding that of me. No. Purely this is something that they are doing for themselves and it's an education. I'm just facilitating their education. (G.I.5)

Moreover, Glenna did not like the intimacy that goes with the body therapists' work.

The body work sets up a sense of intimacy and while that's not bad, it's just not what I want. People can't live on that level all the time. . . . I'm not comfortable with that kind of intimacy with people all the time. I've been in situations where other parts of my life were so devoid of intimacy that I made my clients' life fill all that space but I realized pretty quickly that that was what was happening. I no longer want to do that. (G.I.6)

Physical Therapy

As with dance and body therapy, physical therapy is a source of knowledge of Glenna's content knowledge. Glenna's conception of physical therapy and how that influences her teaching is briefly addressed in the following paragraphs.

Conception of physical therapy. Glenna admitted in an interview that she has always been atypical among physical therapists. Being trained in a variety of body therapies before attending the physical therapy school influenced her practice as a physical therapist. She carried her belief in the
essential contribution of sensing from her body therapy experience to the study of physical therapy. She wrote: "Intuiting, sensing and feeling are essential in both assessment and treatment" (G.D.P.4). To her, everything that is "physiological, anatomical, engineering, biomechanical is sort of physical therapy concept" compared to "sensing which is more a body therapy concept" (G.I.5). She said that she always practiced physical therapy "with the intent of movement being the sole focus. The way that we sense movement and organize movement is the way we rehabilitate" (G.I.1).

Influence of physical therapy. Glenna's knowledge of physical therapy is visible in her teaching in a multitude of ways. For example, she used specific physical therapy techniques to show the students how to test the degree of flexibility of the ilioflexus muscle (G.O.1.4.1), or how to test the degree of turn out of a dancer (G.O.5.1.2). In other words, she analyzed structure and function of the body in specific dance context. Another contribution of her physical therapy background is her ability to address misconceptions on the basis of factual knowledge. For example, during a class on the rib cage, a student told Glenna that another teacher was asking her to release the fifth thoracic vertebra. Glenna asked if she knew where the fifth thoracic vertebra was. While showing, both on the skeleton and on the student's body, the location of the fifth vertebra, she explained:

I am not sure I know what he is [the teacher] talking about either. Let me just tell you what I think that is. The thoracic spine has 12 vertebrae and between fifth and sixth, that is the apex of the curve [showing on the skeleton]. The apex means that it is most exaggerated part of the convexity. It happens to be the area of the spine in which there is the least mobility in any direction physiologically. I am imagining that what he is looking for is how to find as much mobility as you can in that segment, which would automatically create more movement in the rest of the segments. How does he describe it?
student answered that the teacher was talking about creating an arch from there. Glenna laughed and answered]. Well that is very hard to do because you are calling on the spine which is at its apex on convex to the front to now go convex to the rear; to do the exact opposite of what it is structurally designed to do. (G. 0.3.2.4)

Another skill in Glenna's teaching that can be associated with her study of physical therapy is her ability to be extremely detailed in her explanation of the exercises and to relate them to dance injuries. She provided anatomical details to explain differentiated movement and the bearing this has on function:

You can make this movement by tying your stomach muscles and squeezing your buttocks in a somewhat undifferentiated way. But what I would like is your buttocks to relax and really work those lower fibers of the abdominals. . . . We worked with that image of the pubic bone coming to the twelfth thoracic, you are really activating these lower fibers of the rectus and being able to release the gluteus at the same time. You have to get this differentiation in order to find length through your spine. It's a wonderful exercise to recuperate or for back pain. While in ballet you see more injuries occurring in the ankle and the foot, in modern dance the major injuries occur around the hip joint and lower back. (G.O.4.1.3)

Throughout the interview data, there was much evidence to support the claim that Glenna possessed broad and deep knowledge of the subject matter of dance, body therapy, and physical therapy. Her eclectic background provided her not only with the capacity to transmit thorough information but also the capacity to determine what claim had greater warrant when the students asked about competing claims. To the layperson, teachers only need to know the curricular knowledge, the "stuff" that is to be learned by the students. But in the notion of pedagogical content knowledge, teachers need content knowledge that goes beyond the strict facts and skills of
a given discipline. In the framework of pedagogical content knowledge, content knowledge is made manifest not just in what the teachers teach but in the personal internalized understanding they have of why they teach what they teach.

Teachers must not only be capable of defining for students the accepted truth in a domain, they must also be able to explain why a particular proposition is deemed warranted, why it is worth knowing and how it relates to other propositions, both within the discipline and without, both in theory and in practice. . . . Moreover, we expect the teacher to understand why a given topic is particularly central to a discipline whereas another may be peripheral. (Shulman, 1986b, p. 9)

Continuing Education

In the previous sections, Glenn's knowledge and beliefs have been related to her formal study of dance, body therapy, and physical therapy. The integration of these sources of knowledge, however, has relied greatly on Glenn's autodidactic personality. For Glenn, knowledge is constantly in a state of evolution. She is constantly in search of elements that could contribute to her physical, intellectual, emotional, and spiritual development. She is engaged in continuing her education by learning from others, as well as learning through self-education.

A search from the outside. Glenn could be described as a workshop addict. She has taken many workshops not only in the areas of dance, body therapies and physical therapy, but also in areas such as nutrition, vision, etc. Recently, she decided to reduce the number of workshops she attended and to select only the physical therapy workshops that would give her "pure clinical skills." She mentioned, for example, the workshop she took in Proprioceptive
Neuromuscular Facilitation and explained that "you can't just intuit it. You must practice specific moves" (G.I.5). In regard to body therapies workshops, she explained that teaching sets the occasion to both integrate and develop her knowledge:

With pure body therapy what I realized I needed to do was to actually teach, and I'm very much at that stage now. I must get out and teach, teach, teach, do, do, do and not take so many workshops. I was getting to the point where I was just absorbing but not really integrating and putting it out again which is what I felt my class was like this summer. I won't take any body therapy workshops for a while unless they're of a very high technical level. (G.I.5)

Glenna said she spent more money on her education workshops and books than anything else. Besides attending workshops, Glenna fed herself by reading philosophical books, medical reports, and dance literature. Her reading directly influenced her teaching. As an example, she asked the students to begin the locomotor steps with the left foot. That is very unusual in dance classes, the common practice being to start combinations with the right foot. When asked by a student why she did this, she answered that a recent study revealed some advantages of doing so and went on to describe the results of the study. Glenna always keeps abreast of current developments and assimilates what can serve her goals. For example, during a class on the abdominals, she said that some of the exercises were inspired by Jane Fonda. Glenna is a curious and dynamic person who is receptive to new information and uses it in class.

Throughout the interviews and observational data, there was evidence to support the claim that Glenna integrated her different backgrounds in dance, body therapies, and physical therapy to produce an idiosyncratic way of teaching. Glenna
certainly contradicts the concept of "apprenticeship of observation" often cited in educational practice. "Apprenticeship of observation" is a term first introduced by Lortie (1975) to explain the high degree of conformity that one can observe in all teaching practices because teachers tend to replicate what they have experienced themselves as students. In class, Glenna did not strictly replicate what she learned in her own training. Her teaching was not a collage of dance steps previously learned, or physical therapy techniques or body therapy tricks. Those specific tools were used only when needed. Glenna, thanks to her eclectic background and her capacity to seek new information, challenged conformity in teaching.

A search from the inside. Glenna had her own dance studio in her house and spent a lot of time exploring body and movement principles. She developed an original strengthening program using therapeutic rubber tubing, called "therabands". Besides illustrating to what extent Glenna engaged herself in a discovery process, the following description of an incident reveals that Glenna’s personal investigations have a strong psychological component. At the occasion of the last interview, which took place in her home, she mentioned having hurt her wrist and explained how this incident became the pretext for learning about both physical and psychological patterns. "No injury is an accident," she asserted, "I take everything to its metaphorical level immediately... My forearm is about controlling" (G.I.6). The bruise motivated her to reflect on "the acceptance of
that which cannot be controlled" (G.I.6). The bruise also became the pretext to investigate the skeletal structure of the forearm through moving and drawings. She showed me drawings consisting of detailed representations of the skeleton superimposed on colored cylindric shapes:

I drew these pictures of my vertebra, my neck and ribs and then my spine coming in, over which I drew these huge volumes and colors. This was really what I was sensing as opposed to structural detail: large voluminous skeleton filled with color. A lot of times I will start moving and then I'll draw what it is that I feel about it, so that I can see how it has opened up or how the energy is going through. A lot of times, what I'm trying to convey in the drawings or in the teaching as well, that is what you see in the outside or from the book. Then this is what you experience and this is how you can experience your body in a certain sense of three-dimensional fullness or maybe a sense of energy. (G.I.6)

Though Glenna believed that psychological and physical patterns are interwoven, she did not address it in her teaching. In class she focused only on physical, sensorial, and cognitive aspects. When asked about her motivation not to do so, she simply answered that she was not a psychologist. Another reason might also be that she does not like the primacy of emotional and psychological intimacy in class as mentioned earlier. Throughout her diary, which she voluntarily offered to me, there was evidence to support the claim that her teaching might be described as the extension of her lived experiences, except that she did not address directly psychological and emotional aspects in teaching situations. Her diary contained annotations about her dreams, her relationship with her husband, her work at the hospital, and her cultural shock returning from a trip to Spain, but mainly her diary is filled with numerous descriptions of her lived bodily experiences:

Already I see the signal of the old habitual me feeding back in. The left eye less clear, more weight shifting back to the right, my neck still. . . . I go out for a race walking, sensing, depth width. My body much more released, mobile, three dimensional. I don't know why but I'm much
more in touch with myself, with movement, with direction, with connectedness. I was able to keep the width even of my eyes in walking, enhancing my ability to see . . . Many dreams arising around finding my voice, unifying mind and body, speaking up and out for who, what I am. Transform the mundane into empowerment, release my neck patterns. Let my heart find my head through the channel of my neck. See how compassion, patience, love can open up and support my neck and head, to move on spiritually. (G.D.D)

Glenna's diary includes evidence of her belief that body awareness is at the starting point of a long chain of growth at all levels. Her daily life provided her the occasion to enhance her body awareness which she eventually brought to class in instructional tasks. This process of self-education was often accompanied by doubt and faith:

I want to come from an authentic place. To overcome my fears of presenting material to my students, to overcome my fear to be alone. . . . I must do my own work with faith . . . In Baltimore, First International Association Dance Medicine and Science Seminar, I got a lot of good feedback. Felt like I had established myself in this animated place. W on my honor. Realized the sophisticated level of good use which I've attained. I came to the realization that this summer is about exposure, about becoming public, moving into public eye, bringing my thoughts, voice, way of working into the public eye, confidently. (G.D.D)

As a freelance dance teacher, Glenna did not have people around to develop collegiality. Educational research shows that teachers often suffer from isolation (Maeroff, 1988). They seldom have time to compare teaching ideas and thus seek validation of their work. Glenna, because of the pioneering character of her work, and because she was not involved full time in any institution, felt isolated and sought validation of her work.
Summary

Glenna has integrated a wide range of experiences into a unique approach to teaching. Her dance background gave her a broad repertoire of dance movements clearly revealed by the locomotor steps that were presented in the last part of the class and by many references to various elements of the dance milieu. Her body therapy background was seen in many instructional tasks mainly at the beginning of the class, and in many pedagogical strategies. Her theoretical knowledge of anatomy and biomechanics served to address students' misconceptions and provide information on dance injuries. From an eclectic background in dance, body therapy, and physical therapy, Glenna created an individual synthesis, always searching for new ideas and information. In addition to her personal pursuit of movement efficiency, Glenna kept up to date with knowledge in the fields of dance, body therapy, and physical therapy by attending workshops, readings, conferences, etc. According to Newsome (1990), such continuing education is related to a new vision of teacher accountability:

An alternative to teacher accountability is that of teachers' professional responsibilities. Teachers are responsible for mastery of the subject matter they teach. They are responsible for keeping up to date in their teaching fields. It is their responsibility to be aware of the standards for practice in their fields and to practice according to those standards. (p. 78)

That leads me to address the subject matter Glenna teaches. Her different experiences gave rise to an idiosyncratic teaching that she herself struggled to classify accurately. In what ways was her class a body therapy class as advertised at the Festival? In what ways was her class a modern
technique dance class as commonly defined (Lockart & Pease, 1982; Sherbon, 1990). Gienna's search to clarify the nature of her practice partially determined her positive attitude towards this case study as encapsulated in the following statement: "For years I never knew what it was that I did. I still don't know exactly what it is that I do, and so for someone to question me is very different and difficult. It is easier to show them" (G.I.6). Gienna's questions about the nature of her practice, the definition of her subject matter, is central to this research.

Implicit in the concept of pedagogical content knowledge is the notion of transformation of the subject matter in representational forms suitable to teaching situations. What exactly was the subject matter Gienna transforms from? Gienna expressed building from the content knowledge of dance, body therapy, and physical therapy. I will come back to this central question as I progress through the data. While recognizing that some elements of a typical modern dance class such as specific work on rhythm and space were not developed as commonly recommended in the literature on modern dance technique (Lockart & Pease, 1982; Sherbon, 1990), for the convenience of the narratives I will continue to refer to her practice as modern dance teaching.

**What Are the Central Organizing Principles of Gienna's Content Knowledge of Modern Dance Teaching?**

Gienna wrote on the brochure for her class at the American Dance Festival:
This [the dance class] is a moving class. In it dancers will heighten their sensory awareness of their own movement organization, identifying those tensions that interfere with the potential for organizing efficiency and aesthetic movement. The movements [of the class] reflect a basic modern dance vocabulary, but are performed easily and simply so that you can attend to sensing the essentials of a movement impulse - its initiation, sequence, quality and connection throughout the body. Each day we will focus on a different body part, learning how it can warm-up and support the whole. (G.D.P.B.)

Examination of the observational data revealed two central organizing principles: sensing kinesthetically and whole body connectedness. In the following sections, three issues related to the central organizing principle of sensing kinesthetically will be addressed: (a) sensing and anatomical knowledge, (b) sensing and moving, and (c) sensing and repetition of movements. The central organizing principle, whole body connectedness, will also be analyzed under three related organizing principles: (a) any body part reflects the overall movement organization, (b) initiation, and (c) sequencing.

**Sensing Kinesitically**

When asked to describe her teaching, Glenna answered:

There are several ways of teaching dance. There seem to be two streams. One is to teach totally unkinesthetically. You copy me and let's do this. It's very motor oriented, and it appeals certainly to the younger dancers. They love to experience muscular effort and they only know that something is wrong when they hurt. There is little understanding that sensing movement will in and of itself organize the movement. Now quickly coming, there are other ways of organizing your movement. That's where I come in. . . . Our culture has virtually a poverty of movement. We separate mind and body. The politics and the society is such that it does not help you. It just removes you more and more from your own sensation. People are getting injured and they need to rehabilitate. They need to understand their body and they need to understand how they can prevent those injuries. So I see it as an essential part of the whole picture. (G.I.1)

In that quote, Glenna expressed that sensing as an approach to teaching movement is impeded by the social value given to sensing in general. Among
other factors that tend to make sensing activities difficult for dancers is their attitude that technical accomplishment requires mainly muscular effort:

Generally, for the young dancers, muscle is primary. If they feel themselves making an effort they think they're doing it right. I've heard Alexander people talk about it many times, especially those who are dancers. When they finally found the ability to go into movement freely, and be able to organize themselves without any effort, it took them two years to get over the guilt of not having to strain the muscles themselves. (G.I. 2)

How culture shapes attitude toward learning has been expressed in similar terms by Woodruff (1989). She wrote:

The . . . issue is that individuals hold cultural attitudes which influence the way they dance. For example, in order to be in control, one must "hold" by tensing muscles before moving, otherwise one is not "dancing". Students often believe that if the movement is not "muscled through", is not done quickly, or is lacking in repetitions, there is no training effect. Today fitness culture supports the view that the body is a machine that will only move by mechanical force. (p. 26)

Sensing and anatomical knowledge. To Glenna, it is extremely important that kinesthetic sensations be "grounded anatomically" (G.I.4). Glenna believes in the validity of the subjective sensory perceptions of the learner. However, she also recognizes some limitations of relying strictly on the mover's perception without knowledge of functional anatomy. Her view is illustrated in one particularly telling instructional task consisting in a demi-plié in turn out:

You probably all heard a lot of different phrases from teachers such as "feel the inside leg muscles" or "move the leg from underneath." There are different phrases that people use to describe the mechanics of what they feel when they are doing the turn out. The tricky thing about turn out is that there is mechanical reality, and there is what people feel. It does not mean that it is how you will get turn out. That is what's confusing. If you just try to feel the inside leg muscles, it will actually make you turn in. It is a very complex mechanism that goes on in rotation. The first thing is to find the trochanter to rotate down and
back, and the legs spiral. You release the glutes in order to allow the
tail bone to release. Each time you go to plié, you should rotate as the
first motion, not flexion. The rotation enhances the flexion. You will
feel a stretch in your inside leg muscles. Once the rotation is started, it
must continue as a big spiral. (C.O.S.2.3)

I pointed out that Glenna took a dim view of dance teachers who teach
"unkinesthetically." In the same vein, she deplored dance teachers who
emphasize the appearance of the execution of movements with little attention
to the mechanics of the body in motion:

I've been in people's classes so many times all my life and I always
wondered "Why are we doing this?" It was like it never made sense.
Some of the only teachers whose classes made sense to me, anatomically
as well as aesthetically, were Hawkins teachers. Hawkins has that kind
of anatomical understanding of what and why you're doing things.
Beyond that I can't tell you how many classes I've been in and I'm
going, "Well this is all very nice but what is it for? Am I simply going to
look like you? Is that the purpose of this? Is it so that I can be a clone
of this particular dance technique?" I've taken classes with no
explanation about why you're doing what you're doing. Now here's a
movement, let's do, now let's do, now let's do. Well what is the doing
about? Some of these things really have a reason for why they're being
given. The early modern dance pioneers definitely taught with a
reason behind their technique. (G.1.6)

The importance of having clear understanding of functional
anatomy varies greatly among dance teachers and body
therapists. Historically body therapists and dance teachers have
had an anti-science attitude stressing the intuitive. According
to Myers (1992), the body therapy community, and I would argue
the dance community too, has recently developed a better
attitude toward "hard" science. As Myers stated: "The 'soft'
nature of somatics is changing rapidly as somatic concepts and
practitioners enter the medical sciences and high-technology
resources become available to quantify elements of motion and
physical phenomena" (p. 7). Using a quote of Taylor (1988), she
quickly cautioned about the pendulum phenomena. "What is
needed is not merely the generation of more scientific facts for
their own sake, but an orienting meta-theoretical attitude that
will guide theory and research, and that will retain the person
as its focus" (p. 7).

Sensing and moving. The balance between sensing activity and moving
activity was a big concern in Glenna's teaching. The following comment
typifies her point of view:

Modern dance is primarily a motor concept. It's not a sensory concept.
It much more emphasizes steps and movements. The sensory aspect is
not primary; it is secondary to what it is that you do. There are still
people who teach dance but they don't give a clue as to quality except
that there's maybe an expression in movement. Like I want this to be
just a little softer to indicate that it's about sorrow. But no attention to
the fact that it's the senses that organize the movement. I look at the
sensation of the movement. That's the primary difference between me
and other traditional modern dance teachers. That's the problem I have
with the class the whole time. How much sensing should I do and how
much moving should they do? A lot of them just want to move but you
really have to do your sensing work. Where is that going to fit in and
how can it link up with the moving? (G.1.5)

Sensing and repetition of movements. Another challenge related to the
central organizing principle of sensing is to find a kind of repetition that
enhances dance learning. As mentioned earlier, when Glenna compared her
teaching with traditional dance classes, she observed that she introduced very
few repetitions of dance combinations, which is uncommon in dance teaching.
To Glenna, "repeating steps at the expense of attending to the way we might
accomplish them" is not worthy (G.D.P.4). She was more inclined to think of
repetition of concept rather than repetition of movement per se:

To me, every moment your senses are lively. They are always picking
up something else. It's like you begin to be a gatherer of a number of
different things. But my goal is to still make it a technique so this is
what I've got to bring together. To put in a certain degree of repetition
but repetition of a certain type that keeps the senses very lively. It may
be the same movements strung together in a different way to show that
there is repetition of a theme or a concept, or repetition of a sense of
awareness, but not of a movement necessarily. (G.I.3)

The next quote provides more explanation about her reluctance to conform
to traditional dance classes on the issue of repetition.

Movement familiarity and habit are equated with a sense of "rightness";
the habitual neurological pathway becomes a well-worn groove. This
feeling is not necessarily equated with efficiency, however. Once the
sensory system habituates, there is no longer an impulse to change.
While repetition in dance technique is certainly necessary for skill
enhancement, it might reinforce dysfunctional movement habits. An
integrated change must evolve from sensing the body in a new, more
efficient way. . . . Rather, we could be sensing our bodies exquisitely as
we move, which would organize our motor system in turn and aid in our
learning. When we relinquish ourselves to drills—mere steps—we lose
the deep, inner sensory experience of movement. (G.D.P.4)

Whole Body Connectedness

Whole body connectedness is another central organizing principle of
Glenna's content knowledge of modern dance teaching. Glenna structured the
total course around six weekly themes: the pelvis (G.O.1), the legs and the
feet (G.O.2), the rib cage (G.O.3), the abdominals (G.O.4), the knee and the hip
joint (G.O.5), and the neck and the head (G.O.6). Each day, a subtheme e.g., a
specific aspect of the weekly body part was a focus. For example, among the
subthemes related to the pelvis were the bones of the legs as the leverage
force of the pelvis (G.O.1.2), the role of the psoas as a major muscle for stability
and mobility of the pelvis (G.O.1.4), and the relationship of leg and pelvis, e.g.,
the pelvis forward and backward tilt, the hip socket articulation with its
possibility of turn out and turn in (G.O.1.3).
Figure 5 presents a list of anatomical themes and subthemes as Glenna introduced them at the beginning of each class. That visual representation has been favored to a listing because it shows the complexity and overlapping of the content knowledge of the instructional tasks. The distinction and relative importance between the weekly themes and daily subthemes is indicated by its place, central or peripheral, in the whole scheme as well as the use of capital letters. Though each week focused on a single body part and each day focused on a specific aspect of that body part, Glenna always took into account the rest of the body. In the same way that scientists zoom their microscopes to focus only on a fragment of the picture or on the larger picture, Glenna’s instructions consisted of an interplay between body part and whole body. The body parts were not studied as isolated and discrete elements but as connected to other body parts and participating in a whole movement. The following quote is typical of Glenna’s introduction of a daily theme that emphasizes the relationship between body parts and the whole body in movement:

Today we will look at the relationship of the foot and its propulsion into the spine. Spine to foot and foot to spine. That relationship we should make efficient for ourselves. I think we have to look in detail so that you can begin to understand what is your gesturing leg, your standing leg. Is there a full connection between your foot and your spine? Is there somewhere that it stops that motion or line of energy when a force is transmitted from the floor to your foot to the body even from the spine back to the leg and the foot? (G.O. 2.2.1)

Any body part reflects the overall movement organization. During the Festival, Glenna chose to present weekly themes in a certain order, beginning with the pelvis and finishing with the head and neck. In interview, she explained that the progression among the different themes could have been
Figure 1: Themes and subthemes of Glenn's classes
different. For Glenna, the order of the themes did not have that much importance because she believed that any body part reflected the whole organization of the movement. Working on one body part or another was a pretext to integrate the overall movement organization:

I looked at the different body parts. Topographically, we started with the pelvis, and it was that same idea that you could organize the body through any place. That was what my intention was with this class. . . . They got the idea that whatever we were working on was a means of finding total organization for body movement and for alignment. It was all about connectedness. (G.I.4)

Glenna not only shared this belief in interview but also with the students in class:

We need to make some changes. There are many ways of getting at it. I may want to work from her head, I may want to work from her shoulders. I may want to choose any other place but for the moment we choose the pelvis. My feeling is that you can find your alignment through anything. You can find it through your arm pit if you really make the connection. . . . The more we can differentiate these small muscle groups to really assist us, it will really help. It is finding a few key little muscle connections that let the whole body be there for you rather than "I have to squeeze that part, and tight that part." It is not about that. It is about sensing relationships. (G.O.4.1.4)

Glenna did not build her class on a progression of physical skills, from the simpler to the more complex, because she believed in the synergistic relationship between the whole and the part, a belief typical of body therapists. Indeed, body therapists emphasize the delicate relationship between whole and part. "Successful realignment of one part of the body," stated Sweigard (1974), "depends upon and leads to realignment throughout the body" (p. 196). For Alexander (1943) too, "the working of any of the parts is affected by the working of the whole" (p. 36). On this subject, Feldenkrais (1972) wrote that
"there is no practical way of correcting an individual except by gradual improvement, alternating between the whole and its parts" (p. 32). Those beliefs reflect a holistic approach, a view of reality that the unified whole is more than the sum of its parts. A holistic perspective implies that both parts and whole are important and emphasizes relationships. Holism seeks inclusiveness, integration, wholeness, and connectedness.

Initiation. When asked the components of an ideal dance class, Glenna promptly answered: "Initiation, sequencing, quality. Awareness of body parts. Anatomical awareness of functional movement. Whole body connectedness" (G.I.6). Derived from the central organizing principle of whole body connectedness is the importance of identifying the initiation of the movements. Initiation is the first step of a long chain of choices that determine the resulting overall movement:

Any initiation is a real strong what I call perturbation of the nervous system. It's really setting off a wave of events whenever you start to move. That can sequence the body in infinite ways. It's really rather profound how many possibilities there are. What I'm looking for is to show people to follow that initiation with the rest of the sequencing so that there is a release through the whole body that takes place. To begin to move initiating with the head, the head moves immediately into the neck or through the body very quickly. It isn't that you move your head and then you move your shoulder, but that that movement of the head if you catch that impulse and have a kinesthetic awareness you've got the whole body already going into movement. If you can capture that for yourself it's at once a simultaneous release of everything in the body and at the same time a very articulate use. So I'm looking at trying to show that through the teaching. (G.I.4)

Sequencing. For Glenna, the connectedness between body parts and the whole body permits initiation of a movement in a specific body part and sequencing the movement through the whole body in an efficient way. Once a
movement is initiated, many pathways are possible. For Glenna, a movement
sets the prerequisite for the next one, and the next one, and so on. Various
chains of possible motor pathways are possible that are not equally valid in
term of efficiency. Consider the following example:

    Rotate first, then bring the leg in passé. If you flex the hip first, you
lose the mechanical advantage. If I bend and rotate, I don't have as
much turn out as if I rotate and then bend. My first action is trochaeter
rotating back and down to meet my sitz bones, then I bring my leg up
[in dance, sitz bones is the term generally used to refer to the ischial
tuberosities]. (G.O.5.2.2)

For Glenna, knowing the specific anatomic details of bodily structures
increases the possibilities of initiating and sequencing the movement
properly. She explained how almost every movement involves more than one
body part and joint. There are many possible ways to execute a movement,
some better than others. According to Martha Myers, Dean of American Dance
Festival, that is the main knowledge that the students get from body therapy
classes:

    They get a sense that there's more than one way to do things.
    Technique alone doesn't change pattern the same way that body
therapies does. It teaches you how to dance but it may not teach you to
move. It does not always teach you to understand your body and the
mechanics of the inside. (D.I.M.M).

The two central organizing principles of sensing
kinesthetically and whole body connectedness imply a sound
knowledge of the mechanical properties of the body. Until
recently, dance teachers and students often lacked adequate or
functional knowledge of the human body (Swigard, 1974;
Myers, 1992). A look at the directory of the dance programs
shows that the situation is improving since more and more of
the dance programs now offer courses in dance science and body therapies.

**Summary**

Two central organizing principles and three derived principles have been discussed in this section. Sensing came back as a leitmotif. Glenna believed that the body is intelligent, to use her own term. By that she meant that the body is self-correcting if new sensorial information is given and if the person becomes aware that there are options other than those in which the person habitually acts. The second central organizing principle, whole body connectedness, points out the importance of increasing knowledge of body mechanics. Maximum efficiency is achieved not by repetition, but rather by finding out appropriate initiation and sequencing of movement at a microscopic level, always looking at the influence of one isolated body part on the functioning of the body as a whole. While this section relied more on interview data to explain Glenna’s rationale for these organizing principles, part three of this chapter will rely more on observational data to describe how the central organizing principles were manifested in instructional tasks.

**On What Bases Does Gienna Select the Content for Her Teaching?**

Glenna’s four sources of knowledge and two central organizing principles, described above, are factors influencing how Glenna selected instructional tasks. This section however will focus on the subject matter, the
students, the environment, and the teacher, as other factors, though of different importance, influencing the selection of instructional tasks.

**The Subject Matter**

Unlike academic teachers who often have to teach a required curriculum, dance teachers are typically the curriculum planners for their classes. That was the case for Glenna, who had complete autonomy over the content she taught. As a freelance teacher, she proposed the broad lines of a course to the American Dance Festival, who accepted it. In her advertisement sheet, she described her class as follows:

In an intensive dance program dancers must know their bodies and movement habits well enough to avoid the build up of tensions and strains from over use. In this class, students will explore ways to realign, reeducate and restore their bodies from the previous day’s strains. Drawing from the principles of functional anatomy and body therapies, students will learn to quickly movement “residue,” kinesthetically reframe their understanding of their “center” and expand their movement potential. (G.D.A.B.)

To achieve this purpose, Glenna presented a number of specific instructional tasks that did come from books or a given repertoire. The tasks were developed from her own exploration of movement from which her theorizing emerged. Glenna had a heuristic approach to planning and spent a considerable amount of time planning:

I usually plan in spurts. I'll plan a whole theme for like a week and I'll start brainstorming: Monday will be this, Tuesday this, Wednesday this, Thursday this, Friday this. I would say that I don't usually spend more than a half-hour to an hour at a time but over the course of a day, I might think about things a lot. I might work on it a little bit in the morning when I'm at the pool, and usually at lunch I run out of my office and put on the music and start moving or something like that if I have a few minutes between work and class. At night when I go home after dinner, I start doing some movement planning. So I would say usually around 2 hours is engaged in that kind of activities but I try to
leave myself open to when I'm receptive to it rather than to sit down
and arduously work it out . . . I don't usually put a goal down first. I
usually just start moving and then I realize what it is that I want to say
and the theory emerges out of the factor. It's not the other way around.
(G.1.6)

From a broad outline of movement themes, Glenna engaged in
movement exploration from which emerged the specific
objectives for each instructional task. Glenna's planning
practice may thus be linked to Schön's (1983) notion of thought-
in-action, which claims that theory emerges out of practice and
practice informs theory. Glenna also explained how she favored
the planning of the tasks per se. That concurs with the result of
research on planning in physical education that showed that
most teachers plan in terms of activities rather than in terms of
formal objectives (Placek, 1984).

The Students

Glenna's perception of the students' intellectual and physical
characteristics influenced her choice of instructional tasks. For example, she
said that the spine was not included as a weekly theme because the students
hold misconceptions about this body part. She preferred to work on the spine
indirectly through other themes such as the head and neck (G.1.6). Glenna
also described the group as having a "lack of anatomical knowledge from a
kinesthetic perspective, and a total unfamiliarity with the body therapies"
(G.1.1). That pushed her to strive for a delicate balance between sensing
activities and anatomical analysis:

In that class it is a real melange of students. Some are rank beginners.
They just can barely do a piqué and plié. They're very basic. Others are
quite advanced. Then of course this whole week we've had the Dance Update people with us who are extremely advanced. They crave the subtle kinesthetic work but the younger students and the less advanced students do not. They want the concrete, where is a bone? This is it. They relate to that much more concretely than if I had them do some subtle sensing stuff. So I also thought in those terms. They definitely need a very concrete approach. At the same time they need to really have an ability to take on and sense as much kinesthetically as they're able to handle. (G.I.6)

The evidence for achieving such balance between sensing activities and anatomical analysis in the actual teaching will be presented in the third part of this chapter, which will address Glenna's teaching practice. Interestingly, when asked if she selected her content with individual students in mind, she answered that she rarely focused on individual characteristics of the students. But as the conversation went on, she clearly expressed goals for specific individuals. For Glenna, closely related to having individual goals and more important, was her wish to have more time for individual interaction with the students:

The real situation is I really have so little time to think about each person in that class that I have fewer goals for each one. It's like I see them in a moment. I know that there is something that they need to get at and I go to them, and I try to work with them on the spot. . . . It's less that I have a goal for them. It's more that I wish I had been able to have more hands-on time and work with each one individually. . . . By next week I will strive to do a lot more hands-on with them and individual goals. For example, well, with Jane, the one with the scoliosis, I think my big goal for her is to have her not force herself to do quite so much. Like she's constantly trying to force her turn-out. She has very little turnout available to her and she is constantly trying to force her body. What I'd like her to get is a sense of her body as a unit even though it's asymmetrical. Randy: If she could get a more mid-line organization, more a sense of the whole. In a way, it's the same goal as it is for Jane. (G.I.5)

The point to make here is that specific individuals motivated the presentation of instructional tasks though Glenna paid little deliberate attention to that aspect. In those cases the decisions
seemed inadvertent. No formal means of diagnosing student ability prior to the task was employed, and it is fair to assume that no specific follow-up tasks for specific individuals were planned, though follow-up tasks probably were presented spontaneously as were the initial tasks. There were tasks presented according to individual needs but they were not explicitly examined as such. That might be related to Shulman's (1987) notion of wisdom-of-practice. He stated: "The potentially codifiable knowledge that can be gleaned from the wisdom of practice is extensive. Practitioners simply know a great deal that they have never tried to articulate" (p.12).

The Environment

Another factor that influenced Glenna's selection of instructional tasks was the specific environment of the American Dance Festival. More specifically, the main factor that influenced Glenna's teaching was the fatigue of the students due to the fact that the class took place late in the afternoon after four-and-a-half hours of dancing for most of the students. Talking about the tiredness of the students, she said: "I cannot come in with a hard and fixed rule because I don't know what I'm going to encounter" (G.I.4). When asked how her teaching varied from the past years, she specifically mentioned the scheduling and associated tiredness of the students:

I changed it [the class] completely. I think the reason was first of all a very different time of day. These students had had a lot of input that whole day. What I began to discover is if I lie those students down, especially now in the third week, fourth week they will not be able to follow. All they want to do is lie down and sleep. It's just not going to
work. . . . I noticed that every time I planned a class on the floor unless it is the very beginning of the week they can't tolerate it unless it's a very specific lesson like now we're going to look at this muscle group and now do these things. (G.1.3)

Not only did Glenna mention the fatigue of the students many times during the interviews, but she also did in class:

I know it is Friday afternoon and you are ready to die, but we just have half an hour left so [laugh] stay with me. (G.O.3.5.3)
Everybody wants to die and go home (G.O.6.1.8)
You look like a bunch of dripping noodles. OK I know you are so tired you are going to kill me but anyway, one more thing. (G.O.3.5.5)

Despite the students' fatigue, the interviews and the data indicate that Glenna rarely radically changed her planning. Rather than reducing her standards, she found instructional strategies to meet the students' level of energy. For example, rather than performing movement of the torso and arms in a standing position, she had them sit on chairs. On occasion, Glenna coped with the students' fatigue by presenting relaxation activities:

The work is very dense. It requires their full body attention. They have had all this other input all day. So balance recuperative work with actual work. If I give them nothing but constructive rest, my suspicion would be that 3/4 would fall asleep and then those who want to move would be frustrated. There are several people in that group, even if they're tired they want to move. It's the others that are just like wiped out and would like to lie on the floor and do nothing, or sleep, or massage. Occasionally, I will give them that option. I'm just going to break format and say, "okay, we're going to do massage like we did that time with the feet." They just so wanted it and I felt it was okay. I felt like their mother giving them a cup of warm milk before they go to bed. They really appreciated it and I think that it helped them. (G.1.3)

Student tiredness not only influenced Glenna to modify her instructional tasks but also led her to adopt a specific structure for the unfolding of the class. She did not include standing-up tasks performed on place:

In previous years I had classes that would agree to lie on the floor for 45 minutes and do connective movement but this class will not. They're at the end of their rope by the end of the day. They can't take it any more.
I can't stage it like a typical dance class: first we do sitting movements, then we do standing movement, stand in one place and then cross the floor. This is not going to work for these people. Like today, we warmed up on the floor, then I made them cross the floor quickly. (G.I.4)

Grossman (1990) pointed out that "teachers' knowledge to be of use for classroom practice must be context specific" (p. 9). That means that teachers' knowledge must be adapted to the specific students and settings in which teaching occurs. Glenna's way of coping with the fatigue of the students indicated that her knowledge was context specific. However, one may ponder on the accuracy of Glenna's perception about the fatigue of the students. Glenna did not verify the students' tiredness in any deliberate ways.

The Teacher

Glenna's physical needs and emotional states were the last and most important factor influencing the instructional tasks she planned and presented in class. Glenna wanted to benefit from the class. The first day of the Festival, she said to the students, "I teach this class because I like this class. I need it for me" (G.O.1.1.1). In the next quote, Glenna expresses clearly how her psycho-physical needs in consideration with the students' needs influenced her choice of instructional tasks:

I'll have my own body needs, and they may be very acute. I've noticed as I've gotten older that certain body needs become more acute. As I go through various stages in my life, I really need to be paying attention to certain types of things. So [when planning] I will start really working with myself and then saying to myself, "well, then, how can this also benefit them?" I will need to then bring it into a larger realm about how it can really be of interest and use to others but many times it is my own maintenance that I'm also focusing on. (G.I.6)
Glenna also expressed that her emotional state sometimes motivated her to modify the lesson plan. Though she typically spent two hours daily thinking about her class, on a few occasions she gave up her lesson planning depending upon her daily mind-set. When watching her teaching on video, and asked directly on what bases she presented a specific instructional task, she explained:

What I kept trying to do was to take the day before where we had worked on just head as weight, and head as direction, and freeing the neck, and put it into movement. But I wasn't ready for it yet. Maybe they [the students] weren't ready for it either but I wasn't ready as a teacher to take them in that place. I kept making up movement sequences and none of them seemed authentic. They all seemed to sort of ring false. . . . So I said I'm going to throw the whole thing out. I'm going to just work on visualization, and get them into a deeper sense of what we did the day before. So that was why I really chose to do that hands-on work. . . . So, it depends a lot on where I am. I may set forth with a whole set of goals and objectives. Then I realize that my body and my mind body is not in the place when I originally had set the goals intellectually, and those things are too cerebral, and they have nothing to do with where I am organically, and I need to then be able to check in with myself organically, and be able to say, "This is where I am and this is where the students are. How can we make something together that is mind, body organized." I walk in and I say how available are they to me today?"

And it's always a question I ask myself. I plan these things at least on paper. This is what is my availability. Then I've got to look at my body availability. There are days I walk in and I go "Hey, am I going to be able to do what I planned?" Because a lot of times I'm not really in a great position, and I haven't really been dancing. All those things come into my mind and then I go well what can I do? And what can they do? How am I going to match? (G.I.6)

As pointed out in the above quote, Glenna's decision about taking in account her own need when selecting instructional tasks to present to the students was linked to her desire to do authentic teaching. To her, that meant to present movement experiences that she deeply embodies herself in the here and now of the class.

I'm trying to let myself be a little bit more spontaneous. I used to plan down to the nth degree everything that I wanted to do in a class. I'm
now trying to come from a place much more authentic in terms of my own movement. . . . I'd say this is the first year, I felt freer to experiment. If it works, it works. If it doesn't, I may try something else. Before there was too much material and I have cut back. First, I used to feel I had to be here all the time or I wasn't really doing my job, this kind of thing. . . . I do something that I feel is valid and that's okay.

(G.I.2)

Glenna's own state greatly influenced her instructional decisions. One may question the implications of such a practice. On the one hand, some might suggest that this approach threatens the integrity of the subject matter taught. Some would argue that standards for developing, selecting, and presenting instructional tasks must be content knowledge based. On the other hand, others may argue that selecting instructional tasks on the basis of personal preferences is defensible because the students will eventually benefit from the selection of instructional tasks that are meaningful for the teacher. Glenna's references and conception of authentic teaching indicates that she belongs to this latter group. Within the parameter of a curricular content consisting of six weekly themes, Glenna allowed her teaching to be influenced by factors such as her desire to have an enjoyable class for herself, her desire to pursue a personal issue, her teaching strengths and weaknesses, her daily mind-set, etc. To decide whether one thesis is more valid than the other is beyond the scope of this study but offers an interesting line of reflection.

Another source of influence on Glenna's selection and presentation of instructional tasks was her past experience. Throughout the years Glenna
noticed that dancers overuse the structure of some specific body parts.
Consequently, she tried to work specifically on physical skills identified as
problematic for modern dancers such as the tendency to flatten the spine
rather than respecting the natural curves of the spine (G.O.3.2.5), or the
tendency to bend the torso from the sacroiliac joint rather than from the hip
joint (G.O.5.2.4). The following quote develops why she presented a task on the
extensor muscles.

I work on their extensor muscles because the ballet dancers have
wonderful extensors and usually weaker abdominals by comparison.
Modern dance is almost the opposite. Weak extensors and really strong
abdominals. So all the extensor muscles really work and to teach true
extension, getting the spine to lengthen and all that. Once they
understand the depth of abdominals work I think it would be real useful
so let's see how that goes. (G.I.2)

Glenna's teaching experience provided her the capacity to
discern what is important to attend to. Berliner (1988), in his
theory of development of expertise, pointed out this capacity as
a characteristic of the expert teacher. Shulman too (1986b)
noted that understanding was an important feature of
pedagogical content knowledge: "We expect the teacher to
understand why a given topic is particularly central to a
discipline whereas another may be somewhat peripheral" (p. 9).

Summary

It is common to look at teaching situations as the interaction between a
teacher, a subject matter, the students, and the environment, each component
having, at different times, a greater or lesser influence on what is actually
happening in the class. Compared to other teaching situations, the subject matter was not as constraining as it is in other teaching situations. Glenna did not have to follow a given institutional curriculum. The idiosyncratic nature of the class left her room for developing and selecting instructional tasks.

The data revealed that students influenced her choice of instructional tasks in several ways. According to Grossman (1990), knowledge of students' understanding is one component of pedagogical content knowledge. She claimed that "to generate appropriate explanations and representations teachers must have some knowledge about what students already know about a topic and what they are likely to find puzzling" (p. 8). When Glenna chose not to work on the spine directly because of students' misconceptions, she showed understanding of students' knowledge.

The constraints of the environment, another critical aspect of content knowledge, also influenced Glenna's choice of instructional tasks. On that matter, I illustrated how Glenna made some assumptions about her teaching environment but did not question her assumptions. That seems to me an interesting line of reflection. Teachers transform their subject matter to adapt to the specificity of their teaching context. Their conception of the teaching context is thus crucial when transforming their subject matter. To investigate in detail how teachers develop assumptions about their teaching context appears to be a worthwhile direction of research.

Finally, the data revealed that Glenna's own physical and personal needs were of prime importance in the selection of the instructional tasks. To be maximally sensitive to another body, Glenna believed that she must be maximally sensitive to herself. Her relationship to her own body was a
fundamental element in her teaching. Glenna valued authenticity, which consists in experiencing herself what she teaches. This view has been discussed in relationship to her accountability vis-à-vis the subject matter.

Synthesis of Findings and Discussion

One general finding of this section is that Glenna possesses a broad knowledge of the subject matters of dance, body therapy, and physical therapy. Glenna's understanding of the content of these various subject matters (though body therapy is barely defensible as an established subject matter) enhanced her ability to offer in a highly personal way the class she refers to as Technique Lab/Performance Improvement. Through continual personal exploration, she integrated a wide range of experiences into unique and original teaching and hence challenged the way typical technical dance classes are taught. Her class raises many questions about the nature of the subject matter she teaches, questions that she is actually debating herself. Actually, the problem may be addressed in two ways. What is the subject matter Glenna transforms from? And what is the subject matter Glenna ends up with?

A central feature of pedagogical content knowledge is the transformation of subject matter knowledge into forms that facilitate the learning of that subject matter (Marks, 1991). The specific transformations of subject matter must build on a particular conception of the subject matter and teaching. On that matter, the data showed that Glenna's teaching does not
spring from a single source. It is the result of her personal integration of the subject matters of dance, body therapies, and physical therapy.

The data also showed that the integration process ended up with forms that are not closely bound up with the initial subject matter of dance, body therapies, and physical therapy. Two interpretations might be suggested: From the blending of dance, body therapy, and physical therapy, Glenna is either creating a new subject matter (whatever it is called), or is pushing the boundaries of what occurs in technical dance teaching. To reflect on these two possible interpretations, a brief historical review of dance technique teaching will be provided in the next paragraphs.

The present conception of technical dance teaching originates from European ballet, which typically adopted a rigid curriculum derived from either the Italian-based Cecchetti school, the Russian Vaganova style, or the British Royal Academy of Dance. The ballet masters and mistresses taught their rigorous training technique with the attitude that their dance technique was the universal basis for all dancing. This authoritative conception of dance technique was shaken, at the beginning of this century, by American and German modern choreographers who developed new concepts of expression closely linked to modern social issues and who opened schools to teach their technique eponymous. The teaching of Limón, Cunningham, Graham, Nikolais or the German Folkwangschule can be cited as examples. The next change occurred when the New York Judsonites revolted against the academic character of the modern techniques, which had become tightly codified and formalized by mid-century. The Judsonites questioned the standards of any right or wrong way of dancing, replacing them with critical analysis. They
rejected any orthodoxy and reconsidered all movements as material for dance.

Talking about the Judsonites people, Jowitt (1988) wrote:

The rejection of elitism and hierarchies and the attempted democratization of dance's processes, ingredients, and nature became the focal points—with one goal being to free the dancer from the tyranny of rules, ideals, and "technique," as it had come to be taught. (p. 8)

The Judsonites opened the door to a dance that is still in search of proper labeling, sometimes being classified by specialists as new, contemporary, postmodern, experimental, or recent (Davida, 1992). With the exception of a few who attempted to create "new dance academies" (Davida, 1992), the people of the new dance never developed a "danse d'école" (Huxley and Burt, 1987). When teaching, most of the choreographers of the new dance usually direct a personalized warm-up followed by an offering of their own choreographic sequences. According to Davida (1992), the only common values of this teaching is "an interest in kinesthesia, individuality, and eclecticism" (p. 19).

Glenna is neither a choreographer nor a performer of the new dance, but nevertheless offers classes aiming at answering the demands of the new dance. As pointed out earlier, when addressing the issue of styleless dance technique classes, the dance community presents specific needs in term of training (Wilson, 1990) and Glenna's background provided her with the knowledge to work in that direction. The driving force of Glenna's teaching, sensing kinesthetically and whole body connectedness, served both tendencies of the actual dance scene, from the natural/pedestrian movement to the highly athletic/gymnastic movement.

To conclude, the research question "what does Glenna know and believe about the teaching of modern dance?" led me to identify four sources of
knowledge, two central organizing principles, and one major influence on Glenna's selection of the instructional tasks. Moreover, the analysis of the whole data set led me to address the question "what is the subject matter Glenna teaches?" Glenna is either creating a new subject matter (whatever it is called) or is pushing away the boundaries of what occurs in technical dance teaching. The brief overview of the evolution of dance teaching showed to what extent the historical and cultural context informs Glenna's teaching. Still, the question as to which interpretation is most accurate cannot be answered easily.

The situation is perplexing for the different actors involved in this case study. Glenna's uncertainty about the definition of her practice has already been presented. The students were also confused. One student mentioned to me that the class did not teach how to dance but taught how to move. Another wrote on the critical incident questionnaire that the ideal situation for learning dance would be "to combine these two techniques [Glenna's class and typical modern dance class]" (G.I.C.1). Both comments reflect a perception of Glenna's class in contrast to "real" dance classes. Gudmundsdottir (1987) cautioned about the danger of losing the structural identity of a subject matter in the process of transforming the subject matter: "In the process of reorganizing content for teaching, teachers have to organize and respect constraints imposed by the structure of the discipline. Teachers should not replace the structure of the discipline with other structures that are alien to it" (p. 4). In Glenna's case, one can ask if losing the structure of the discipline reflects the development of a new discipline or the expansion of the current discipline.
Part 3 - What are the Teaching Practices Exhibited by Gienna?

Part Two of this chapter has focused on Gienna's knowledge and beliefs. Only a few examples have been introduced about Gienna's ability to represent her knowledge pedagogically in instructional tasks for the students. This part of Chapter IV moves from content to representation of content for teaching. Teachers of any subject matter must be able to transform broad intentions into specific instructional tasks, structured in a certain manner to accomplish goals. Any teaching situation can also be described in terms of the climate prevailing in the class. In this last part of the chapter, I will first describe the instructional climate of Gienna's class. Then I will address how the content was manifested through learning tasks. Finally, I will examine the patterns of tasks within and between lessons.

What Is the Instructional Climate and How Is It Conveyed?

The expanded notes taken during each day of observation reveal that the instructional climate prevailing in Gienna's class was neutral, safe, and egalitarian. Each aspect will be described in the next section. Before turning to the climate itself, I will however briefly examine how good planning and management of the material and time provided the foundation for the task-oriented environment in which the climate emerged.

Each day Gienna wrote her lesson plans, including not only the description of the tasks but also the objectives. An example of the standard format for the lesson plans is provided in Appendix H. The materials used for
the daily classes, such as the anatomy book, were always prepared so Glenna did not lose time looking for the pages of the illustrations she wanted to show to the student. The musical equipment was ready at the beginning of the class. Every day Glenna carried her own equipment though she could have used a tape machine belonging to the Festival. She preferred to use her personal tape machine because she knew its reliability. An interesting aspect of her management of music was the use of a battery-powered tape machine in order to bring it to any location where she lay down to do the exercises with the students. That way, she did not have to stand up and walk to the tape machine to start and stop the cassettes for every exercise. The cassettes were always cued. Only once during the entire six weeks of the Festival did she have to search for specific music. That took no more than one minute, and she apologized to the group, saying: "Let me play my music. I planned it for yesterday, and I forgot what exactly it was to do" (G.O.3.5.4). All the classes started on time, and there was no time wasted during class. In her planning no time estimates were written but she usually covered all the tasks planned without pushing the group. Though Glenna never wore a watch, she always finished exactly on time. Thorough planning and good management contributed to the task-oriented climate.

A Neutral Climate.

As the students entered, they sat or lay down in the center of the studio where Glenna was already or where she promptly joined them. Most of the time, the first half of the class unfolded with students on the floor. Grouping with partners occurred smoothly. As the class proceeded, the students
performed the locomotor steps across the floor in small groups. The class always finished by stretching in a circle. During the class, students frequently went to drink water, which was highly recommended in North Carolina weather. At any time, the students could take a rest (e.g., lie still for a few repetitions of an exercise). On that matter, Glenna explained:

"Moments of stillness, that pause for observation alone, is where re-education of the nervous system begins. Quiet observation helps organize the nervous system in several important ways. It prepares the nervous system for movement by focusing, distilling and refining neural stimuli, and it gives the nervous system recuperative time to release effort, learn and integrate new patterns." (G.D.P.4)

Glenna never sanctioned any student behavior either positively or negatively. When a student stopped participating because of either fatigue or injury, Glenna simply reacted with comments such as,"Do what you need to do for yourself" (G.O.4.3.2). In brief, structures for students' behaviors were clearly established and carried on within a neutral emotional climate.

The neutral climate was businesslike. Throughout the class, verbal interactions consisted of Glenna giving instructions to the class, students asking questions, and the students briefly exchanging feedback while working with a partner. On the first day of the class, Glenna introduced her name and briefly described the goals of the course. Without any other preambles, she engaged the students in the actual doing of the tasks. Verbal interactions between her and the students were always directly related to the dance tasks of the immediate lesson, with the exception of two classes that began by Glenna asking the students their opinion about the dance concert of the evening before. At midfestival however, Glenna in her own terms "opened a forum" and regretted it very much:
I had walked in the classroom and made the ridiculously erroneous mistake of asking the class how they were dealing with the material, which is something you just don't do. You might do it with people who are teachers, but with students no. You just teach. Don't give them this wide range to say anything they want. That's when that one woman made that comment about "When are we going to get to alignment" as if I hadn't done that since the beginning. I said to myself, "I don't believe this is happening". . . . I just practically cracked because I was feeling very emotional and fragile for a number of reasons that day. I was in total turmoil. I thought I'll never make it. What to do? That's when we got on the chair working on shoulders and rib cage. Not only did I get through that class but it actually was a good class. When I really think back on it, you just can't do that with beginning students, to give them free reign to critique your class. That is a complete cop-out. You have to lead. I'm glad that I never got to the stage where I just kind of admitted I just couldn't teach that day. It's not that you can't be vulnerable, but there's a point at which you must lead. (G.I.4).

As an outside observer, nothing of Glenna's psychological processing showed up. When the student asked the question, she answered that so far the purpose of the class was actually alignment, and that if the student had specific concerns she was welcome to talk with her at the end of the class. Glenna then continued the class as usual with the exception that a few moments later, for the first time, she included exercises performed seated on chairs. Even at the end of the class series, Glenna avoided an open forum for discussion, remaining highly task-oriented. The last class finished by her saying "Ok, that's it folks. Good luck in your career everybody. Maybe I will see you back here next year. It has been fun" (G.O.6.5.8). When asked to comment on the episode, she said:

I don't want to give them a free-for-all. Don't criticize me now, now that the thing is over. It was almost like that I felt. I know that some of them were mystified by certain things but I know others got certain things of value so I'm going to be happy with that and not push it. I think sometimes people promoting forums either need a lot of reinforcement for themselves, or they're rather confident of what is going to be said. (G.I.6)
It is not that Glenna did not think that verbal expression was important, but, as she said, "There is a very specific time and place for it" (G.I.5). Glenna wanted to create an environment in which the active learning time of the physical tasks was very controlled by limiting the amount and kind of verbal interactions within the class:

[To] leave a forum open [is] to let them [the students] teach themselves. In other words they can say, "Oh I want to know more about this." They're the ones now in control of the class. You end up letting many minutes go by in the class with a lot of discussion. . . . I feel in a way it's a cop-out. As the teacher, you come in with a very specific idea about what you want. You're the one in the lead. . . . "Oh let's get together and talk about what we've learned and share our experience and discuss what we liked or didn't like." That's very American. I just don't like it. What I prefer to do is not talk about this. Rather, we're going to use movement to hopefully clarify what those questions are. Try to use movement as the tool for understanding. That's why I have deliberately stayed away from discussion. When you give people an open forum, they start coming up with their personal issues and it's very easy to lose the rest of the class. In a way I feel that I have a responsibility to let everyone be able to get as much out of that class as they can. If someone has an individual problem they should come to me separately. (G.I.3)

Glenna indeed made clear at the beginning of the Festival that she was available after the class to answer individual questions. She typically spent five to 15 minutes after each class talking individually with students, and often one hour in privately arranged sessions.

The evidence on Glenna's verbal interactions illustrates how the control of the verbal interactions may have served two purposes. First, restricting verbal interactions probably allowed optimum time for learning tasks, which was a major concern of Glenna. Second, keeping the verbal interactions to a minimum may have contributed to the creation of a neutral climate. Indeed, in the absence of open dialogue, it is likely
that the climate will not be highly positive or negative. A neutral climate was desired by Glenna, who wanted to avoid criticism even if it meant curtailing of immediate reinforcement from students.

The control of instructional and managerial tasks did not prevent Glenna from allowing individual freedom within the structures of the tasks. The students were encouraged to modify at will the tasks to accommodate the different skill levels and body types. Within the controlled sequence of tasks, individuals were invited to make decisions by themselves such as at what rhythm to perform the exercises, range, and number of repetitions. Individual differences were valued. Glenna constantly used expressions such as "See for yourself" (G.O.3.2.4), "See how you organize yourself to do that" (G.O.4.1.6), "Don't force it, see what you are able to do" (G.O.2.4.3), "Let's take a minute to think what can I do for myself to make it easier" (G.O.6.2.4).

A Safe Climate

A safe climate prevailed in the class at intellectual, emotional, and physical levels. How Glenna contributed to the creation of a safe climate at each level will be described in the next paragraphs.

A safe climate intellectually. At the beginning of the classes, Glenna always introduced the theme of the day. Here is a typical introduction of a class: "Today we will work on the ilio-psoas and focus on it as a means of connecting pelvis, spine, and legs" (G.O.1.4.1). Throughout the different tasks of the lesson, Glenna kept repeating the objective of the class over and over. Commenting in a class having as subtheme initiation with the head, she said:
I must have said it a thousand times during the class: "My whole head." It's amazing. You'll say the whole head and it's like they don't even recognize their head at all. They're in their hips. They're in their feet. They're in their back. They're in where they feel the biggest amount of stretch. That's why I keep saying it. It's not that I'm just trying to be ridiculous. I see that they're not getting it. Their attention is really where they habitually like to put their attention. (G.I.4)

In the middle of the class, she sometimes related the task the students were doing to some work done earlier:

Let's review what we did yesterday. One of the visualizations we did was a connection between the sternum and the upper thoracic so that there is a line of movement coming up and back. Now, let's take that in view of the fact that the arms are now a little more aware of themselves in the trunk. (G.O.3.4.2)

Often she summarized what the students just did: "We have just spent a good half an hour moving the pelvis. Now the pelvis is moving with gravity in upright position" (G.O.1.2.9). Those frequent clarifications contributed to a safe climate intellectually.

Another contribution to an intellectually safe climate was that Glenna gave simple tasks that did not require memorization. Only twice did she give a long task preceded by a long explanation. Interestingly, after finishing her long explanation, she invited the students to focus on the goal of the exercise and not that much on the details just described thoroughly. Because her priority was on kinesthetic sensations and not on the exact replication of spatial configuration of the movements per se, she finished her explanation by restating the goal of the movement and inviting the students to move on their own while keeping in mind the goal of the exercise:

So what we are looking for is the ability of easing the neck and letting the whole head turn so that when you release it is the spine that takes the body in full length. You have very little effort with the neck muscles. If you get lost in the pattern, just improvise, if you're not sure
what side, don't worry, just improvise. Find the ease of the neck.
(G.O.6.1.4)

So even in the cases of a long movement sequence, Glenna found ways to adapt
the instructional tasks to the students to make them feel safe intellectually.

A safe climate emotionally, Glenna contributed to a safe emotional
climate by dedramatizing elements of learning activities. Often, she
mentioned that learning takes time and that she herself was still in the
process of refining her body organization. She never communicated a
condescending attitude or superior ability. Rather she sometimes showed her
own struggle with the material:

It is an alignment problem that I have struggled with for years and am
still working on it. I am convinced that by the time I am sixty it will be
perfect. it is just that it [the shoulders] is down that way, and it tends to
depress the upper rib cage. If the whole thoracic spine is depressed it
will automatically throw my shoulder in elevation and forward
contraction. it will not give me any mobility. I have to learn to release
in the upper rib cage to allow that to spring up to support my clavicle.
(G.O.3.2.2)

Glenna also contributed to a safe emotional climate by smiling and laughing.
She expressed gaiety and amusement. Although she talked constantly, her
voice was not annoying. Her voice brought "life" to the class, becoming softer
to accompany more internal work such as the visualization and more vigorous
to adjust to the dynamism of the dance combinations at the end of the class.
She empathized with the students' learning difficulties and tried to create
stress-free situations. For example, she explained how she avoided putting the
focus on individual students while providing corrective feedback and how she
even developed strategies to avoid giving corrective feedback:

If I really feel a person is having trouble, the trick that I'll use is that
I'll say "Now let's work with your partner," and I will choose that person
as a partner. . . . So that she got a lot of encouragement and a lot of
feedback from me directly without me pointing her out in a crowd. . . .
The nature of sophistication of that material makes them very self-conscious. To say "You're not doing it this way; I want you to do it some other way" makes them get more tense because they're trying to please me. Then they usually end up screwing it up even more. They're doing much more than they need to do and not getting the organization that I think that they need to find for themselves. Rather what I'm trying to do is give them work with partners, or "Let's do it again this way," or give them another movement experience to see if they can discover for themselves "Oh, that wasn't quite right." (G.1.5)

Gienna also created a safe emotional climate by encouraging the students to develop a nonjudgmental attitude:

Notice if the pelvis of your partner tilts. Perhaps it tilts forward and back. Maybe it shifts one side or another. Ideally in dancing, it goes straight up and down without going forward. If it is going forward then the gluteus muscles are too tight, so you are not getting enough flexion at the hip joint. Do not make a value judgment but notice. We only take this information into our assessment. We do not make judgment about the person. Tomorrow she could be different, but generally speaking people have patterns. These patterns are simply something to observe and work with. For dance purposes, it is very important that we carry our weight equally and learn to shift equally. (G.0.2.2.1)

Final evidence of a safe emotional climate was revealed in Gienna's evaluation practice. As mentioned earlier, the students had the opportunity to earn academic credits. Gienna's evaluation was based on attendance and thus was not stressful for the few students in the class who asked for credits:

If they're getting credit, they more or less have to be there the recommended amount of time. If they're there the recommended amount of time and I see that they have a basic openness to the material and I'm getting some feedback from them that something is happening, no question, they get an A for the course. That's the way I feel about it. If I see that they're making an attempt to really internalize what it is that I'm trying to teach them, that they're being available and open to information. . . . Basically I'm going to grade them according to their willingness to take in the information. (G.1.3)

A safe climate physically. One of the main consequences of Gienna's knowledge of functional anatomy was that the tasks she presented in class were biomechanically well designed, minimizing the risk of injuries, and even contributing to reeducation for those injured. In class Gienna emphasized
how the structure of the body affects the range of movement. She often explained different executions of the students by the fact that individuals have different body structures. It led the students to work with respect to their own morphology. For example, she said: "One more time, some people with short Achilles will not be able to keep their heel down, just work at whatever level you can" (G.O.1.3.12). She explicitly expressed that the students did not have to please her by copying her, but should discover how to take care of their well-being by working within the limits of their body types:

I don't know if we find this only in dance but people are so set on doing the right thing. They like doing the exact way of doing things. I would say that above all it is the biggest frustration. To at once impart to them that they can let their own individuality come through in a movement is hard. They're still struggling to give me what I'm looking for and what they don't know is that I'm really not looking. . . . [I want to] get their attention and then to really make it stay with their body. They're not trying to please me. They're not trying to do a whole bunch of things because this is what is required but that they're really going to learn something for themselves. That's what I'm really intent on having them do. (G.I.3)

Working with respect to individual morphology was very important within the American Dance Festival. Dancing six hours per day for six consecutive weeks, the ADF was a physically stressful time for the dancers, who were mostly not well prepared for such a competitive environment. On that matter, Glenna was a resourceful person. During the second week of the Festival, she participated with four other faculty in a forum that addressed issues such as injury prevention and treatment, recuperation, and the eating and drinking needs of dancers. All students were invited to the forum, which ended with a long period of questions proving the concern these topics had for the students. The way students responded to Glenna's invitation to stay after the class to talk with her about their personal injuries or problems also proved that students
found in Glenna a real support. The next quote, in which Glenna describes her meeting with an injured student, illustrates how Glenna communicated personal understanding and provided frank advice to her students:

She had a one-year-old injury. She thought that she was on her road to healing and that she would complete the process here. She figured that if she came into an environment like this it would nurture her along. What she didn't know is this is really not that much of a nurturing environment. Basically there is too much stimuli coming here from too many places. I'm not a psychologist but my feeling is that she came with the intent to find help but she found a lot of others who were like critical parents as opposed to accepting and loving and supportive parents. . . . I told her: "I think that you're experiencing too much movement here." That's the way I put it. "You're called upon to produce a certain degree of movement in every class and when you can't produce it you get very discouraged and it is making you worse. You need to just go to some place that's quiet and work only on yourself. You do not need to be exposed to a lot of external influences. They are making you worse. You need to be with yourself and know what you need for yourself and pay attention to that. That means you should stop all this activity. You cannot just go into these classes and expect that they're going to feed you in the way that you expect them to feed you." She reacted well. She wasn't back yesterday and she wasn't back today so I feel maybe it helped. (G.I.2)

Several other behaviors expressed that Glenna cared for the students. She was, for example, always preoccupied by the comfort of the students. She frequently asked them if the temperature of the room felt right, if the light was disturbing, and if they had enough room to move.

An Egalitarian Climate

The class was mainly taught in a circle. Glenna said in class: "I do not usually like a traditional format in which I am in front of the room and everybody is back there lined up. I have never been comfortable with that. I am much more comfortable with people all around, and feeling that there is a democratic approach" (G.O.6.2.1). Glenna provided equal opportunities for
instruction and interaction to all students. The equity in Glenna's behavior refers to the students' gender, ability, experience, and interest level. The next incident illustrates this equitable treatment.

Two Spanish-speaking students were enrolled in the class. One had difficulty with English. During the first week, one Spanish student translated for the other. The second week, the husband of the student having language difficulty started to come to the class to serve as her translator. Soon, however, he became a member of the class as any other student. Having no dance background, the class was nevertheless accessible to him since the class was not built on complex dance combinations. The visitor received as much attention as students formally registered:

My hope has been that the work would be accessible to anybody that comes in. What I strive to do as a teacher is to make it accessible at least on some level to every single person. What's less important than the dancer be beginner, intermediate, and advanced is the dancer not have a lot of pre-existing obsessions about their body. It's almost like they're too narcissistic to really allow other information to come in. If they come in with those preexisting notions then they're closed off to the work. Of course everything that I try to give them is a sense of letting their mind really expand and their senses really expand in order to really conceive and perceive a whole other way of looking at their body and therefore their mobility. (G.I.3)

Glenna gave attention to everyone in the class without discrimination for gender, age, ethnicity, background experience, interest, physical or intellectual skills. In that sense the climate was egalitarian. The absence of dialogue aforementioned, however, prevents the claim of a socially egalitarian relationship between Glenna and the students since Glenna was the one who "had the voice" in the concrete and figurative sense.
Summary

Glenna’s thorough planning combined with good management of time and equipment provided the foundation for the establishment of a task-oriented climate. The class was an organized environment in which optimum time was kept for learning tasks. Student behavior and instructional tasks were teacher controlled, though within the tasks assigned the students were invited to adopt an attitude of discovery. Glenna explicitly stated that the students did not have to please her by copying her, but should discover how to care for themselves and their well-being by working within the limits of their body types. Glenna nevertheless controlled the goals, pace, and means of instruction. In that sense her instructional strategy might be related to what Walberg and Waxman (1983) refer to as direct instruction, a teaching situation characterized by a dominant leader who chooses the classroom activities and functions in a direct, businesslike manner. On direct instructional strategies, the research on teaching effectiveness concluded that it maximizes learning gains. Research has also pointed out that direct instruction may prevail in a positive, negative, or neutral climate. In Glenna’s class, a neutral climate clearly dominated. On that matter the research on teaching effectiveness has concluded that a neutral or positive climate is related to high achievement and attitude (Soar & Soar, 1979).

On another line of thought, the data provide reasons to speculate that keeping the climate of the classroom essentially task-oriented and emotionally neutral served both Glenna’s professional belief and personal vulnerability.
Indeed, the analysis of verbal interactions in the class showed that Glenna was a very emotional person who avoided situations that were likely to engender public criticism. Therefore, it is understandable that she was comfortable in a highly task-oriented climate in which little affect is being expressed, either positive or negative. At the same time, Glenna's professional belief that discussions are often a cop-out, e.g., lead to closure of movement discovery, probably led her to create a task-oriented climate nonthreatening to both her and the students.

**How is the Content Made Manifest through Learning Tasks?**

In this section I will present how the two central organizing principles of Glenna's teaching, sensing kinesthetically, and whole body connectedness were manifested in her teaching. I will first describe six categories and two subcategories of tasks that emerged inductively from the data. These tasks are the instructional representations of Glenna's content knowledge. Then I will address how Glenna communicated the instructional tasks to her students through verbal, visual, and tactile forms.

**Instructional Tasks Categories**

Glenna's central organizing principles of sensing and whole body connectedness were manifested in a variety of instructional tasks: locating, scanning, analyzing, hands-on, visualizing, and moving tasks. In the next paragraphs, I will define each category, provide an example, and discuss how each kind of task reflected Glenna's two central organizing principles.
Although I will present them as discrete tasks, in the unfolding of a lesson they often happened concurrently.

**Locating tasks.** Locating tasks aimed at knowing the body structure and understanding the interplay of force within and on the body. They were usually presented with visual aids such as anatomy books or a skeleton. Here is an example of a locating task:

There is this long and large muscle that goes from the twelfth thoracic vertebra, the red mark on the side of the vertebra [on the skeleton] are the attachment to the lumbar spine all the way down, and it comes down... So here is the psoas P-S-O-A-S and when it joins the iliacus it forms the iliopsoas. It forms a common tendon and it is going to attach to the lesser trochanter of the femur. You can see [on the skeleton] that there is a vertical component right straight down across the top of the pelvis bowl just like a violin string over a bridge, it comes over the bridge and attaches into your leg. It has a horizontal component which is part of the iliacus that is not just straight horizontal but actually has a curve to it and will lie in that inner bowl. It has also a sagittal component, a front back component, so that it will come forward, outward, and downward in the pelvis. The reason your lumbar spine has a curve, part of that is that the iliopsoas is creating that curve for you. The iliopsoas is partially responsible for shaping that curve. As you can see, what that muscle is going to do is really integrate the rib cage, the lumbar spine, the pelvis, and the leg. It really brings all together. (G.O.1.4.1)

With the exception of six classes, all the classes included a locating task, which lasted an average of eight minutes. They were presented at the beginning of the class because Glenna believed that cognitive information supported the scanning, visualization, hands-on, and moving tasks.

**Scanning tasks.** Scanning tasks focused on assessing one's own body state. Executed lying down or standing up, the students were invited to identify symmetry and asymmetry, to notice body tension, to observe breathing rhythm, and to compare position of body parts:
Just noticing how the body lies on the floor. What body parts are you aware of? Feel the three units of weight: head, ribs and pelvis. Where is there tension, weight? Pay attention to fingers and toes. There is space between them. The eyes just sink into the socket. Breathe. Allow the body to feel the curve of the spine. Gravity can take us. (G.O.6.5.1)

Scanning tasks, because of their assessing nature, were often performed at the beginning of the class in a supine position, in the middle of the class before the standing up exercises, and at the end of the class. All the classes presented at least one scanning task lasting between less than one minute to 13 minutes. Scanning tasks reflected Gienna's belief that neutralizing whatever is going on in one's body organism by observing it is the beginning of a long process of body changes.

Analyzing tasks. Analyzing tasks consisted of identifying the characteristics of someone else's body structure and analyzing the partner's movement patterns in terms of initiation and sequencing of movement:

Look at the tone in their legs [the students in a supine position]. Is there one leg bigger, holding more? Look at the symmetry of the body. Look also at the pelvis. Are the legs equally turned out? Where are the toes facing? If the toes are high, it perhaps means that her weight is on the heel. Where is the nose pointed? The nose points usually towards the support leg. The supporting leg is also often shorter than the gesturing leg. Bend their gesturing leg, and place it in different positions aligned to the sitz bones, to the right, to the left, in turn out, and turn in. Try to notice where the line of force goes from the foot into the spine, shoulder, neck, and observe. I want you [the partner on the floor] to feel the relationship of your foot into your spine and observe where there is more tension. A tight muscle will pull you in that direction. (G.O.2.2.1)

Short analyzing tasks were performed in most of the classes. Long analyzing tasks, lasting up to 30 minutes, occurred on four occasions. Gienna expressed her rationale for presenting such tasks when she introduced an analytical task in the first class: "Everybody gets a different organization," she said, "so
it is good to see the combination of structure, past training, and your own attempt to understand how to move" (G.O.5.2.4).

**Hands-on tasks.** Hands-on tasks had many variations. In Glenna's own words, they consisted of "tracing", "molding", "shaping", and "manipulating" a body part. Here is a typical hands-on task including shaping and manipulating:

Take a hand and place it on the back of the person's shoulder blade. What you are doing is giving that person a sense of shape. So you and your hand know that when you put your hand on the shoulder blade it is not so flat. It has a curve. Let your hand reflect that curve a little bit in that person's body so that they can really begin to feel that there is this movable curvy bone that is right there. Take your partner's hand delicately and gently begin to turn the person's hand so that it faces forward and let rotate in their shoulder. You are not forcing their arms. . . . Just knowing the shape of something is remarkable. It gives a sense of ease to that place. So a lot of time we talk about "Does my shoulder belong here or here?" "What should my shoulder do?" Well, it should be just aware of itself. It is a stupid answer but it is true. It does not need to do anything more than be the way that anatomically it is designed to be and that is the awareness that we are trying to bring into it rather than something else. (G.O.3.4.2)

Hands-on tasks occurred in all classes and lasted between two minutes and the entire duration of the class. They were important to Glenna's teaching because she believed that touching helped to acquire accurate sensorial awareness and to release muscular tension around the body part receiving the tactile stimulation:

The hands-on is great because, first of all, even though these people aren't really skilled in using hands-on, it's a very big piece of feedback. That tells them several things. One is where we're focusing. Then that you don't have to use your own muscles so much. . . . With a little bit of assistance they can let go of the excess muscle work. Plus it really gives clarity and definition to their own structure. It forces them to really connect with something outside of themselves that is going to make them move a little differently. They're not just doing what their body always habitually does. They have to dialog with someone outside. I'm finding that partnering is extremely effective in this particular class. They really learn much better. (G.I.4)
Visualizing tasks. Visualizing tasks required students to imagine the details of a movement while actually performing it or not, or imagining the structure of a body part and its relationship with other body parts. Here is a typical visualization task following a locating task:

And now that you know where the psoas is, locate it for yourself in your mind's eye from the lower ribs and up the lumbar spine deep under the organs. Visualizing as you breathe fanning out and down and forward into the inner bowl of the pelvis. As you breathe down into the psoas see what you find in terms of how that affects the pelvis and the leg, or the spine. You are looking at the two sides of the psoas moving wide. As you do this the iliopsoas finds its definition. ... Noticing for yourself, is there a part you don't see, darker, less clear, less vivid in your mind? (G.O.1.4.3)

Many visualizing tasks involved slight variations of the nine lines of movement of Ideokinesis\(^3\). As with hands-on tasks, visualizing tasks occurred in all classes, lasting between two and 48 minutes. Glenna's beliefs about visualizing tasks is reflected in the following quote: "As we think we experience a series of changes in our body. We can experience movement in the rib cage simply as a consequence of activating our thinking in that direction" (G.O.1.1.12). To Glenna, it is important to distinguish between the internal and external eye:

Of course to me the most optimal way of learning is to have a very accurate sense of the inner body while it's moving. Visually you see the outside and visually you see the inside and the two match. The two, those two have to come together in a way that you're not simply a clone of the outside person. (G.I.5)

Moving tasks. Moving tasks aimed to refine the initiation and sequencing of movement through the body. There were two kinds of moving tasks, the ones influenced by the body therapies and functional anatomy

\(^3\) For a presentation of the nine lines of movement of Ideokinesis see Dowd (1983).
principles, and those taken from basic modern dance vocabulary. An example of a moving task inspired by the body therapies is the "pelvic rock" which consisted of moving the pelvis in the sagittal plane, in a supine hook position (G.O.1.3.2). An example of a moving task derived from dance vocabulary is the grand battement while walking (G.O.3.3.6). Most classes had both types of moving tasks. The moving tasks took the largest portion of class time. Their duration varied considerably from two to 22 minutes; a few classes, however, did not include moving tasks taken from the dance repertoire. This will be discussed in more detail in the next section on task patterns within and between classes. Classes never began with moving tasks performed lying on the floor or standing up. Classes usually began with locating tasks to prepare for visualization and hands-on tasks, which prepared students for simple moving tasks on the floor, then standing up tasks travelling across the floor.

Close examination of the six kinds of instructional tasks described above reveals that, during their presentation, brief verbal cues were interjected to either focus on a change of quality while repeating the same task, or to introduce a slightly different task condition. Inspired by Rink (1979), I refer to these two variations of a main task as refining subtasks and extending subtasks.

The refining subtasks. Refining subtasks were repetitions of a task with the focus shifted to a different quality of execution. More specifically, the refining subtasks included repeating the same task with eyes closed, with a special visualization, with verbal cues to notice a particular relationship between body parts, or with hands-on provided by a partner or by Glenna. The example of a battement performed travelling across the floor with the
emphasis on the alignment of the rib cage with the pelvis and supporting leg will help to clarify. After having performed the battement a few times, Glenna asked the students to do more repetitions with a partner shaping their rib cage. Then the initial task was repeated for a few times, but soon interrupted again by Glenna asking the students to continue to do the battement with their eyes closed. In this example, shaping the rib cage without performing the battement had already been explored in detail earlier in the lesson. Applied to the battement, shaping the rib cage aimed at improving the quality of the battement by "refreshing," in Glenna's term, the students' memory of that body part. The repetition of the task with the eyes closed served the same function. Glenna explained that performing the movements with the eyes closed helped students to get out of their visual habits, which are closely linked to a familiar way of moving. Thus, breaking visual habits brought changes in the quality of execution of the movement. In brief, refining subtasks aimed at heightening the students' sensory awareness to improve the execution of an initial task. They were typically of short duration and were used at any moment when Glenna decided that the quality of movement was not satisfactory:

I often do this because I see that they're not prepared to move. They're right back in their old habits all over again and they are not attending to what they need to do. The very thing that I'm looking for, they haven't got, so I have to stop and say, "Now let's do a little visualization or some partnering." That's why I do those things. (G.I.5)

The extending subtasks. Extending subtasks were those tasks that were repeated with slightly different conditions, e.g., adding a new body part, changing a spatial direction, or changing the rhythm. For example, a main task consisted in pressing both feet on the floor in a hook lying position,
which resulted in a raised pelvis. After a few executions, Glenna asked the students to do the same task but with only one foot pressing which raised the pelvis on only one side. Extending subtasks were also utilized at any moment in the class. An examination of Glenna's planning and her statement in the interviews showed that some refining and extending tasks were planned but most of the time they were in reaction to the students' performance.

Before turning to how Glenna communicated these instructional tasks, I will briefly address their sequence in a typical class. As mentioned previously, tasks that emphasized visual, tactile, and cognitive information were done in preparation for motor tasks. For Glenna, the variety of tasks was of prime importance:

They're not going to get it all from movement. They're just not. They have to learn on different levels for them to see, touch, be moved passively, move them themselves, have facilitation of one kind or another. . . . What I try to do is give them a very wide range of opportunities to find the same thing. So if my goal is to feel lightness of the pelvis, if it doesn't work in one set of movements, we'll try something else. If it doesn't work in another set of movements, we'll try something else, and if it doesn't work with partner work, then I work with them. And if it doesn't work with me, we do coaching. There are different levels at which I would try to get at the same thing. (G.I.5)

The importance of representing content knowledge through different instructional tasks is reflected in the language she used when discussing her own teaching strengths:

I think one of the strong points I have is being able to take a really complex thing that's anatomical and be able to really put it in kinesthetic terms for people and vice versa, to translate something kinesthetic into something really analytical, scientific, verbal. That whole thing. That is a strong point that I have that not too many people have. (G.I.5)

Actually, Glenna's classes became a complex network of overlapping locating, scanning, analyzing, and moving tasks intersected with refining and
extending tasks, simplifying and making the tasks more complex according to
the motor responses of the students. Within a class, the tasks were presented
according to a planned progression in order to get at the quality of execution
she wanted. When students did not perform the motor responses expected,
Glenna sometimes simply went back to a simpler task done earlier:

What happened is that with people who are just starting out in this work
and with people who are not very sophisticated in the dancing, as soon
as they start putting something new into practice they go right back
into their old habits as if they never really learned it. I have to keep
explaining again "This is what we're focusing on, remember, this is
what we're focusing on." I'll show them a movement and for sure they
look at me and they go "ah ha." Then as soon as they start moving, they
move in exactly the way they want to move. It's no longer that they're
open to having translated what we just did on the floor into a standing
and moving pattern. It's like they've just put their old self into the
pattern again and so we have to go back (G.I.5)

When dissatisfied with the motor responses of the students, Glenna did not
persist, preferring to offer a different task. This capacity for changing
strategies was viewed by Glenna as a characteristic of experienced teachers,
though she still questioned her approach:

You might have noticed a couple of times I'd start to do something and
they do not respond and I would say, "Okay, that's not working. So now
we're going to do something else." I just didn't belabor it because I
knew it wasn't working. Sometimes more inexperienced people will try
to belabor the same thing over and over again. What I've often seen,
both in body work and in dance classes, and it used to just crush me to
watch it. A teacher would go to the students and try to get something out
of their body, and they wouldn't get it and she'd try again, and they
wouldn't get it, and she'd keep trying and they wouldn't get it, and then
she'd give up and they'd go onto the next student and you know that
nothing made sense to that person what they were trying to get across.
Every time I see it happens a wrench goes through me, like "Oh this is
terrible." I just can't bear to even look at this so if I see they're not
getting it we drop it right away and we try to focus on something else
and come back later. . . . In other people's class, they'll go over it and
over it. I want to say, "Let's try another movement, and see if that
doesn't enhance that one." Instead of going over and over and having
them try to perfect a certain movement through only one specific step.
That's a big question to me. I'm not sure what the answer is. (G.I.6)
Glenna transformed her content knowledge into different kinds of related tasks. This is unusual in dance classes, which typically favor moving tasks. For example, in a traditional dance class, the concept of movement "weight shift of the pelvis" would be most often represented to students through instructional tasks consisting of copying the teacher executing a walk in different directions. To represent the same concept, Glenna utilized many different tasks. Knowing the structure of the pelvis, visualizing it, shaping it, and moving initiating with the pelvis, as well as initiating with another body part to notice the effect on the pelvis were tasks of equal importance. An important feature of Glenna's teaching lies in the intersection of her content and her pedagogy. She represents her knowledge in pedagogical forms that she believes facilitates students' learning.

Communication of Instructional Tasks

In order to answer the question "how is the content made manifest through learning tasks," the next paragraphs will focus on the ways Glenna actually communicated the instructional tasks to her students. An examination of the data revealed that Glenna relied mainly on verbal, tactile, and visual forms of communication. Each one will be described separately though many times these forms of communication were used together.

Verbal communication. Glenna mainly communicated the tasks verbally. The maximum silent time between two verbal instructions was
about 30 seconds. She said: "I talk a lot. Try to sense and feel and listen to my voice rather than copy" (G.O.1.1.1). In the next quote, she expressed her hope that her voice might influence how students attended to their own bodies in a sensory mode:

I feel that my voice is another kinesthetic sense. Because I don't have an accompanist my voice has to create a sensitivity that people can feel about their bodies... I use my voice in a way that it implies connectedness. Then they're going to understand what I'm trying to get at. (G.1.5)

Not only the tone of her voice, but also her specific use of language, aimed at influencing students to pay attention to their kinesthetic sensations. While presenting different tasks, she constantly used sensory verbs. Here are some examples: "Feel what the femur does as it goes to the side" (G.O.1.3.5), "sense how deeply in your abdominal cavity it is" (G.O.1.4.3), "it is not that you squeeze your buttocks and lift your pelvis but the pressing of the feet into the floor allows to soften which includes the sternum" (G.O.4.2.3). She also used adverbs to induce a sensory quality to the execution of the different movements: "Find the ease of the leg coming off the pelvis, the femur swing in the hip socket, easy leg" (G.O.1.2.13), "gently bring your arm over the head, the scapula moving gently" (G.O.3.3.2), "quiet movement, especially the deltoid muscle, he does not like to let go" (G.O.3.4.4). She encouraged working at a personal rhythm by expressions such as "go at your own time" (G.O.5.1.4), "take your time, you have to find the rib cage right over the pelvis and then the spine can lengthen" (G.O.6.4.10). With expressions such as, "see for yourself" (G.O.5.4.7), she directed the students to their internal sensations of movement and not to any external pressure. While doing a movement, she always tried to enlarge the student awareness by expressions such as "What happens to the
rest of the body?" (G.O.6.5.1), "How does it affect the rest of the body if it affects it in any way?" (G.O.1.3.12), "Where in your body is it travelling?" (G.O.1.2.7), "What part does not respond with smoothness?" (G.O.2.2.3), "How much range do you have?" (G.O.5.4.5), "Stay there a minute and ask yourself one big question, what can you let go in your shoulder that will make you easier to stay there?" (G.O.3.4.3), "See how that begins to resonate through your whole body" (G.O.1.2.3). She frequently interspersed short questions with her verbal instructions, questions that students answered mentally. Unquestionably, Glenna's language reflected her belief in the importance of learning with a receptive mode. "Attending to one's sensing self," she wrote, "requires giving oneself over to a receptive mode, not a doing, moving one" (G.D.P.4.), and that is so even while doing movement tasks.

Glen's belief in the importance of developing kinesthetic sense was manifested through her wording. Thanks to verbal expressions, she invited the students to execute the different tasks with a receptive mode. Typical dance classes (Caplan, 1985; Lewis, 1986) favor moving tasks executed in a manner certainly different from the one recommended by Glenna, that is to attend the body "quietly, slowly, gently, easily" (G.D.P.4). Not only through different kinds of tasks but also through a specific use of language, Glenna manifested her capacity to transform her content knowledge into pedagogical forms that she believed facilitated students' learning. According to Marks (1990), some aspects of pedagogical content knowledge are rooted in subject matter knowledge whereas other aspects derive primarily from
general pedagogical content knowledge. The process whereby such generic pedagogical knowledge engenders pedagogical content knowledge is called specification. Glenna’s emphasis on attending to the body with a receptive mode can be thought of as an example of specification. Indeed, it is a learning attitude independent of the content of the tasks. A point can be made here that the success of Glenna’s class reported by many students was a function of this pedagogical feature as well as it was a function of the curricular knowledge of the specific tasks. To continuously ask the students to pay attention to their own inner sensations was perhaps as important as the specific movements they were asked to execute. For example, from the next quote taken from the critical incident questionnaire distributed to the students, one may ponder about the importance of giving the opportunity to pay attention to inner sensations in explaining the success of Glenna’s teaching:

One thing I really benefited from was early in the class when we were first learning to drop the femurs in the sockets (lying on the floor), and it was very helpful to go through one side completely with the visualization and tiny movements, then stop and compare it to the other side. By doing that I could really tell what was released and what was tensed or locked up, and it gave me an overall greater awareness of my body. (G.I.C.)

Another characteristic of Glenna’s verbal communication was that she explained the same tasks in multiple ways. She usually started with a broad description of the spatial configuration of the tasks, then clarified what underlying mechanics had to be activated to achieve the external appearance
of the movement. For example, she first introduced the passé by saying: "Bring your foot to your knee." Then she said: "Find the trochanter and the sitz bones and the distance between the two. Rotate and do a passé. Feel the trochanters move down to the sitz bones" (G.O.5.2.2). In this first explanation, only the external appearance of the movement is provided, then the anatomical action is emphasized. She went on to add the description of the muscular action: "You release the gluteus in order to allow the tail bone to release. The bone is going down and the thigh is rotating. Once the rotation started it must continue as a big spiral as you are taking your leg up. You may feel a stretch in your inside leg muscles" (G.O.5.2.2). Finally, she continued explaining: "To free the hip socket is very important in being able to lift the legs. That is the actual goal of what we are looking for" (G.O.2.3.4). Not only were Glenna's explanations clear about "what to do," the spatial configuration, and the "how to do," the mechanics of the movement, but also about the goal of the exercise, the "why we do." Occasionally, Glenna did not describe the spatial configuration of the movements. In the next quote, the movement was simple. Glenna just clarified the rhythm by using onomatopoeias. She probably thought that her visual demonstration was sufficient and preferred to emphasize the mechanical details of the movement:

This is a little skip and you will do this little funny movement with your arm. So you will do "hoop de de, hoop de de, hoop de de." This is a "hoop de de" just in case you did not know (laugh). Again this is a rib driven movement. It is the ribs and the shoulder blade that will help to move the arms through space. Remember what we talked about: the movement for those arms will come a little more from the forward parts of the shoulder blade, so really get in contact with that place in your body. When you make this movement you can really feel that there is motion there. It takes it out right from the humeral joint and allows the scapula to move freely. (G.O.3.5.5)
Glenna's verbal instructions were very sophisticated. Of prime importance to her was to clarify the "how" to do and "why" to do a movement. In a similar way, Gomez and Carrière (1979) presented the idea that it is important to discriminate the figurative schemes from the operative schemes necessary for the proper execution of any dance movement:

The movement forms that define the given technique (e.g., the characteristic suspension of Limon's technique, the hips-shoulder movements in jazz, et cetera) constitute figurative motor schemes which the learner readily identifies and wishes to reproduce. However, as all dance teachers know, reproduction of these movement forms or figurative motor schemes does not necessarily assure that the body movement principles are adequately put into effect. This is so because operative motor schemes or the ways to properly execute movement forms are often not immediately apparent perceptually. This distinction between figurative and operative motor schemes of a dance technique is very important in teaching. The teacher has to distinguish between the reproduction of body forms specific to the technique and the execution of body movement principles that govern those forms. . . . The focus on the operative motor schemes emphasizes the identification of appropriate sources of kinesthetic feedback rather than just the achievement of the external form of the movement. (p.8)

Glenna's teaching valued operative motor schemes more than the figurative schemes. She often explicitly mentioned it by expressions such as: "I don't care if it's your right or left leg, or if the leg is high. What I want is you initiate with. . . ."

(G.O.3.3.6). In Glenna's task analysis, the body topography in the space, e.g., the figurative scheme is less important than the proper initiation and sequencing of the movement. Being able to describe the operative schemes in addition to the figurative
schemes is an evidence of Glenna's pedagogical content knowledge. Indeed, pedagogical content knowledge implies, as Shulman (1986b) stated, that a teacher is "able to go beyond the knowledge of a subject matter per se to the dimension of subject matter knowledge for teaching." And he continued: "The teacher need not only understand that something is so; the teacher must further understand why it is so, on what grounds its warrant can be asserted. . . ." (p. 9). Glenna showed a depth of content knowledge, but also shared it with the students. That is important as pointed out by Hayes (1980):

Too often dance lessons are formulated with little notion of increasing a student's conceptual understanding of dance. He is directed in a series of unrelated movements that may be quite pleasurable in themselves, but when the lesson is over the student has not really learned anything about dance that can be applied to future situations. (p. 74)

Glenna's detailed anatomical explanations had the advantage of attending to the operative schemes. However, such technical anatomical descriptions could have been confusing for the students. Glenna sometimes used technical anatomical terms before having introduced the terms to the students and without verifying that students understood her sophisticated language. This may have contributed to building a threatening intellectual climate. For example, in the second lesson, she said: "Can you feel where your trochanter is on the side of the pelvis? Most dancers, at his point, know pretty much where their trochanter is" (G.O.1.2.8). Even if the students did not understand all the technical terms, there was no evidence in the observational data that the use of anatomical language was stressful for the students,
perhaps because Glenna reexplained the same tasks in a multitude of ways, emphasizing the "what," the "how," the "why," giving a broad overall description, then breaking it down into the contribution of different body parts, etc. Reexplaining tasks probably contributed to a safe intellectual climate, at least it helped the Indian, SouthAmerican, Japanese, and Portuguese students whose primary languages were not English.

Glenna typically provided detailed explanations of the instructional tasks. Occasionally she adopted what I will refer to as metaphorical language. A metaphor is defined as a figure of speech in which a term or phrase is applied to something to which it is not literally applicable. Metaphor will refer here to Glenna's specific use of anatomical language—that is, when she gave to body parts functions that were not literal. For example, after having presented in detail the function of the iliopsoas as a lever for the legs, one might have expected that she would describe the movement of raising and lowering the leg in a supine hook position as an action of the iliopsoas. Glenna did not, however, present the instructional task in this sound biomechanical manner but rather in a metaphorical manner. She asked the students to locate their sitz bones and said: "Think that you lift the legs from your sitz bones." Then she asked them "to lift the leg with the foot" (G.O.1.4.5). Other such metaphorical anatomical language included "the sternum and the pubic bones bring the leg to the chest" (G.O.3.5.8), or "breathe lifts the arm through the shoulder joint . . . breath in the shoulder joint, that can lift the arms" (G.O.3.1.2). Anatomically, these verbal instructions are not right. The sitz bones cannot lift the legs, nor can the sternum or the pubic bones. We breathe in our lungs, not in the shoulder joint, though we can feel at the
shoulder joint a repercussion of the breathing. The next quote provides an explanation for why Glennia used metaphorical language. The quote is about the specific metaphor "the sitz bones move away from each other" (G.O.3.5.8).

Let's put it this way. The sacroiliac joint does have a little bit of play and that's where the movement is coming from. But if I told them to move from the sacroiliac they'd just get tense in their pelvic floor. If I put the locus of movement high up in the sacroiliac joint, first of all they're going to use too much movement of the sacroiliac joint. It's going to make them more tense usually. If I put the movement in the sitz bone then the sacroiliac, the lumbar spine has the ability to have more lateral or frontal play. "The sitz bone moves away from the other sitz bone," well no, it doesn't really. What does happen is that the sacroiliac joint is gapping and closing. But if I told them that, it would make them move their lumbar spine in a way to try to force the movement. (G.I.4)

Glenna thus used metaphorical anatomical description to evoke a specific muscular coordination response from the students. When asked if it was important that the students knew that the initiations she sometimes described were metaphorical and not mechanically right, she answered:

No. Because what I'm looking for is being able to get a real freedom of movement in the hip joint, if it means that I have to change the initiation of the movement to lower their base of support in terms of where their center of gravity is then I'll use that image. A lot of times what we do in dance is try to raise our center of gravity in order to make our legs free but in trying to do that we tense up everything. That's a very common problem that happens in dancing in trying to lift the torso off the legs. If I want to free up their legs a lot of times I want to lower the center of gravity. Out of that center of gravity they can really connect with their legs and then free them. So what I do is change the locus of initiation. Let's move the sitz bone. Let's move the knee. Let's move from the foot. Whatever it would take. A lot of times what I'm telling somebody is not absolutely true physiologically. If you're going to be a therapist you must know joint physiology because you need to know that a person's joint isn't moving. But to dance you may not need that exact information. In fact it may inhibit you or hurt you or confuse you. (G.I.4)

Glenna's use of metaphorical initiation of movement illustrates well what Shulman (1987) referred to as transformation. The transition from content knowledge to pedagogical content
knowledge requires teachers to transform their content knowledge. This transformation occurs as they critically reflect on the content knowledge and find multiple ways to represent the information as metaphors, analogies, examples, demonstrations, or tasks compelling to a particular group of students. Glenna no doubt understood what she taught. Her comprehension of content knowledge was the starting point that allowed her to transform it in forms that she perceived better suited the student learning. "Breathing into the shoulder joint to lift the arms" or "lifting the leg with the sitz bones" are ways of representing the knowledge so that it fits the characteristics of the students. The process of transformation, however, seemed to present a dilemma. On one hand, Glenna believed that knowing proper mechanics was of prime importance in the development of effective moving. On the other hand, that knowledge in certain cases was deliberately misrepresented. Several interpretations are possible here. The dilemma was not felt by Glenna, who knew she was tailoring the material for a specific teaching purpose. However, the students sometimes felt confused when she used metaphorical anatomical explanations. That was revealed in the following comment of a student:

I felt confused with some of the work we did with the knee joints and trying to acquire a sense of space and air circulating through this space. (G.I.C)

Glenna's metaphors were always related to some scientific rationale. Using metaphor is frequent in dance teaching
(Hanrahan & Salmela, 1990; Smith, 1990; Minton, 1990), but my guess is that often dance teachers don't have the knowledge base to support metaphors. Knowing to what extent dance teachers have the knowledge base to support the physical and anatomical metaphors they use is a possible avenue for research.

In addition to metaphorical language, Glennia used analogical language; that is, she used images to establish relationships between two different elements on the basis of some similarities. Examples of analogical language included "swing the rib cage as a bell" (G.O. 3.1.3), "rocking the back of your boat" (G3.5.6), "... like seeing a water fall of muscles" (G.O.1.2.2). As with metaphorical language, the images communicated a specific quality of movement. However, it was clear for the students that the analogical language resulted in a transfer of meaning through procedures of imagination, which was not the case for the metaphorical language. The next quote reveals that Glennia was scrupulous in choosing images that conveyed a sense of movement:

Some people are very poetic and like to draw from all kinds of images in nature. There is no flower in your body. I find the anatomy is what's really in there. The images that I have are more related to actual experience of movement than to an external visual image. I'm not that visual in my use of imagery. I'm much more kinesthetic. And so that's probably the reason the imagery takes the flavor that it does. ... I always knew that the imagery to be effective had to definitely move as the base line. ... So I usually use some term that is indicating that the image is moving within their bodies. (G.1.3)

The efficiency of such analogical language as a facilitator in dance movement skills has been recently documented in the dance literature (Hanrahan & Salmela, 1990). Knowing if Glennia's analogical language was an effective verbal
communication goes beyond the scope of this research. The point to be made is that both forms of verbal communication, metaphorical and analogical, are evidence of Glenna's pedagogical content knowledge since they reflect Glenna's restructuring her content to make it pedagogically effective.

Another characteristic of Glenna's verbal communication is that she rarely used dance terms. She preferred to describe the dance movements or dance positions. For example, rather than using the dance term "triplet," she said "down, up, up." (G.O.3.1.3). Asked why she did so, she answered:

I try to avoid that sort of thing because familiar words convey images of movement to people very strongly. If I say pas de cheval you know what's going to happen as a habitual response in your own body. Whereas if I just say move your foot this way, it's different. I don't say first position. I just say put your feet together. I'm more subliminally aware of that than I am consciously aware of it. That's why a lot of times people would not consider my thing technique because in fact they might think of it almost as sloppy because I'm not looking for students to give me what they give in every other class about those things. . . . It's not about steps. I've got to put some locomotor steps to it but I don't want them to have the same habitual associations. (G.I.5)

A final case in which the specific vocabulary used is important for Glenna is reflected in expressions such as, "It is less about the head, it is more about the ribs." (G.O.3.1.11). Asked to comment, she explained:

If they're too much in one direction then they're going to say, "oh that's wrong." And then their immediate reaction is going to try to do absolutely the opposite, and they're going to go too far. In other words, if certain muscle groups are pulling the body into a particular posture that if you call someone's attention to it they just immediately strongly contract the opposite side in order to correct it. It's like saying, 'oh my shoulders seem elevated? That means I have to pull them down. Oh my chin is out? That means I have to tuck it in. Oh my pelvis is too far back? That means I have to tuck it under.' It's immediately contracting the opposite muscle group in order to try to correct the problem rather than releasing the muscles that are pulling the body parts out of alignment, and in a sense then you've lost your three dimensionality. You've also lost your mobility... Because now you're engaged in doing
this whole other activity that has not corrected the problem. It's just
more muscular activity that's countering. So what I try to do instead of
saying 'oh no, not like this', I say 'let's try this way' and work with
another option, and see if we can experience something new. (G.1.3)

Once again Glenna's specific use of verbal communication to
transform content knowledge into representations that make the
content comprehensible to learners is evidence of her
pedagogical content knowledge.

Tactile communication. A second way to communicate instructional
tasks was the use of touch. In a typical class, Glenna often went from one
student to another to give them tactile information. For example, in order to
help them release excessive muscle tension in their quadriceps, she gently
put her hands, for about 30 seconds, on the thigh of each student lying on
the floor. Her touch was always gentle because she believed that if one
exerts minimum force, one is able to feel even the more subtle change in the
person one is touching. Such tactile information was sometimes
accompanied by verbal instructions, sometimes not. Glenna said in
interview that she would have liked to give more individual hands-on to
each individual in the class. Unfortunately, her fatigue during the Festival
prevented her from giving as much tactile feedback as she would have liked:

I wish I had been able to have more hands-on with each one
individually. I've done less of that this time than I've done the previous
years. I know I used to run around like a maniac and try to touch
everybody. Now, I want them to get it much more through movements
and use their visualizations and work with partners so that their
partner can replace me. I also selfishly need time for myself. I've been
under a lot of stress so I need to pay attention to me or I'm not going to
be able to teach. I needed to pull back some and not run around and
touch people. (G.1.4)

Hence, the hands-on work with partners was partially a pedagogical strategy
to substitute for her unavailability to provide it herself. Unfortunately, the
students were not as skillful as Glenna at tactile communication. Glenna recognized that the students "sort of touch the other person like a piece of dead snake." Because of time constraints, however, she did not teach them how to "receive and sense through hands" (G.I.4). That did not prevent her from finding the partner work very effective:

The hands-on is great because first of all with hands-on, even though these people aren't really skilled in using hands-on, it's a very big piece of feedback. That tells them several things. One is here is where we're focusing. You don't have to use your own muscles so much. With a little bit of assistance they can let go of the excess muscle work. Plus it really gives just sort of clarity and definition to their own structure. It forces them to really connect with something outside of themselves that is going to make them move a little differently. They're not just doing what their body always habitually does. They have to dialog with someone outside. I'm finding that partnering is extremely effective in this particular class. They really learn much better. (G.I.4)

Though the students did not learn the general skills of hands-on, they nevertheless received clear instructions to execute the given hands-on tasks. Glenna usually gave specific instructions to the person doing the hands-on as well as to the person being manipulated. Sometimes, however, the instructions were more open, such as "Watch your partner. She may need a little bit of feedback here and there. . . . There is always something that needs a little bit of assistance" (G.O.5.2.3). During the hands-on tasks, Glenna had a partner and described what she was doing so that the students could do the same thing with their partners. Then the students exchanged roles, the person receiving became the person providing tactile information. Glenna sometimes stayed as the person providing tactile information or, like the rest of the group, exchanged roles. In both cases, she repeated the instructions exactly. She did not assume that because she gave the instructions once, the persons who had been manipulated would remember what to do when their turn would come to
provide the hands-on. The receiver of the hands-on could then attend fully to the task and not worry about what they would have to do when their turn would come to provide the hands-on.

Visual communication. Glenna's visual communications were different depending upon the category of task presented. In the first part of the class, Glenna usually introduced tasks with a brief demonstration and performed the first repetitions of the exercise with the students. Then she observed the execution of the students for a short time before again performing the task with the students and linking the present task with the next one. In other words, Glenna mainly guided the tasks while participating. In the first part of the class, the tasks were often performed in a supine position. Consequently, the students could not rely on Glenna's visual demonstration. Asked to comment about the fact that doing exercises prevented her from observing students' motor answers and giving feedback, she answered:

It's a problem. What I'm trying to do more is do a few of these movements myself and then begin to look at the students because having sensed and experienced the movement you can better see that some of them are not doing what I'm asking them to do. (G.1.4)

Glenna adopted a kind of "follow the leader" style not because of any verbal deficiency or difficulty in analyzing learner responses to provide feedback, but rather because participating reflected her teaching values. Glenna performed the exercises with the students not so much to serve as a model to be copied, but rather to benefit herself from the actual doing of the tasks. She said that she needed the class for herself, and that doing the exercises put her in contact with her own kinesthetic sensations, which helped her to provide accurate sensory descriptions of the movements:
My natural desire would be to just start with sequences, move, let them follow, and let them begin to get that into their own body, and not have to break the train of the movement. Just do and follow. [Not] like now we do this, now we'll have to go do this, now let's put this and this together. I will do that just because I see people don't follow. . . . It takes a certain maturity to not have to look at the teacher or others every five minutes. To really sense that you're doing a certain thing and to let themselves improvise along with you. That is the way I would love to have this work be taught but I can see that I am under certain constraints with the level of the students I'm working with and that I can't do that. But I don't feel that I'm compromising myself. It's just that that would be my natural desire. To just have the flow of the senses, organize movement without having to see and copy. To just be able to go with that. That's sort of what I have in mind as ideal but nothing is ideal, so you just work to expand what you have. (G.1.3)

In the locomotor part of the class, Glenna showed a different pattern. She demonstrated the moving tasks a few times while explaining the movement. During most of the time devoted to the practice of the integrative tasks, she stood on the side of the room, observing, giving verbal cues and accompanying with her hands, clapping, and snapping her fingers.

Summary

This part of the chapter described findings regarding how the content was manifested through learning tasks. It has been shown that Glenna used a variety of instructional tasks and relied on different forms of communication to transform her content knowledge into representations of that content knowledge for teaching. Several researchers recently explored the theoretical and practical dimensions of instructional representations. McDiarmid, Ball, and Anderson (1989) claimed that "good instructional representations (a) correctly and appropriately represent the substance and nature of the subject being taught, (b) are comprehensible to the particular
pupils one is teaching, (c) contribute helpfully to learning, and (d) are reasonable and appropriate in the context" (p. 197). As they pointed out, these standards are not easy to apply. Subject matter experts disagree among themselves about elements of their discipline. Glennas often addressed teachers' misconceptions raised by the student questions. Students, for example, inquired about "lifting the legs from the abdominal muscles and not from the deep psoas muscle" (G.O.1.4.5) or "back bending at the twelwe and sixth thoracic vertebra" (G.O.3.2.4). To Glennas, misconceptions often resulted from teachers' definition of ideal movement on the basis of the aesthetic of a given style rather than its biomechanical function:

It's just that I would hope that my perceptions of dance movement are a little more grounded anatomically. Other teachers are talking about the space, timing, phrase, or dynamic of movement but they're not talking about the body, really enhancing one's sense of one's self while one is moving. (G.1.3)

Actually, on this issue of misconception or inappropriate instructional representations, the data revealed that Glennas, on the one hand, denounced inappropriate instructional representations, and on the other hand, developed and used them in class. Paradoxically, Glennas used inappropriate instructional representations specifically in order to represent content knowledge in forms that she thought would better fit the students' understanding:

If what I'm looking for is being able to get a real freedom of movement in the hip socket, if it means that I have to change the initiation of the movement. I do. A lot of times what I'm telling somebody it's not absolute physiological proof. (G.1.3)

It is important to note that I refer to Glennas's metaphorical language as inappropriate instructional representation based on McDiarmid, Ball, and Anderson's definition. That, however, does not discredit the overall
effectiveness of Glenna's metaphorical language. As Wilson (1988) pointed out, instructional representations do not exist in isolation. Teachers meet the demand of the class with a constellation of tasks, examples, metaphor, and demonstrations. Representations must be examined within the large context of instruction, goals, content, setting, and students. Wilson (1988) claimed that "representations should not be judged in isolation, for they are defined, to some extent, by the instructional context, including the other instructional representations that a teacher generates and implements for a unit of instruction" (p. 263). Thus to discredit a particular instructional representation on the basis of the subject matter alone can be misleading. What is important to conclude is that Glenna possessed a repertoire of complex instruction representations. She had a clear sense of what counted as a more or less valid representation, hence reflected a high level of pedagogical content knowledge. To determine whether the perspective from which she assessed her instructional representations was right or wrong is beyond the scope of this research. The point to be made is that Glenna was acutely aware of the relationship between content and its delivery for teaching. That makes me wonder about the pedagogical content knowledge of other dance teachers who have a more typical background than Glenna. I indicated in the first part of this chapter that the view prevails in the dance community that professional dancers, by the very nature of their skills, are the more respected teachers. I also showed that Glenna did not follow this standard profile. She does not have a background of professional dancer. That leads me to question what relationship between content and pedagogy would reveal typical dance teachers. What is the pedagogical content knowledge of "content specialists"
as Shulman (1987) calls them, and, more particularly, what are their instructional representations is a question for further research.

**What Is the Pattern of Tasks within and between Lessons?**

After having developed and selected various instructional tasks, teachers must organize them in a coherent manner to present them in class. In the next section, the question "what are Glenna's teaching practices" will therefore be analyzed from the angle of the task patterns within and between lessons.

**Patterns of Tasks within a Lesson**

A change of tasks was identified either by a change of curricular knowledge (working on a body part then working to another one) or a change in the instructional strategy (for example, passing from a visualization task to a shaping task). For analysis purposes, the instructional tasks within a class were divided into four clusters inductively derived from the data and corresponding to the sequential parts of the developing lesson: the informative, investigative, integrative, and conclusive parts of the class. Each part typically lasted respectively an average of 6, 66, 25, and 3 percent of the class time.

**Informative part.** All classes began by Glenna's informing the students about the themes of the class, which was usually followed by a locating task. Here is a typical opening of a class:
What I would like to do is to locate and clarify a number of muscles and concepts about the abdominal cavity. I would like to look at several persons' torsos and begin to analyze in terms of abdominal support. Let's look at the skeleton. In this area there's no skeleton. One reason we are so concerned about having abdominal support is because we are not like turtles. We don't have a skeleton here to support this area of the body. When I think of abdominal, I'm looking at this whole part of your body as a cylinder. There are muscles all over contributing to your support. Often when we work on abdominals, we tend to work in one little isolated set of muscles. I would like that we work in an isolated way but also be able to find a more global pattern of support through spinal movement. \(G.4.1.1\)

**Investigative part.** The investigative part of the lesson included scanning, analyzing, visualization, and hands-on tasks, as well as some moving tasks drawn mainly from the Ideokinesis, Alexander technique, and Feldenkrais body therapies. Appendix J includes the description in Labanotation of a moving task performed in the investigative part of the class. The task consists of a back extension in a prone position. The following presents a verbatim record of a task performed in a supine position:

We will take a little curling into one side. We will fold our body to the right by allowing the thigh to rotate internally and soften the belly against the spine. So there'll be a carving and curling in. Allow the top thigh and the bottom thigh to turn in in your mind's eye. Lengthening out by rotating the top leg out, continuing the rotation and lengthening from that folding position. As we fold to the left, the right leg will fold in, belly will soften so that everything will soften and fold into a flexion pattern into the left side. Right from the toes and trochanter you will lengthen out into external rotation and the whole body will continue to externally rotate and open onto width. When you rotate the leg to come in and start folding, you don't let your chest behind in extension but let that folding soften the belly, soften the rib cage and bring everything in a flexion pattern. Let's just work on that little place. It's tricky.... There is a sense of simultaneous lengthening of the leg and rotating of the leg that has to take place. I am not looking for a wide second. I know we all have the range. This is about sequencing through the body. Play just a moment with this rotation and spiral through the body....It is less about being a gesture of the leg. It is about connection. \(G.0.5.3.4\)
In the investigative part of the class, as the title of the class *Technique Lab/Performance Improvement* suggests, students were involved like any student would be in a "laboratory" setting. The investigative part of the class was not an open exploration in the sense that all avenues of investigation were not equally valued. On the contrary, as in any lab, the students had to work on a specific element and try to control it in a certain way.

Most of the tasks of the investigative part of the lesson were performed on the floor. Glenna had many reasons for this procedure:

The floor does several things. It allows you to have the ability to give your weight into gravity. You don't have to be worried about holding yourself up against gravity and then having to sense weight. One of the major things that I look for in my work is trying to distinguish between weight and tension. When you're working upright in gravity it's very hard to distinguish those two things. People usually only feel their own habitual tension patterns. Another thing is that when you're on the floor, you get the tactile sensation of the floor against your whole body. If you can feel a medium against your whole body it allows you to give up effort. I find it very difficult for dancers to capture that sense of weight that they've gained from the floor to really bring it into an upright position. Being on the floor is also important for having a sense of being "grounded," to focus on one body area very acutely without having to worry about handling the rest of your body. It helps you to focus very fully on one place. *(G.I.6)*

Occasionally the investigative tasks were performed on a chair. As mentioned in an earlier section, the first time Glenna used chairs was totally unplanned. The unexpected comment of a student, the fatigue of the group, and the numerous chairs available in the room were all factors that led her to adopt a new teaching strategy that she kept using throughout the Festival. Indeed, Glenna found that the chairs were an effective way to maintain group work and concentration while tired:

I am afraid to keep them on the floor too long. If I take them from the floor straight to standing they are nowhere which is why I really like
the sitting position. It's an intermediary place for gravity between the floor and standing. (G.1.6)

**Integrative part.** The integrative part of the class focused on basic movements within traditional modern dance vocabulary, such as triplets, swings, battement, attitude, performed travelling across the floor. Appendix J includes an example of a locomotor task performed in the integrative part of the class. The task emphasizes movement of the arms when walking. The following is an extract of Glenna's verbal instructions when demonstrating a "battement, step, step" in turn out:

Swing and rotate. Now your legs have to come off the ground and still have the same freedom at the hip joint and pelvis as you had before. What I am looking for here is that as you step and swing the leg, you really should concentrate on the standing leg. It is that leg that is going to make you go further in space, not this gesturing leg. Your pelvis is not back there trying to catch up over your leg. Find your own turn out. Remember what we did yesterday. (G.Ö.5.3.10)

Though the specific dance steps (relevé, piqué, battement, etc.) remained similar from class to class, Glenna did not work on the step per se but on the integration of a concept previously explored. In the above example, the battement is a pretext to apply the work done on the theme "freedom into the hip socket." What defines the integrative part of the class was the fact that tasks within it had been preceded by other tasks in which a specific element had been explored and clarified. The integrative part of the class offered the opportunity to apply the elements in a more complex context though the tasks of the integrative part of the class were not more complex motorially, nor in terms of coordination or memorization. They were more complex in that they were performed in a standing position, with music, and in unison, which might be considered more demanding because it requires balance, adjustment to other bodies in space, and respect of a collective rhythm. This was not the
case for the investigative part. Occasionally, integrative tasks did not require locomotor steps but consisted of dance movements performed in place. More specifically, one class culminated with an exercise of développé, and another class culminated with an exercise of passé. Even in these two cases, the goal was to apply an element worked on earlier in the lesson, e.g., the relationship abdominals/psoas for the développé, and the relationship rotation/flexion for the passé. A few classes did not have an integrative part, either standing or moving across the floor. That was the case of the special classes, that will be described in the following section, and also of three classes which used only analytical and hands-on tasks.

Traditional dance classes typically finish by complex combinations that include many steps introduced throughout the class (Lockhart & Pease, 1982; Sherbon, 1990). As expressed by the subject of my pilot study (Fortin, 1990), the teachers "plan the class backward" in the sense that the final combinations are broken into different sequences, which become the instructional tasks of the class. The integrative tasks in Glenna's class, however, were not combinations of steps presented throughout the class, embodying a particular aesthetic. The goal of the integrative part of the class was not the expression of any emotional or aesthetic form, but the embodiment of functional anatomy principles that had been explored earlier in the lesson. Glenna started the class with a theme that she explored from different angles and at the end of the class she applied the theme to a few dance steps to see how
the students integrated the concept under study. The last part of
the class did not focus on expressing feelings or working on
space, time, or energy but integrated a body element such as the
relation of the leg/pelvis, the turn out and turn while
performing a lunge.

Conclusive part. The conclusive part of the lesson was a cool down
consisting of several tasks performed on the floor or standing up to bring the
body back to neutral. Glenna reported that she did not plan this part of the
class but decided on the spot what muscles had been worked and improvised
from that (G.I.4).

Pattern of Tasks between Lessons

In traditional dance classes, a number of instructional tasks are
repeated from one class to another. In Glenna's class, however, most of the
tasks constantly changed daily since each day focused on a different
subtheme. There were a few tasks within the investigative part of the class
that were repeated for a week. A few tasks within the investigative part were
also repeated throughout the entire six week Festival. Finally, a refining
subtask appeared throughout the entire Festival. In the next paragraphs,
these recurrent tasks will be examined. Then I will address the special classes
that came weekly, breaking the regular pattern of the class, based on
anatomical themes.

Recurrent tasks. Each week there were one or two tasks repeated from
one class to another one. I call these recurrent tasks, even though they varied
slightly each day. The reason I call them recurrent is that the spatial
configuration, what Gomez and Carrière (1979) refer to as figurative scheme, was the same. In other words, for an outside observer, the appearance of these tasks was the same. However, an examination of verbal instructions reveals that they were repeated with a different initiation corresponding to the daily subtheme. For example, during the first week the task "rocking the pelvis" was repeated every day, not for the sake of repeating the same task, but as a means of applying the new subtheme for the day. Rocking the pelvis was executed with the objective of "bringing the whole body into movement" (G.P.1.1), "finding femur into pelvis" (G.P.1.2), and "experiencing a typical psoas movement" (G.O.1.3). Consider the two following ways Glenna described the same movement "rocking the pelvis" from one class to another:

Use the feet this time to rock and release the feet. Let the pelvis slowly come down. The pelvis does not have to come very far off the ground at all. See what it is to press both feet to move the pelvis. Let that energy flow up to spine and see for yourself at what point does it stop. Is there a place I cannot visualize? Do I work really hard at my thigh or can I rely on my feet to do this action? So that the feet become a lever for the lower leg bone the tibia, which becomes a lever for the femoral bones, which lever right into the pelvis and the spine. (G.O.1.2.3)

Try this typical psoas movement in your own time. Pelvis moving towards legs letting the whole interior bowl coming towards the legs. Letting the pelvis swing in the opposite direction to flatten the lumbar spine and soften and put the psoas on the slack. And let breath in during the whole sequence, so the pelvis comes forwards and connects with the legs, you can see that the lumbar spine comes closer to the pelvis as well. So that everything that we began to talk about sending the energy through the spine, up into the shoulders, can really also happen by way of the iliopsoas; you can let that psoas travel right back up to the 12th thoracic vertebra. (G.O.1.4.4)

Only one task came back systematically each lesson throughout the entire Festival. The visualization "drop the femur into the hip socket" was introduced during the second class of the Festival as an investigative task. The anatomical details of the visualization were presented thoroughly. Later in that lesson, as
well as in all following lessons, the brief cue "drop the femur into the hip socket" interspersed all tasks whether shaping, scanning, or moving tasks. When asked in interview to comment on the importance of it, Glenna answered:

I think it's a key. I could probably use any other thing and still make it a key. But modern dancers focus in their pelvis more than in any other place. The area between their lumbar spine and their thigh is where I would say the majority of their attention is the majority of the time. That's also where you see the injuries in modern dance, much more than in any other place. Plus the more beginning students really need to have a sense of weight and the most weighted area is going to be the pelvis. If I had started with the dance educators I could have gone into head and neck but the beginning students I could see that they needed that grounding in the pelvis. (G.I.4)

The special classes. Once a week, the general pattern of informative, investigative, integrative, and conclusive parts of the class based on anatomical themes was broken to offer a special class—"ball class," "theraband class," or "coaching class," to use Glenn's own words. The special classes were the occasion to focus on releasing, strengthening, or analytical work respectively. Each one will be described to illustrate the extent to which they reflected the central organizing principles of Glenn's teaching.

Two ball classes were presented during the Festival. Both started with an informative task to introduce the goal of the ball class: "to learn to let go of the excess muscle tension that contributes to poor alignment and movement" (G.D.P.B.). The classes continued with a scanning task to assess the general state of one's body. Then the students in a supine position were asked to put a tennis ball under different body parts. The tasks for each body part consisted of (a) breathing in the area where the ball was to give the weight into the ball, (b) gentle roll and little movements over the ball, (c) few movements of
greater range to massage deeper the muscle or to put more weight at slightly
different places, (d) removing the ball and mentally comparing the muscle
tone of the body areas that just received the ball with the other side of the
body that had not yet received the ball, and (e) movements to stretch the body
part just released. The ball class did not include an integrative part, that is, a
moment to apply the work into dance vocabulary. While focusing on releasing
work, the two central organizing principles of sensing kinesthetically and
whole body connectedness were present in the ball classes. As usual, Glenna
emphasized the sensory aspects of the exercises, stating clearly what kind of
sensation the students had to look for: "The shoulder blade becomes floating
inside the muscle on that side. Begin to have an impression of floating. The
shoulder blade slouches in the muscles, slouching back and forth. Just feel
that bone as a free floating member and the whole body resonate this motion
(G.O.1.5.5). As usual, she also related body parts: "Release your toes and fingers
so that the extremities are very soft while the center is being given some
release" (G.O.1.5.9).

The "theraband" classes were similar to the ball classes and will be
described briefly. Theraband classes occurred twice during the Festival and
used a concrete tool, an elastic therapeutic band of six inches by 90 inches, for
performing individual exercises, mainly on the floor. As written on the
advertisement sheet, the goal of the theraband classes was "to focus in
strengthening the different muscle groups to support our freedom of
movement" (G.D.A.). Like the ball classes, the theraband classes did not have
an integrative part. Throughout the classes, Glenna emphasized in many ways
the importance of sensing kinesthetically and establishing connectedness
among body parts: "Get a sense of using the abdominals to support you in that position. Just take your leg into extension. Gently extend. I really want the center to work" (G.O.1.3.4).

Coaching classes occurred twice during the Festival and became a kind of climax for the six weeks because they offered the occasion to apply all the movement themes previously explored. Glenna did not plan and advertise the coaching class as she did for the ball and theraband classes. One day, seeing that the students were tired, she decided to do coaching: "I sense that you will die at this late hour, so I thought it would be fun to do coaching" (G.O.6.4.12). The coaching classes proved to be a success to the point that Glenna said that in another Festival she would include more coaching classes. Because of the success of the coaching classes, and because they embodied in a particularly clear way Glenna's central organizing principles, a few examples will be provided.

In coaching classes students sat on the floor in a half-circle, to observe Glenna, who gave verbal and tactile information to a student standing up while performing a demi-plié. More specifically, Glenna briefly observed the student performing the demi-pliés, and gave hands-on to different body parts until she found a "key body part" that reacted well carrying along a series of changes in the student's body and technique for executing the plié. Once the "key body part" was found, she reinforced it by asking the student to repeat the plié while she was continuing the "key hands-on." For example, for a student who had at the start a deep plié, Glenna gave hands-on on the lumbar spine, the neck, the shoulder, and the head. When Glenna asked the student how she felt, the student answered that she was still feeling a tension at the
sternum. Glenna then put her hands on the sternum and upper thoracic vertebra. Everybody in the class started laughing since the student who was still doing some pliés now had an incredibly deep plié. Glenna then repeated the hands-on that worked the best, that is, the one on the sternum and upper thoracic, and went on explaining:

We grip where we do not have the support. The reason people grip is because they do not have the support, it is true. So when you are having a problem with your alignment rather than to fix on some places that feel very tense, try to look elsewhere and that usually is a good help. What I am actually getting is her whole thoracic spine comes up slightly, extending slightly, to support her head which happens to be forward. It is a micro movement. It is not a big movement in space. We are not looking for range. We are looking for how things connect in terms of relationship. She gets a micro movement there that is all she needs to get a big change in volume in her sensation and therefore in movement. You see, little by little you find your road. This work gets to the little details so essential. It is certainly not perfect but we are moving in that direction. There is no perfect way to get at this work. I tell you. What is remarkable doing this kind of things is that everybody has a completely different movement organization or a body type and a different place where movement is not taking place. (G.O.6.5.8)

In this quote, Glenna talked explicitly about her two central organizing principles: (a) the students have to attend to their kinesthetic sensations to improve movement, and (b) there is a synergistic relationship between body parts and the whole body. In the coaching class, the students were not physically engaged from the beginning to the end of the class as they were in the other classes. However, the students were cognitively engaged throughout the class because Glenna shared with them her diagnosis of the student's execution of the demi-plié and explained what she was doing to improve the movement of the student:

She is getting more plié by tilting her pelvis. [Glenna touching the back of the student]. We will remind her spine deep. [Then touching the student's hip and saying to her] "Think broad and large hip, wide hip... Keep going. Yes. That's it. Once more. Yes!" Now she is more
available with her whole body. You see if this is not moving it is often because this [spine] is not moving, or this [hip] is not moving. She needed a little bit of assistance at the hip, at the lumbar spine, and at the thoracic spine. This is valid for everybody. There is always a little something that needs help. It sounds so stupid. You find your alignment because you stop doing the thing pulling out of alignment and that's what needs to be identified. It is not something you have to do. It is almost always something you have to undo and then you really find your own structure and your mobility and that is what is sort of miraculous about it. (G.O.6.4.10)

Besides showing how Glenna extracted general learning principles from individual cases, this quote shows that coaching included positive interactions as typically provided by a coach: "Keep going. Yes. That's it. Once more. Yes!". On that matter, when asked to comment about the unusual term "coaching class," she answered:

My husband's family hadn't a clue about the kind of work I do. They sort of know what a physical therapist is and they know what a ballerina is but anything else they don't know. They think a physical therapist is someone who puts on hot packs and a ballerina is somebody who dances to stories in a tutu and that's it. That's the range of their understanding. So then I come along. They're looking at me like what is it that you do? "I'm a coach." I come in and I see somebody's alignment is a little off and I try to make some suggestions about what they might do. The coaches don't do a lot of hands-on work. They're on the sidelines. They're yelling things to people, "Go, go, hey, more power." And I think as a dance coach that in essence I'm sort of doing that but I have to use my hands and I have to use my body and I have to use all of the things that I am. (G.I.6)

**Summary**

This part of the chapter has addressed the pattern of tasks within and between lessons. Most of the classes unfolded with informative, investigative, integrative, and conclusive tasks. The curricular focus for each class varied because of the weekly themes and daily subthemes. From one class to another, a few tasks were repeated within a week. Only one recurrent task, "dropping
the femur into the hip socket," came back through the entire dance Festival. Some integrative tasks, such as battement, piqué, etc., were also repeated throughout the entire Festival. Each week, a special class—a ball, a theraband or a coaching class—broke the daily pattern. Those classes had specific goals and, like the other classes, reflected Glenna's central organizing principles.

Synthesis of the Findings and Discussion

The data suggest that knowing, visualizing, touching, and moving were key elements to understand Glenna's teaching. The different categories of instructional tasks emphasized different sensory modes, and Glenna insisted that to accomplish their purpose the tasks had to be performed with a receptive mode. That often meant instructions such as working at a personal rhythm before adjusting to a collective rhythm, or moving with a small range of movement before exploring a maximal range. These instructional representations, informed by objective anatomical and subjective sensory knowledge, break out of the conventional pattern of teaching dance and offer a promising new avenue. The data also revealed that Glenna relied on specific wording of verbal instructions to transfer her content knowledge into pedagogical content knowledge. In particular, her metaphorical language raises questions about the appropriateness of representations for specific topics. When using what I refer to as metaphorical language, which is inappropriate instructional representations of the content knowledge according to McDiarmid, Ball, and Anderson's (1989) criteria, Glenna actually reveals a deliberate process of transformation of her content knowledge into
knowledge for teaching. Determining the appropriateness of instructional representations is certainly a promising avenue of research, though it goes beyond the scope of this study. Returning to the goal of this part of the chapter, to describe and analyze Glenna's teaching practice, the point to be made is that Glenna relied on a wide repertoire of instructional representations.

According to McDiarmid, Ball, and Anderson (1989), a wide repertoire of instructional representation comes from experience. Over years, teachers develop a repertoire of instructional representation from two sources: Outside sources or representations include curricular materials, formal academic studies, and workshops. Inside sources of representations pertain to those that teachers invent by themselves, fashioned from their own exploration and understanding. Sometimes these representations are original inventions, sometimes modifications of ideas gathered elsewhere. Those two sources of representation fit with the two sources of content knowledge that emerged inductively from the data and that I referred to as continuing education, a search from outside, and a search from inside. Glenna engaged in continuing education not only to expand her content knowledge but also to develop her repertoire of instructional representations. Having a wide repertoire of instructional representations is of prime importance because it provides more options to adapt content knowledge with a particular group of students (Putnam, 1987).

Talking about teaching in terms of instructional representation focuses attention not just on the instructional tasks but specifically on the students and teaching environment. Indeed, the raison d'être of the transformation of
subject matter is to meet the characteristics of the learners and learning situations. Glenna made numerous references to how she would engage differently with different students in different settings. As with Glenna, dance teachers are often free-lance workers involved in many settings. It would be interesting to study what pedagogical content knowledge Glenna would demonstrate in another teaching environment with different students.

In Glenna's teaching, a perplexing issue remains from the dual focus on content knowledge and students, that is her reluctance to open a dialogue with the students within class time. That reluctance I have suggested was partially based on her valuing academic learning time but also on her own emotional fragility. In the "cop-out" vignette presented earlier (see page 129), Glenna said she panicked when a student expressed confusion about the class. This reaction may reflect what Berliner (1988) concluded in his studies on the development of expertise. When comparing experts to novices, Berliner stated that "expert teachers, apparently like other experts, show more emotionality about their successes and failures in their work [than novices]" (p. 19). When asked to describe a teaching experience, novice teachers were generally affectless whereas experts were involved at a deep emotional level. According to Berliner (1988), a different kind of emotionality and sense of responsibility characterized the novices and expert teachers as they evaluated their teaching performances.

Finally, this chapter has illustrated how instructional representation but also pedagogical orientation are related to a teacher's conception of teaching and learning a subject matter. For Glenna, learning dance is a life-long process that individuals pursue for themselves, and typically by
themselves, under the guidance of persons more advanced in their developmental process. Holding that conception, it is not surprising that Glenna allowed room for highly individualized learning. The data showed that, for the investigative part of the class, Glenna mainly guided the instructional tasks while participating herself, which prevented her from closely monitoring the students' execution. This is not to suggest that Glenna had a "whatever you learn is OK" approach. On the contrary, Glenna had clear ideas about what she wanted the students to learn. She often suggested that the teacher must lead the class. However, from the intentional way she directed this part of the class, there is reason to believe that what the students learned was very idiosyncratic, which Glenna valued as suggested by her evaluation approach that was based in simple terms on "their openness to learning."

Chapter Conclusion and Implications

The first part of this chapter provided Glenna's biography and described her teaching environment to provide a context for the data. The second part has provided evidence of Glenna's depth and breadth of knowledge. This last part of the chapter has demonstrated how Glenna used different instructional strategies to represent her knowledge in a way that she perceived enhanced students' learning. Glenna's capacity to generate different instructional representations supports Shulman's (1987) claim that there are powerful relationships between the comprehension that teachers have of their content knowledge and the teaching strategies they use, though
there is absolutely no evidence in the data to substantiate any claim of causal relationships.

A claim, however, that is supported by the data-based observations and interviews is that by any measurable standard in the teaching literature, Glenna proved to be an "effective" teacher--or "wise" teacher is perhaps a more appropriate term in respect to Shulman's conceptual framework, wisdom being not solely derived from her knowledge of pedagogy but also grounded in a broad and deep knowledge of what she teaches. For economy of presentation, I sum up below Glenna's teaching with a list of statements that might look like Glenna's "tricks to be a good" dance teacher. This is not my intent. The thick descriptions provided throughout the chapter proved that a mechanistic approach would fail to reveal Glenna's rich and complex teaching. The following statements should be read keeping in mind the descriptive data from which they derived:

- Glenna planned thoughtfully and thoroughly.
- The classes were similarly structured from beginning to end in a way that made sense pedagogically.
- Tasks related to one another in a logical progression leading to more complex understanding of dance principles and mastery of movement skills simultaneously.
- Despite the planning and structure, Glenna was open to change based on her own state and on what she perceived to be the more salient needs of students on a particular day.
- She showed a capacity to make "on the spot" task changes when necessary and they mostly worked well.
- She adjusted her teaching according to the specific characteristics of her setting, depicting an understanding of the context in which she taught.
- The entire course was structured with themes and subthemes that allowed her to pursue the more central goals of her teaching. The tasks were a means through which the central goals were pursued.
- Gianna utilized a variety of instructional tasks that reflected the two organizing principles of her content knowledge: sensing and whole body connectedness.
- She drew upon her understanding of students' conceptions and misconceptions of the subject matter. She manifested knowledge about what students already knew about a task and what they were likely to find puzzling.
- She possessed a repertoire of complex and metaphorical representations and developed a clear sense of what counted as more or less valid representations based on her knowledge of both the content and the learners.
- She made frequent relationships between the content of the class and the artistic community in general though her focus always stayed on the physical component of dance.
- The climate was safe and emotionally neutral with a businesslike approach, yet generally convivial in nature.
- Student-teacher interactions were limited, yet students clearly had access to her outside class time. While class time was noninvitational, out-of-class time was clearly invitational.
- The management of space, equipment, and time showed foresight and was used to produce optimal time for achieving learning goals.

- Her knowledge of disciplines other than dance allowed her to be critical about her apprenticeship of observation and to shape the class in a nontraditional way particularly in regard to learning with a receptive mode.

The above review of Glenna's teaching would make many researchers claim that Glenna is a "good" teacher. This straightforward conclusion entails however a more complexing conclusion, that is, Glenna is a good teacher of what? What is exactly the nature of what she teaches? She knows she is a pioneer but she herself has difficulties in defining her subject matter within the dance community. I have suggested that Glenna is either creating a new subject matter or pushing the boundaries of what will be a new approach to technical dance teaching. To determine which hypothesis is more correct goes beyond the scope of this research, and will probably find an answer only as the years go on. Historically, indeed, Glenna's teaching is rooted in the body therapies of Ideokinesis, Alexander, and Feldenkrais that have made an impact between the 1930s and 1960s (Mangione, 1989). A first generation of dancers have attended their classes in tandem with dance classes. Glenna belongs to a second generation that makes attempts at integrating dance and body therapies, in addition to dance science in Glenna's particular case. Hopefully, a third generation trained in such a composite will go further.

Glenna's struggle to develop a new approach to teaching dance reflects a desire for changes shared by many educators among the dance community. According to Hanstein (1990), it is indeed time to challenge the status quo of the dance tradition:
The increasing complexity of our society requires us, and the students who will shape the future, to function in tasks that demand imaginative thinking and the ability to suggest alternatives and formulate hypotheses. Education in general, and dance education in particular, should focus on developing the ability to see the connection between actions and their consequences and between means and ends, to take cognitive risks, and to extend thinking beyond the known in order to deal effectively with what might be rather than with what is. (p. 57)
CHAPTER V
FINDINGS CASE TWO

This chapter presents the findings of the second case study. As a reminder, the research questions, which concerned the pedagogical content knowledge of two experienced modern dance teachers, are restated:

1. What does Martha know and believe about the teaching of modern dance?
   - What are the sources of her knowledge and beliefs?
   - What are the central organizing principles of her content knowledge of modern dance teaching?
   - On what bases does she select content for her teaching?

2. What are the teaching practices exhibited by Martha?
   - What is the instructional climate and how is it conveyed?
   - How is the content made manifest through learning tasks?
   - How do the tasks vary within a lesson and among lessons?

As for the previous case, the results for this case are arranged in the following manner. Part One of the chapter will present a biography of Martha and a description of her teaching environment. Part Two will address her knowledge and beliefs about the teaching of modern dance. Finally, Part Three will examine Martha's teaching practices. Each part is divided into sections corresponding to the subquestions outlined above.
Part 1—Who Is Martha and What Is Her Teaching Environment?

The following biographical profile of Martha and the description of the context in which she teaches is intended to serve as a basis for the analysis of the data.

Biography

Martha, a tall and strong woman in her thirties, grew up in Spanish Harlem in New York. Whereas the typical pattern of dance training is to specialize at an early age in a particular style through technical classes, Martha had from the start been exposed to not only technique but also to improvisation and choreography. Following her sister, Martha began to study dancing as an eight-year-old at the 92nd Street Y. She studied there with various teachers, all leaders in their respective areas, until she was 16 years old. For example, she studied Afro-American dance with Rod Rodgers, international folk dance with Fred Burk, and modern dance with Bonnie Bird, who later became influential in the dissemination of Laban's work. From ages 11 to 16, she also belonged to the Performing Workshop of the 92nd Street Y, which was a children's dance company performing the pieces of guest choreographers and children in schools, retirement homes, libraries, and parks. During that time, she also attended Graham classes at the Graham studio and Limón classes at the Clark Center, in addition to studying with Laura Foreman, a teacher who had an eclectic approach to dance composition. That
last experience had a significant influence on Martha. She became Laura's assistant despite her young age:

I remember having the experience that the students in the class were thinking I was quite old. This was because they assumed that since I was in a leadership position that I was older than them, which would have put me like age 22, 24 and I was only 15, 16. So that was kind of strange. It felt like an honor sometimes but confusing at others. (M.I.5)

In brief, during her childhood and teenage years, Martha accumulated a wide array of dance experiences. At a young age she became aware of how rich and unusual her development as a dancer was.

Despite this rich involvement in dance in New York, Martha moved to Massachusetts to pursue a B.A. degree at Hampshire College. She selected this institution because it had an experimental learning system that she valued. Martha did not like the New York public school system, whose grading system was based on memorization and exams were processed through the state. She explained that she performed well in such a grading system but nevertheless felt that it did not encourage the understanding of the concepts under study. For Martha learning occurred when she was able to restate the object of her learning. She said that her learning through verbalization to others had contributed to her interest in teaching:

I think that's when teaching first came. Teaching for me is my way to learn. it's my way of knowing that I've learned it because I can say it back to someone and really be understood. (M.I.5)

Shulman (1986b) addressed the relationship of teaching and knowing. He referred to Aristotle, for whom the greatest indicator of knowledge of a discipline was the ability, not to practice it, but to teach it.
Hampshire College was also attractive to Martha because of its individualized program, which offered her the possibility of combining her interests in dance and the humanities. During the first three years of her undergraduate study, she danced with the college company and attended classes in contact improvisation, Akido, Laban Movement Analysis, and Hawkins and Limón techniques. She started ballet but never really pursued it. "I have different feelings about it," she said. "I think it's ok but on the other hand I miss it sometimes" (M.I.5). In the humanities, Martha immersed herself in socialism and feminism, which took a more and more important place in her life and led her to disengage progressively from dance. By the last year of her program she knew that she did not want to be a performer:

I've found that dance was not interesting to me. It wasn't politically viable. I did not feel that it was really a socially productive activity. I felt like modern dance was basically about me, expressing me, for me and my friends and if anybody understands it, they're lucky. (M.I.5)

As the final project of her B.A. degree in dance education, she nevertheless combined the two interests of her undergraduate study and completed field studies on the movement skills of teenagers in an inner-city performing arts school, who were at risk of being hospitalized for psychiatric disorders.

After her graduation she continued working with the adolescents in a treatment center for teenagers with mental disorders, as well as with children in a day-care center. After one year, however, she felt the need to acquire more movement observational skills. "I really wasn't observing in a clinically diagnostic way back then," she said. "I had some understanding but I wanted a structure with which to really observe [movements]" (M.I.5). She decided to move back to New York to study at the Laban/Bartenieff Institute for
Movement Studies, where she became a Certified Movement Analyst (C.M.A) in 1981. During her year of study at the Laban/Bartenieff Institute, Martha became deeply involved in a women's health clinic. "I wasn't only a health care worker but coordinated all the volunteers," she pointed out (M.I.S).

Actually depicting Martha's journey as a linear path is misleading, since she always pursued different projects simultaneously. One project not yet mentioned, which had been important since she began college and which shaped her professional career, was her study at the school for Body-Mind Centering in Amherst, Massachusetts. In 1976 Bonnie Bainbridge Cohen, the director of the The School for Body-Mind Centering, came to Hampshire College to give a workshop and Martha immediately recognized herself in Bonnie's work, which consists of "an educational and therapeutic approach to health through movements" (M.D.B.M.C). During the following summers, Martha studied at The School for Body-Mind Centering. In 1984 she became one of the first students to receive the status of Certified Teacher and Practitioner of Body-Mind Centering.

Though her study at the Laban Institute and at The School for Body-Mind Centering equipped her to be a movement specialist, Martha soon felt the need for a "title and more of a profession" (M.I.S). Indeed, these two private teaching institutions have not yet gained widespread recognition in the conventional society outside of the dance and healing communities and to a certain extent lack credibility in mainstream society. In 1982 Martha decided to enroll at Columbia University in New York to pursue a master's degree in exercise physiology. Her final thesis, Non-pharmaceutical Interventions in the Treatment of Hypertension, proved to be a kind of bridge between her
interest in health and fitness and expressive movement. During that period Martha also studied holistic health. More specifically, for two years she traveled to the Berkshires one weekend per month to complete a program on herbolgy, nutrition, and Swedish massage given by the Center of the Light, proving again her capacity to deal with different projects at the same time. At that time, in addition to the degree in exercise physiology and the program in holistic health, Martha was also a teaching assistant at the Laban Institute and did an internship as a movement specialist with Dr. Richard Kavner, a behavioral optometrist.

From there Martha's professional life consisted mainly of teaching different aspects of Laban/Bartenieff theory and Body-Mind Centering in a variety of settings, including New York University (NY), Connecticut College (CT), Hampshire College (MA), Antioch New England Graduate School (NH), Hope College (MI), and the New School for Social Research (NY). Since 1987 Martha has also taught in a number of dance festivals, including the American Dance Festival (NC), White Mountain Summer Dance Festival (NH), Alverno Dance Festival (WI), and the Bates Festival (MA), site of this case study. Martha has also taught extensively abroad—more specifically in Canada, Germany, the Netherlands, Italy, and Switzerland.

At the time of the study, however, Martha emphasized that personal and professional reasons had motivated her to settle down. She said that she was in "a transition from a traveling teacher to a person with a base" (M.I.5). At a personal level, she mentioned the difficulties of maintaining a relationship when eight months per year is spent on the road. At a professional level, Martha explained:
There is a whole mystique of being a guest teacher that has a lot of ego-building in it, a special center of attention kind of feeling. On the other side, it's difficult because I never get to work with people over time so I have both cautions. One is that I'm dealing with ego too much and the other is that I'm not working in depth right now. So I'm excited to sink in. That's why I started applying to colleges for teaching positions. (M.I.5)

In order to be qualified for a full-time job at a university, Martha was thinking about eventually pursuing a Ph.D. degree, though at the time of the study that was not a priority. Her main long-term project was the development of her own training for health professionals and dance educators. She was planning to start her own training program titled Somatic Movement Therapy, "body-mind theory, sensitive and dynamic hands-on work and movement education" (M.D.A).

In retrospect, Martha noticed that the decade of the 1970s was devoted mainly to dance; during the decade of the 1980s she shifted toward an interest in health; and the decade of the 1990s seems to bring back her initial interests. Indeed, in 1989 Martha returned to dance choreography and performance because the times appeared to her more favorable for the kind of political art she believed in:

As a performer I'm particularly interested in being understood, not like you must know what I mean; but being an effective communicator. That's why for a while I stopped performing because I didn't feel that there was a true exchange with the audience and now I feel there's more potential for that. (M.I.5)

At about the same time, she returned to dance teaching. She rented a space in New York and taught dance classes on a regular basis. One year later, however, fed up with New York City life, she moved back to Massachusetts, where she continued to teach dance occasionally in private studios when not on the road teaching Labananalysis or Body-Mind Centering. Despite her
frequent trips, she also maintained her own private practice as a body therapist. Actually her desire to develop an identity as a dance teacher in addition to being an expert in Body-Mind Centering and Laban Movement Analysis is such that, when asked to teach at the Bates Dance Festival, she made her acceptance conditional on teaching a body therapy class, called Exploring the Moving Mind, and a dance class, called Body-Mind Dancing/Modern 3. Before turning to this latter class, which is the object of this research, I will describe briefly the site of the Bates Dance Festival.

**Teaching Environment**

This section presents the information related to Martha’s teaching environment and has been organized in the following manner: The Bates Dance Festival, the Body-Mind Dancing/Modern 3 class, and the description of the room in which the class was taught.

**The Bates Dance Festival**

The Bates Dance Festival brought together almost 200 students and 14 faculty on the campus of Bates College in Lewiston, Maine. Students who attended the festival were at least 17 years old, with an intermediate level in dance. The program included modern, ballet, and jazz technical classes at intermediate and advanced levels. Modern repertory, composition, African dance, contact improvisation, authentic movement, body therapies, and music classes were also offered. Full-time students took four classes of one hour forty-five minutes per day for the three weeks of the Festival. Upon
completion of the courses, students could apply for academic credit. In addition to daily dance classes, students participated in an array of evening events, including conferences, dance jams with the artists in residence, showing of the students' creative work, and faculty concerts. Besides these formal activities, the daily life of the Festival provided many opportunities for interaction, including the obligation to share meals in the college's dining commons.

**The Body-Mind Dancing/Modern 3 Class**

The class Body-Mind Dancing/Modern 3, "3" referring to the intermediate level, was scheduled from 10:30 to 12:45 every morning from Monday through Friday. The average number of students in the class was 14, with daily attendance varying from nine to 18. Two subgroups of students were distinguishable within the group, the young students in their early twenties and the dance teachers in their late thirties. Though the class was designated as intermediate, the skills of the students varied, which Martha appreciated:

> I really come from a model more of Aikido and the martial arts which is to enjoy the differences. Not to go for a homogeneous level. But in a way it would be nice to have an even greater range. Like if there were some very advanced students in the class. I always love it when a professional dancer comes to my classes to focus on the simplicity of their work. That's such inspiration for the other students. (M.I.3)

Martha explained that if she had had more time, she would have emphasized the different levels to help "them to really come to appreciate each other" (M.I.3). Having a heterogeneous group, however, challenged her:

> I feel like I need to give some special attention to the middle-level people. I think they get more lost, I lose them a little bit so I have to
watch carefully. I really have to make a focused intention to watch them and to find things to say to them. I think that's true for many teachers. (M.I.1)

Though the group was diverse in age and had different level skills, a common characteristic of the students was their intellectual approach:

They're a pretty intellectual group. Most of them are willing to work conceptually with ideas but with a sensitivity to their own feelings as well as to movement structure. They don't even necessarily articulate a question but you can see they're not jumping in on a body level to try it. They're trying to understand it with their heads. Literally their heads come forward versus a bodily enthusiasm. (M.I.3)

Description of the Room

Martha's class took place in a multipurpose building on the university campus in a long rectangular room of approximately 70 by 35 feet. One wall of the room was mostly covered with five mobile mirrors. The opposite wall contained many large windows, which allowed abundant light to enter the room. Another wall had a door window in addition to two long windows that opened to a waiting room so that people walking through the building could stop and watch the class any time. On two sides of the room there were comfortable couches. Finally, there were a grand piano and a number of percussion instruments in one corner. The natural light, the couches, and the piano, combined with a beautiful wood floor, created a warm atmosphere. Meetings and jam dances were presented in this room, which was always cool and airy because of the windows.
At one point in the interview, Martha said, "I'm used to being exposed to different ideas" (M.1.5). That is the key element in understanding Martha's journey. Articulate and outgoing, Martha exuded confidence when talking about the choices she had made to become who she is now, a free-lance teacher with many resources, but mainly well known throughout the United States, Canada, and Europe for her specialized teaching of Laban Movement Analysis and Body-Mind Centering. In the March 1987 issue of *New York Woman* Magazine, Pendola wrote about Martha:

Martha's approach to health has been called "flaky," but the 29-year-old body therapist has a soothing charm and a comforting self-confidence that partly explains why she is one of the most sought-after professionals in her field. (M.D.W.M. p. 22)

Five years later the statement was still appropriate. In the dance field, however, her fame was not as widespread. She is not a typical dancer. Though she made a recent comeback to public performance, on the one hand, she lacks the many years of professional dance technique training and professional performance experiences that usually inform a dance teacher. On the other hand, the marginality of her background allowed her to develop an original technical dance class called Body-Mind Dancing. She has devoted most of the last decade to teaching, which she enjoys deeply.

It is interesting to note that in the dance community dance teaching has considerably less status than performing and choreographing and is seen as offering less gratification (Stinson, Blumfeld-Jones, & Van Dyke, 1988). Even within the
teaching profession a hierarchy is created. This hierarchy is dependent upon how close the ties a teacher has with professional practice. Stinson, Blumfeld-Jones, and Van Dyke (1988) argued that at the top of the hierarchy are the "real teachers," that is, the individuals who have been professional performers or choreographers. At the very top are those who worked with the best companies. The hierarchy functions as a series of levels to which individuals must get admittance not based primarily on the effectiveness of their teaching. At the bottom of the hierarchy, continued these authors, are the teachers who could not make it at a professional level and consequently are relegated to teaching in less prestigious environments.

Where is Martha located on this scale? Her biographical profile revealed that she taught in a variety of prestigious settings. The bottom of the scale is hence to be excluded. The top of the scale is to be excluded as well. Though she performed within the Bates Festival Faculty Concert, her renown as a professional artist is not what motivated the Bates Dance Festival to invite her to teach, nor is it what attracted the students to study with her. In my view, Stinson, Blumfeld-Jones, and Van Dyke's description of different statuses within the dance teaching community needs to be expanded. A new profile of the dance teacher is perhaps emerging within the dance community, one that can be summarized by Shulman's (1986b)
aphorism: "Those who understand teach" (p. 14). Martha was knowledgeable and it is mainly on this basis that she has been invited to teach at the well-known Bates Dance Festival. As the knowledge base for dance teaching is developing, thanks to the recent contribution of dance science and body therapies among other things, a new category of dance teachers is emerging. Those teachers take their credentials not only from the physical and artistic mastery of dancing, but mainly from the understanding of a substantive conceptual content of dancing. As Martha Myers, said, "it is time to teach dance principles rather than dance steps" (personal communication, July 11, 1992). My point here is not to diminish the importance of the professional background of the dance teachers. Teaching is bound to content and in dance the physical involvement, the experiential knowledge, is the primary aspect of content. My point is rather to highlight an important change in the conception of relevant knowledge in dance. This shift encourages varied and experimental approaches to the teaching of dance, which is one of the objectives of the National Association of Schools of Dance as stated in its Information Bulletin (NASD, 1989).
Part 2—What Does Martha Know and Believe about the Teaching of Modern Dance?

In this section, I will first examine the source of Martha's knowledge and beliefs about the teaching of modern dance. Then I will address the central organizing principles of Martha's content knowledge for dance teaching. Finally, I will examine the bases on which she selected the content for her teaching.

What Is the Source of Martha's Knowledge and Beliefs?

The biographical profile has revealed how Martha's schooling was diversified, including different dance styles, different body therapies, martial arts, exercise physiology, and herboiology. In this section I will focus on three main sources of knowledge and beliefs in regard to the specific dance class she taught at the Bates Dance Festival: her study at the school for Body-Mind Centering, her training in Laban Movement Analysis, and her background in dance.

Body-Mind Centering

Martha wrote in an advertisement flyer that her teaching drew from Body-Mind Centering, which is "an experiential study based on anatomical, physiological, psychological and developmental movement principles . . . that leads to an understanding of how the mind is expressed through the body in movement" (M.D.B.M.D). Body-Mind Centering is extensively described in the

The developmental work. Developmental work consists of basic neurodevelopmental movement patterns. It is based on the belief that ontogenetic development (an individual's personal evolution) closely parallels phylogenetic development (evolutionary history of the species). The assumption is that the movement organization of infants is in part genetically programmed, that is, the human being is born with an involuntary movement repertoire aimed at satisfying basic survival needs. Later, an intentional movement repertoire develops depending upon the stimulation available in the environment. The school for Body-Mind Centering distinguishes between the neurological pattern human beings share with prevertebrate and vertebrate organisms. The prevertebrate patterns are cellular breathing, nasal radiation, mouthing, and prespinal movements. The subsequent 12 vertebrate patterns involve the action of pushing, reaching, and pulling from one body part to another in order to move through space. For example, the two homolateral patterns involve the coordination of the upper and lower limbs of each side, whereas the two contralateral patterns establish the diagonal forces connecting opposite upper and lower limbs. In Body-Mind Centering, each prevertebrate pattern underlies each successive vertebrate pattern. Incomplete development of any pattern can lead to movement problems of various sorts. By working systematically on these developmental patterns, it is possible to improve even complex movement performance.
The body’s component system. The second aspect of the work of Body-Mind Centering that strongly influenced Martha’s teaching is the analysis of the body’s physiological systems, which are composed of the skeletal, ligamentous, muscular, organ, fluid-circulatory, nervous, and endocrine systems. One important principle of Body-Mind Centering is that each body system contributes in different ways to qualities of movement and expression. For example, the cerebrospinal fluid in which the brain and the spinal cord float has a continuous rhythm without accent. The quality of movement performed in activity such as Tai Chi is associated with this system. As a second example, the organ system is related to voluminous and smooth quality such as the ones observed in Belly Dancing. People tend to rely particularly on one or another system, which provides the qualitative aspect of their movements. Because each system has "physical and mental attributes," Martha believes that by exploring the body systems new sources of movement expression may be tapped" (M.D.P.1).

Laban Movement Analysis

Martha’s teaching is informed by Laban Movement Analysis or Labananalysis, which is a conceptual framework for the study of movement developed by Rudolph Laban in the first half of the 20th century. Labananalysis can be approached through the complementary study of the Effort elements, Space components, and Bartenieff Fundamentals, which were developed by Irmgard Bartenieff, a Laban student. The three aspects will be described since they are central to Martha’s teaching.
Effort. Laban conceived of the dynamic or Effort qualities of movement in terms of Space, Weight, Time, and Flow. He argued that all movement qualities can be described on a continuum from direct to indirect in space, light or strong in terms of weight, sustained or sudden in time, and free or bound in term of flow. In other words, each Effort element may be situated within the range of two extremes, indulging or fighting, which resulted in the eight qualities of movement just described. By combining the three Effort elements of Space, Weight, and Time, Laban also identified eight basic Effort Actions: float, punch, glide, slash, wring, dab, flick, and press. Each of the basic Effort Actions is a combination of one indulging or fighting factors of Space, Weight, and Time. For example, a flick, as in brushing several insects from a dress, could be a combination of indirect Space, light Weight, and sudden Time. The Effort qualities express the characteristics of the mover and vary for specific intent. For example, when wiping tears from a child’s eyes, the qualitative element toward Weight is lightness, as opposed to a stronger Weight element when spanking a child. Laban has pointed out how individuals have predilections for combinations of Effort elements, which define their movement styles. Thus, pedestrian movements as well as dance movements can always be described in terms of combinations of Effort elements.

Space. Another aspect of Laban analysis is the study of the spatial paths of the movements available to the body. From the center of the body there are many possible directions. Laban organized them in 26 directions resulting from the delineation of the space in three levels, each level divided into right, left, forward, backward, and four oblique directions (Bartenieff & Lewis, 1980).
Laban explored the reaching possibilities of the body in space and organized them into sequences of progressions that he called Space scales. The one-dimensional scale, two-dimensional scale, and three-dimensional scale became known as Space Harmony or Choreutics and serve movement as a musical scale serves music. Laban also combined the space scales with the Effort Actions in a set of prescribed sequences based on the affinities between Space and Effort that he observed in people moving in their daily life. For example, he associated Strong Weight with a downward direction because the quality of movement observed in an action such as smashing an object with a fist is observed most of the time toward a low level with gravity.

**Bartenieff Fundamentals.** The Bartenieff Fundamentals were developed in the 1950s by Irmgard Bartenieff out of her experience as a physical therapist utilizing Laban's concepts of Effort and Space. Bartenieff Fundamentals aimed at effective body patterning using principles of functional anatomy. Bartenieff utilized basic movement patterns related to early reflexes. Though they include innumerable variations, the Bartenieff Fundamentals are nevertheless based on six simple movements performed on the floor in a supine position:

1) Lift the thigh and return it to its original position; 2) Lift the hips off the floor, shift the pelvis forward, and return to original position; 3) Lift the hips off the floor, shift the pelvis to the side and return to original position; 4) Keeping flat on floor, bend one side of the body and then the other side; 5a) With knees flexed, feet on floor, drop the knees to one side and then the other; 5b) Repeat 5a and involve arms so that there is a diagonal pull between dropped knee and its opposite arm; 6a) Extend arm movement of No. 5 so that it circles the mover's body on the floor; 6b) Extend 6a with repetitions that build momentum to bring the mover to sitting position. (Bartenieff & Lewis, 1980, p. 20)
Actually these simple movements progress from lying on the floor to uprightness through crawling, sitting, standing, walking, and increasingly complex spatial paths.

Dance Background

I already described how Martha's dance training encompassed not only a wide range of dance styles but also a rich exposure to improvisation. Thus, in this section I will focus on her conception of dance teaching. For Martha, dance should be expressive whatever the context. Even the simplest movement in a teaching situation should convey something about the internal feelings and thoughts of the mover. The dancers' instruments, their sensitive bodies, should be developed to express and communicate their internal motivation:

To dance is to communicate. This communication, with or without the intent to perform, may potentially describe the full gamut of human experience. However, this experience must be conveyed outwardly through the dancer's own body; what lives within must be given enough intensity so that it may be perceived by observers. Ideally, dance classes are where the understanding of this kind of communication is emphasized, along with the sheer pleasure of movement. Instructors may teach such skills by focusing on the feeling of movement rather than simply on its outward appearance. The student may then be able to perform so that the embodiment of a truly integrated statement is expressed. (M.D.P.1)

With this conception of dance, it is not surprising that Martha rejected the compartmentalization of dance classes into dance technique, composition, and improvisation. To Martha, dance class aims at increasing the dancer's sensitivity to the self, which then must be carried out to the outside world. Dance, either in performing or class situations, should take into account the whole person and not be separated from its expressive statement:
Dancing is all of this. Why not use it all? Why does a dance class have to be technique class and another class have to be an improvisation class? Let's have a dance class and use all the tools that are within dance. Contact, lack of contact, group work, solo work, improvisational forms of work, some structure, lack of structure. That it's a dance class. It's an opportunity to dance. (G.I.2)

Actually, to her, strict technical dance classes are based on the mimicry of the teacher's idiosyncratic movement and for this reason have value only in a particular context:

If you're about to perform in somebody's repertory and you're going to really embody it, it's helpful preparation [to take strict technical dance classes] but if your goal is to discover yourself or to work on your own choreography then for a dance training class to do that, maybe it's better if it's open ended and less about ritualizing someone else's movement. (M.I.1)

Though her teaching did not reflect any particular modern dance style, she recognized that her teaching inevitably embodied her movement idiosyncrasies. "I like moving with free flow and sustainment and stretching out and opening, which is basically working with the theme of breath" (M.I.1), she noticed.

With this general conception of a dance class, Martha developed an original class called Body-Mind Dancing. In the advertisement for the Bates Dance Festival, the class is described as follows:

Body-Mind Dancing/Modern 3 is designed to experientially teach principles of anatomy, kinesiology, human development, and movement fundamentals in relation to emotional/artistic expression. The aim is to coordinate inner body focus with the outward projection needed in performance. Emphasis is on befriending unfamiliar, unknown, or taboo parts of the body and psyche, learning to include them in the creative process. (M.D.B)

Martha's encompassing stance toward dance class is clearly revealed in this description. Words such as "emotional artistic expression," "body and psyche," "creative process" or "inner body" are unusual for describing a technical
class. Interestingly, in the evaluation questionnaire of the Bates Dance Festival, one-third of the students mentioned that the description of the class itself motivated them to enroll in the class. Another third of the students explained that they were interested specifically in the integration of Body-Mind Centering and Laban work in a modern technique class. The rest of the students mentioned reasons such as the level of the class and the convenience of the schedule. Martha liked the name and the description of the class "because it gives me freedom to do what I want. . . . I am interested in letting them [the students] find their own way" (M.I.2). Despite that, she sometimes felt the pressure to conform to typical dance classes such as to include complex combinations at the end of each class.

Another reason Martha stayed outside of the mainstream of dance technique was that she did not perceive herself as a technician, that is, someone who had mastered the highest degree of typical dance skills such as alignment, balance, coordination, flexibility, strength, etc.

I think that's why I'm more often talking about dance training. In my own advertising I'll say body mind dancing, a system of dance training. So it's training for dance. It's not really just technique because I don't have really pure technique. It's more a way of learning human anatomy and physiology and how to use their bodies in dance. (M.I.1)

**Summary**

Martha's teaching is informed largely by two conceptual frameworks of movement analysis. To her, that prevents her teaching from relying too much on her personal movement idiosyncrasies, which she sees as a barrier to the individual expression of the students. Indeed, Body-Mind Centering and
Labanalysis lay some claims that they avoid the rigid idiosyncrasies of technical style. These conceptual frameworks seek to be complete and to avoid what is seen as the limitation of tradition or personal idiosyncrasies. In *Modern Educational Dance*, Laban (1948) defined free dance technique as having no preconceived, prescribed style. Perfected technique, he argued, is based on the full mastery of space, time, weight, and flow. In a similar way, in the article "The dancers' warm up through Body-Mind Centering," Bainbridge Cohen (1988) argued for a technique that is not based on aesthetic style:

> The support and articulation of the major body systems and our early developmental patterning are the basic foundations of all our movement, ranging from everyday activities to the more skilled and complex movements of the dancer and athlete. (p. 28)

Martha recognized that no one teaches without an idiosyncratic movement style. However, Labanalysis and Body-Mind Centering provided her the tools to develop a more general dance technique, a form of body training that diminishes the reliance on personal style. It is interesting to point out that some dance educators present a completely opposite argument. Susan Hadley (personal communication, April 14, 1992) argued that learning modern dance style is actually learning a wide array of idiosyncratic movement styles. A skillful modern dancer is one who can pick up quickly and accurately the idiosyncrasies of different teachers and choreographers. For Martha, learning systems for observing and identifying movement components enables people to comprehend movement and therefore to embody diverse styles.
What Are the Central Organizing Principles of Martha's Content Knowledge of Modern Dance Teaching?

When asked about what the students would learn in her class, Martha answered:

The goal is for people to find out through both developmental theory and experimentation with qualitative movement that different types of movements elicit different mind states, different qualities of being and therefore hopefully can help us in our communication with each other and also in our own feeling about our life. (M.I.1)

Examination of the observational data reveals three central organizing principles highlighted in this extract: variation of space and dynamism, developmental body part relationships, and moving from inside out. In the next paragraphs, I will describe each of them, whereas specific examples of how these three central organizing principles are manifested in Martha's teaching will be provided in the next part of the chapter.

Variation of Space and Dynamism

To Martha it is of prime importance to help dancers "to access different kinds of expression" (M.D.C). Since expression is related to the optimal use of their instrument, Martha's class aimed to increase the dancers' spatial skills and widen their dynamics of movements. To do so, Martha relied strongly on the body's component system of Body-Mind Centering and the Effort and Space framework of Laban analysis:

Using Laban Movement Analysis [I] can encourage a student . . . to expand their movement range dynamically and spatially. Laban Movement Analysis gives [me] a language for describing what [I] see in a person's movement style (for instance their characteristic use of space, time, weight, flow, dimensions, planes, levels, pathways, body
parts). I can then refer back to Body Mind Centering to discover what physiological systems are active or passive in that moment. (M.D.P.1)

Developmental Body Part Relationships

Developmental work is a driving force in Martha's teaching because she believed that sensori-motor conflicts that prevent optimal physical and psychological functioning at adulthood are rooted in inefficient patterns in the initial movement organization of our life, that is from fetal life up to voluntary mobility within relation to the earth's gravitational field. Martha's schooling provided her with two different developmental systems of movement: the perceptual-motor development theory as taught at the Body-Mind Centering School and the Bartenieff Fundamentals taught in the Laban Certification Program. In her writing Martha explained how the two systems, which aim at increasing efficiency of movement patterns, share commonalities:

[Both systems] distinguish themselves from more traditional approaches to movement study in that they begin the study of the development process with acknowledgement of breathing as the most fundamental movement, and movement in and away from the naval center as an intra-uterine precursor to all other movement. (M.D.D)

From breathing, Martha went on to explain how the two systems can be used to conceptualize movement organization into six progressive levels, though they use different terminology. Core-distal, head-tail, upper-lower, body halves, and diagonals are the terms used in Laban analysis. The equivalent concepts in Body-Mind Centering are referred to as naval radiation, spinal, homologous, homolateral, and contralateral. To Martha, the six basic exercises of Bartenieff Fundamentals can be related to the developmental theory of Body-Mind Centering. For example, the lateral pelvic shift in Bartenieff Fundamentals
requires a homolateral push of one leg when analyzed through the Body-Mind Centering framework (M.D.D). The understanding of these relationships provided Martha with an analytical tool to look at efficiency of movement and good alignment. For her, "developmental work is the bridge for connecting to center and to strengthen the ability to perform in a grounded way" (M.I.1).

Moving from Inside Out

The central organizing principle, moving expressively from inside out was borrowed from Body-Mind Centering and Labananalysis but more at a philosophical level. It does not refer only to motor material per se. Moving from inside out refers to the students' development of their inner and outer worlds. It encompasses psychological and social dimensions as well. I include it as a central organizing principle because observations of the class revealed that Martha's priority of connecting the self with others influenced the tasks presented in class:

It's not a Laban, it's not a Bartenieff, it's not a Body-Mind Centering theme. It's more exposing how movement brings out different qualities of being and communicating. (M.I.1)

Martha said that in her class "one learns to better regard one's emotional and expressive self" (M.D.2). Body-Mind Centering and Labananalysis both emphasized the physicality of thought and feelings. Laban wrote:

The source whence perfection and final mastery of movement must flow is the understanding of that part of the inner life of man where movement and action originate. . . . Man's inner urge to movement has to be assimilated to the acquisition of external skill in movement (cited in Bartenieff and Lewis, 1980, p. 49).

Similarly, Bainbridge Cohen (1984) wrote:
We can only express it through the body. The more neurological pathways that are established in the body, and the more basic integration it has, the easier it is to express the multifacetedness, the wider and with more breadth and depth will be the possibilities for expression and understanding. ... I think that all mind patternings are expressed in movement, through the body. And that all physically moving patterns have a mind. ... People are impressed—in any of the work, whether it's through the body systems or through the developmental work—that we're really dealing with the physical manifestation of mind. (p. 29)

Summary

Each of Martha's central organizing principles finds a root in both the conceptual framework of Labananalysis and Body-Mind Centering. Those central organizing principles stressing the individuality and variety of expression contrast with the prevailing approach in dance teaching that is "based upon principle of standardization, specialization, uniformity, and conformity" (Gray, 1990). Both conceptual frameworks value dance for its contribution to creative self-expression and its potential to foster personal growth. Both include physical, mental, emotional, and spiritual aspects. These systems don't place emphasis on the development of rote technique skills. Both Laban Movement Analysis and Body-Mind Centering work primarily through improvisational structure in order to encourage students' differences. This is not to say that they embrace the idea of unbridled self-expression. They believe in the importance of the teacher's motivation and guidance and, more important, Laban Movement Analysis and Body-Mind Centering are grounded on a delineated structure. Their conceptual structure for the analysis is the device used to rationalize a selection of learning experiences. The teaching of the structure of movement is the key to meeting the needs of a
variety of students from the pedestrian to the highly skilled dancer. The teaching and learning of the principles and structure of movement, rather than simply the mastery of facts and technique, are seen as the solution to the problem of transfer. The more basic the learning the greater the breadth of applicability to new situations. Because the work addresses the foundation of the moving body, it enables students to engage in more complex learning as well as to refine complex movement skills. Whereas this section showed how Martha's central organizing principles are closely linked to the two conceptual frameworks of Labananalysis and Body-Mind Centering, the next part of the chapter will illustrate through concrete examples how those concerns translated directly into instructional tasks.

On What Bases Does Martha Select the Content for Her Teaching?

In this section I will examine the bases on which Martha selected content for her teaching. From interview and observational data it became clear that the conceptual frameworks of Body-Mind Centering and Labananalysis and her past experience both as a student and as a teacher were the main factors that influenced Martha's selection of instructional tasks. Other influences were her own movement preferences and those of the students in her class.

Conceptual Frameworks

Each week of the Festival Martha focused on a different theme. During the first week she focused on components of the body, such as connecting the
core of the body, breath, skeletal use for leverage, head and tail relationships, and body-half relationships. During the second week elements of space such as dimensions, planes, and floor patterns received more attention. During the last week she added the component of dynamics, the qualities produced by different uses of movement energy. A systematic organization around body, space, and dynamism themes derived directly from Laban's conceptual framework. Martha said:

I made the choice to work more from concepts than from my own personal expression. . . . Rather than just doing a movement that I like I'm usually doing a movement that I feel will teach them something, a body connection, a use of dynamics and about space. I think every teacher who is teaching their own idiosyncratic movement is teaching some gestalt, some crystallization of body use in space with dynamics. (M.I.1)

Discrepant instances, however, appeared twice, when she taught material from her own choreographic repertoire. When asked to comment, she explained that it was motivational for students to see some material that they had just learned or that they would learn in class performed on stage (since she performed in the faculty concert of the Bates Dance Festival).

Past Experiences

Other influences on Martha when selecting instructional tasks were her own experiences as a student and a teacher. Martha did not develop much new material for the class she taught at the Festival:

I have a lot of things in my back pocket. Because of my mixed interest and the fact that I have had many experiences teaching I don't need to spend a lot of time developing new material. I have a lot. (M.I.1)

She reported spending 10 to 30 minutes per day visualizing her class:
In the morning I just visualize the class. The whole picture. So I'll hear my voice and I'll see the dancing and I might even feel it in my body. And I'm checking. Is that going to work? Did I cover the concept? Is the concept getting covered? Is there enough variety? Is this appropriate to this stage? Should I wait until another day? How will the timing work with that? Have we done something to free up the flow? Do I feel prepared for this? Does it feel appropriate? That sort of question. (M.1.2)

Actually, Martha's planning consisted of selecting and organizing material from her past experience both as a student and as a teacher. In her planning sheet she referred to those tasks borrowed from her studies by the name of the teacher she borrowed from. Examples of such tasks include the Collette phrase (M.P.2.1) and the Shelly phrase (M.P.3.1). Appendix H includes a sample of her planning sheet. Some tasks, such as the diagonal scale of Laban, were taken directly from her past studies. Most of the time, however, she adapted the borrowed material for her own teaching purpose. That is the case of the spinal roll down (M.O.1.1.5), which was inspired by the spinal and homologous developmental pattern of Body-Mind Centering but executed with level changes and sometimes different dynamics. Most of the time Martha adopted material from others and fashioned it through her own conceptual framework and purposes for a specific class:

Whenever I'm starting a new series I'll think about what the larger phrase at the end of the class needs to be about. . . . I often just take things I've done in my own dance training whether it's Hawkins or Limón or Cunningham or Graham, and say what did I like about that. Then I'll start applying it to different body parts so it becomes my own. (M.1.2)

A portion of her material for teaching was selected from her past teaching experiences. For example, the warm-up, inspired by the body system work of Body-Mind Centering, was developed years ago for a group people who could not lie on the floor. "There are certain environments where I cannot go to the
floor," she said, "so I discovered a way to warm up the whole body without having to ask people to lie on the floor" (M.I.1). Though the teaching environment of the Bates Festival did not prohibit floor work, Martha started almost every class with this warm-up because she said that it was a good one: "It keeps the joint fluid going, wakes up your body parts, it attunes to the different dynamics and usually with the exception of the feet, the whole body is warmed-up" (M.I.1). Martha cited many other examples of tasks that she adapted slightly for each new context she teaches.

Martha has been a free lance teacher for the last 15 years. Over the years, as a result of her experience in many settings with many students, she has developed a large repertoire of instructional tasks. The literature on pedagogical content knowledge points out how having a large repertoire of instructional tasks gives teachers options for connecting students with content knowledge (McDiarmid, Ball, & Anderson, 1989). Having a large repertoire of instructional tasks, however, does not automatically reflect a high level of pedagogical content knowledge. A high level of pedagogical content knowledge is rather manifested in how the instructional tasks fit the context-specificity of the teaching situation. When not accompanied with reflective thinking to suit the particularities of the new teaching situation, the transfer of the tasks from one setting to another may actually reflect a superficial pedagogical content knowledge. The data from
interviews revealed that Martha did engage in such a reflective process.

Movement Preferences and Personal Needs

From a broad repertoire of tasks derived from her dance, Labananalysis, and Body-Mind Centering experiences, Martha selected a number of specific tasks based on her own movement strength and weaknesses. One day in class she told the students that she would have liked to introduce more tasks involving balance, extension, and leg gesture because her body needed it. Asked to comment on this in interview, she said that she tried to find a balance between covering a rational framework of movement concepts and taking into account her own body needs:

I have to watch it because I'm again doing things that I prefer that are my own easy movements but on the other hand why not to do what you do best? So those [students not pleased] they can go to another teacher that does balance work, développé à la seconde, that kind of thing [that were not her strength]. (M.1.2)

Martha's own physical needs influenced not only the selection of specific tasks but also sometimes the unfolding of the lesson. Observational data indicated that the typical unfolding of the lesson varied twice because of Martha's own state. During the second week she introduced a class as a special class to deal with pain. Ask how she made the decision, she answered:

I don't know how much you want to publish this kind of thing but astrologically today they say that there is something called the moon "going void," the energy from the moon has no governing force. . . . When the moon is void it's a time to be deep within. So I had all sorts of intentions for today, for myself and the class. When I was doing my own meditation I thought I'm very in touch with my own subtle pain and I said okay. We've had the weekend off. We've relaxed although we've done a lot. We've all danced one day. If I'm in pain probably
they're in pain so it was a leap to go in that direction but it turned out to be right. (M.I.2)

With the exception of a few tasks, the class dealing with pain consisted mostly of the same tasks as the other classes. The main difference, as Martha explained, was "taking time to go to the level of the organs which is where emotions and feelings and deep pain are, it's the source" (M.I.2). The next quote from the observational data provides an example of what it meant in class to go "to the level of organs." The task consisted of falling in all directions from a sitting position and being caught by a partner:

What we are going to do is take the image of working with the organs. As she [her partner for the demonstration] goes I really try to catch her organs, so she can really let go while holding her head. She lets me catch her inside and it includes the weight of the brain. Let me take your weight. It is a little bit more like contact improvisation. Try to see where your partner falls and you have to be there. If she feels you there, she might go further but she will not go unless she feels support. She is falling, you're catching, then wait. Stay with her, you want to be with her. It is like saying I am here for you, I've caught you. (M.O.2.2.6)

After demonstrating the task Martha engaged in the task as a participant to benefit from the task herself. The task then evolved into an improvisation.

Martha participated again and encouraged an internal focus by singing a kind of gospel music:

Breathing, finding a little home inside. There is a little inner music going right now and just follow your inner music. And again let the voice come through. So you find your own movement. Checking for any sore spots. How can you breathe and let the organs shift through there for an inner massage? Challenge yourself to carry this into a more whole body movement, just see where it can take you. If you really need to rest then rest, respect that but otherwise see if you can use what you just received for your own expression. (M.O.2.2.10)

The last vignette shows that Martha used the class to provide opportunity for emotional release for both her and the students. Her goal in the class dealing with pain emerged from
her own need on that particular day and from her belief in the positive connection between art and therapy. Anchored in her knowledge of dance therapy, the tasks sometimes offered a channel for spontaneous physical and emotional release. Open-ended movement tasks were used to encourage the students to express themselves in a safe environment. Therapeutic purposes not only stemmed from the expressive activities or overlapped the educational tasks but were sometimes the primary focus.

The Students

Another factor that influenced how Martha selected instructional tasks was the students—their skill levels, their unexpected states, their feedback, their enjoyment, and their interest. Martha felt that the students were at the Festival for an intensive experience and ready to handle challenging movement tasks:

I feel this group really wants something new every day. I don't know if it's my own projection or just the nature of the Festival but looking around at what's going on in the different classes, they're dealing with much more complicated material. (M.I.1)

Martha mentioned that the Bates Dance Festival offered her the opportunity to work at a higher level than usual:

It's nice for me to have this opportunity. Often I'm in environments of mixed levels and I cater to the more low and intermediate. So here's a chance to cater to the higher. Working with jumping and turning and level changes at a faster rhythm and it's nice for me because I get to do those things. (M.I.1)
Interestingly, when asked if she had specific objectives for individuals she first answered no, then actually went on describing some:

I didn't set really specific objectives for each student. It's my objective each day to pay attention to each student at some point and to set some kind of objective within an activity at any given moment. I'm thankful for the size of the group for that although again I feel like there would be more energy in the class if we had a larger group. Then I would have to take a slightly different approach. In which case I might have more group objectives and then check in with them. With Monik I do have the objective of attempting to get her more connected between her upper and lower. With Bob also, but he has dropped his pelvis. He's really working on it. With Mary and also Diane I have the objective for them to feel more peripheral tension and more protection. With Ernest I could develop a lot of different objectives but more importantly with him I'm just glad that he's there and that he's doing fine. Just being exposed to so much and there's lots I could work with him in terms of really feeling his length and filling out space. But I've never really systematically gone through and thought about each student. That all just happens spontaneously. (M.I.3)

Martha clearly knew her students, which enabled her to define individual objectives for them. Individual objectives, however, were not planned decisions. The objectives set prior to teaching were more focused on the group. Individual objectives emerged in the interactive phase of teaching and remained unarticulated. Individual objectives, being a heuristic device, shaped and altered the flow of instructions. She discovered what she wanted to accomplish with specific individuals after the fact. Martha worked intuitively rather than analytically to provide individual attention to the students. This is consistent with Elbaz's findings (1983) that a large part of the practical knowledge of teachers arises from the direct interaction between the teachers and the classroom events.
Martha also mentioned that the interests of the students influence her selection of the tasks, though that factor seemed to be of secondary importance:

First of all I'm beginning to get a sense of what they like and what they don't like. So I always want to give them something that they find satisfying like that sit-up sequence, for instance, much more than the other sit-up ones. In some cases I know I'm just alternating so if I do something one day I miss the next and then I do it the following day. In some cases I really have a goal so the goal might be I've done something that is "head and tail" based one day and then I will do something with body half the next day, more at the body level. (M.I.3)

Finally, Martha pointed out that being sensitive to the students usually did not prevent her from following her teaching agenda:

There's definitely the time when I'm responding to something in the moment where either the energy of the whole group shifts or the day starts totally different than I expected or somebody gets hurt or something happens. Where someone comes in with a particular body problem and so I'll want to address that. But otherwise I can pretty much stick to a point. Even if I don't do exactly the movement I expect, I'm at least still sticking to the point.

**Summary**

This section focused on those factors that influenced Martha's selection of instructional tasks. The analysis revealed that she organized the tasks around themes derived from the conceptual frameworks of Labananalysis and Body-Mind Centering. Dance teachers have usually more autonomy in their teaching than academic teachers. They don't have textbooks guiding the content covered. In modern dance, syllabi consisting of graded tasks, which offer a progression through levels of increasing technical difficulty, are extremely rare. Martha was responsible for her curriculum. Because modern
dance does not rely on a given body of knowledge formalized in a given curriculum, the impact of learning through apprenticeship tends to prevail. Each teacher borrows from his or her own teachers, altering the material to his or her own personal body limitations and facilities. She explicitly recognized that her teaching relied on her apprenticeship. The data, however, suggest some dilemmas between this source of influence and the grounds on which she made decisions for specific instructional tasks. While paying some attention to the interests of the students in deciding which task to present in class and to the theme chosen, she based her decisions mainly on her personal preferences, taking into account her physical and emotional needs. Martha related this to her belief that taking care of oneself as a teacher provides a role modeling for students to be self-caring and to recognize the teacher as a vulnerable human being. In the end this ideally fosters healthy autonomy.

Synthesis of Findings and Discussion

Hawkins (1964) contended that through experiences in dance the individual grows in self-understanding, in relation to others, and, in turn, in total development. Martha shares this humanistic view of dance. She believes that refined techniques based on idiosyncratic styles sometimes have obliterated the instinctive ability of people to move expressively. She believes that the restrictions of traditional dance style can be escaped by using a form of body training as a basic technique. This is in reaction to what can be called "hard" technique, in which there is an emphasis on control, tension, upright
position, and replication of a given model. Martha is looking for a "softer" technique, in which exploration of the "neutral" movement framework enlarges individual mobility and expression, from which emerges genuine personal style. Martha's continuous emphasis on "making your own movement" echoes Johnson's (1983) view of personal bodily authority. He showed how people have been systematically alienated from their personal authority and made dependent on experts. Johnson said that "the fundamental shift from alienation to authenticity is deceptively simple: It requires diverting our awareness from the opinions of those outside us toward our own perceptions and feelings" (p. 154). Authenticity means giving up the opinions of others and returning to individual perceptions and feelings. Martha was dedicated to finding her own bodily authority as well as to helping her students recover their own bodily authority. She presented forms to copy but saw them as ways of tapping into otherwise unknown depths of the students' bodies rather than outer forms into which the students have to attempt to force their bodies. She basically encouraged students to discover and develop their own practice. She used movement forms that pleased her but the point was for students to recover their own idiosyncratic kinds of movements. Forms are used as clues, not norms. In a way this represents a rejection of aesthetic authority. One of the important features of adopting a theory of dance as expression is that it relieves the burden that art should be concerned with something formally "beautiful." The formally "beautiful" is replaced with the acceptance of a wide range of qualities. These may include the conventionally beautiful as well as the ugly and the bizarre. The next quote,
from a critical incident questionnaire, seems to suggest that this open
aesthetic challenged a student:

I had a tendency to want to disdain the "childish" nature of many of the
exercises that Martha does. I did not want to do them because I
considered them "unsophisticated" movement. It was a challenge for me
to try to get past these preconceptions and really get into the class.
(M.I.C)

While presenting evidence of a search for a more general technique
than the ones favoring one or another particular style, this section has also
showed that Martha's teaching relied heavily on her apprenticeship of
observation in a particular dance style. The literature often points out that the
apprenticeship of observation supports the conservatism of teaching, as
teachers replicate what they experienced as students (Lortie, 1975). In
Martha's case the situation is different. Martha had a deep understanding of
Labananalysis and Body-Mind Centering that allowed her to borrow tasks from
her past experiences and to organize them in a conceptually coherent way.
Her teaching did not result in a collage of borrowed steps for their own sake.
She engaged in a reflective process to connect the means of instruction with
the ends. Though she drew from her apprenticeship of observation, her
teaching was more innovative than conservative because her teaching was
informed not only by her dance teaching experiences but also by her
experiences as a student in Labananalysis and Body-Mind Centering,
disciplines peripheral to dance. In other words, Martha had a repertoire of
tasks from her dance background, her studies in Body-Mind Centering, and
from Labananalysis. The tasks presented in class were sometimes transferred
directly from her past experiences, sometimes modified, and sometimes created
by Martha. Labananalysis and Body-Mind Centering provided Martha a
repertoire of tasks but, more important, gave her a conceptual framework to make sense of her training in dance. Indeed, since she was a child, Martha had accumulated a wide range of experiences in modern dance. What Body-Mind Centering and Labananalysis seems to have given to Martha is a set of organizing principles to provide direction for her prior knowledge of dance. She discovered how to relate in a meaningful way to the various dance vocabularies she knew.

What Are the Teaching Practices Exhibited by Martha?

Part Two of this chapter will focus on Martha's ability to pedagogically represent her knowledge in instructional tasks for the students. I will describe first the instructional climate of Martha's class. Then I will address how the content was manifested through learning tasks. Finally, I will examine the patterns of tasks within and between lessons.

What is the Instructional Climate and How Is It Conveyed?

In this section I will first describe the joyful and nurturing climate that prevailed in Martha's class. Then I will examine the few discrepant cases.

A Joyful and Nurturing Climate

At the first meeting between the students and the faculty of the Bates Dance Festival, Martha described her class, expressing her wish to create a joyful learning environment. "In a dance class I want to have fun" (M.I.1),
she reiterated in interview. In class, several verbal expressions contributed to bringing attention to the sheer pleasure of dancing: "Stay there as long as you enjoy it" (1.3.1), "last minute playful" (3.1.1), "feel the pleasure from that movement to that movement (2.2.7), "it's the last time we do that so enjoy it" (12.5.6). Martha definitely enjoyed dancing and teaching and communicated it to her students. One day, despite the formal closure of the class, most of the students kept improvising with Martha to the music of Paul, the musician, who became an integral member of the group to the point that he once performed a task with the students. Martha certainly succeeded in developing a joyful, cooperative, and friendly atmosphere.

This emphasis on pleasure is not usually found in a technical class. On the contrary, the students' attitude toward dance learning is often described as follows: "The one who suffers will make it" (Duffy, 1991). The literature provides several anecdotes about dancers who "danced through" injuries, trying to ignore rather than understand their sensations (Berardi, 1991). Myers (1986) pointed out the importance of "maintaining a constant dialogue between sensory and motor systems" (p. 164) when learning dance movement.

When asked to describe the climate of the class, Martha promptly answered:

Nurturing in the sense that there are times when we really go very slowly. That there are times when we have touch. That there is this permission to just sleep. That there is usually very lyrical music. Some rhythmic undertones but almost always there's a lyrical component. That there is a focus on breath. Those kind of things. Even though I still try to give them a sense of drive and movement and a push that the undertone of it has these other qualities. Breath support, touch,
communication with each other. Ability to talk a little bit to each other and to the teacher. I think it's not typical to most technique classes. I don't know if there they get to have any kind of emotional component. (M.1.4)

Expression and communication were important values in Martha's teaching that increased the importance of the source of expression, the persons themselves. For example, the first activity of the class was a movement game to learn each other's names. Done in a playful mode, the task was to walk through space moving freely, to freeze to look around to make eye contact with someone and share each other's names. The students were often invited to pay attention and to make decisions about their own physical and emotional states. Martha's reassuring voice contributed to establishing a secure atmosphere with verbal expressions such as, "Each time I want you to find places that are not automatic but places that mean something to you" (M.O.1.1.3). "Check in, say good morning to yourself again, how do you feel?" (M.O.1.4.1). "Do what you need to do for yourself" (M.O. 2.1.11). Students had the freedom to decide to stop participating to sit on the couches along the side of the room. At the end of the second week of the Festival, two students spent the entire class napping on the couches. Martha started the following class asking the students to observe the class when they chose to not participate physically. In interview, she commented on the incident as follows:

Usually that feels okay. Because there is a sense that they [the students on the couches] care enough to come. It's a nurturing human environment and they're still picking up some of the material. But the fact that they're not even watching at this time to me says that they're so internal that they need to be home for their own sake. On top of that you feel the tiredness in the room and it makes it a hard job for everybody else to kick in because they have to kick in enough energy to also sort of overcome the fatigue. I'm going to talk to the whole group tomorrow. That I'd rather people watch or not come. (M.1.4)
In all situations Martha kept a positive attitude toward the students. She was always available at the end of the class to help the students with their problems whatever they might be. At the end of the first class she said, "I'm very open to hear your ideas and input so please talk to me" (M.O.1.1.17). She also sometimes sought student input within the class. For example, she asked them which sit-up exercise they preferred among the different versions they knew (M.O.2.3.6). During class she took time to answer their questions though she had a plan that she usually followed quite closely. When asked what her classes offered that was different from other modern classes within the Festival, her answer showed the importance to her of giving attention to the students:

On a more pessimistic note it [the class] is a place for the people that really get lost to have a little attention. Someone like Diana who really feels like a thorn in people's side, sort of always nagging and having problems. She gets to get some attention in this kind of class. I'm notorious for having people with problems coming to me. But my goal is to get beyond that and then also to have it be a place for perfectly normal, perfectly healthy people to just explore their own movement and concepts. It's a chance hopefully to integrate learning through the improvisation. To take it in. There's a place where they can get that kind of attention, it's a nice thing. If the class was 40 people it would be serving a different function. So part of the nature of the class right now is that it's more intimate. There are certainly lots of other things like the specifics of the material and what they're learning but they may not get another class that deals with emotional stuff. Above the material itself, it's creating an environment that's both nurturing and stimulating, and integrating. (M.I.4)

No doubt Martha succeeded in the creation of a supportive climate. In the course evaluation distributed by the Bates Dance Festival, the students described Martha as enthusiastic, joyful, wonderful, nice, intelligent, brilliant, thoughtful, logical, expressive, fun, sensitive, inspiring, patient, warm, and having incredible and positive energy.
A final factor that perhaps contributed to the creation of a positive climate is that evaluation was based on attendance and thus was not stressful for the students:

Basically we have to give them a grade and it's based on attendance. If we wanted to do something more elaborate we could, but basically we give everybody an "A" that comes to class. In a regular university setting I would give them some papers to write and I would tell them from the beginning that I'm also going to evaluate their progress so that they know what's going on. (M.I.3)

**Discrepant Instances**

The general positive climate sometimes weakened within a class. That was noticeable by behaviors and attitudes such as the students' lack of enthusiasm, the number of questions asked to clarify the task, and the disengagement from the tasks. Though there are several possible interpretations for the deterioration of the climate, based on the observational data, I will focus on the lack of clarity of the instructions.

A source of confusion mentioned overtly in class by some students was indeed the lack of coherence between the stated tasks and the actual tasks. It happened a few times that the task statements were inconsistent with the structure of task practice. During the first class Martha invited the students to always feel free to adapt the different tasks as they wished:

I'm going to give you more of a set of combinations but I would like you to know that in my class, basically it's an invitation to improvise on themes that I give to you, so you make it feel good for your body. I might come to you and say "What are you doing?" and just say "I'm doing my own thing." So I know when you want feedback and when you don't. (M.O.1.1.4)

Martha's motivation to allow room for personal interpretation is related to her central organizing principle of letting the
students express their individuality through a wide range of personal variations. On the one hand, individual interpretation of the task might be seen as one of the important skills of a good performer. The teacher who assigns tasks with loose boundaries to let the individuality of the performers emerge serves the ultimate goal of art. In this line of thought, allowing degrees of freedom in reproducing the close-ended task is seen positively because of its contribution to the interplay between the strict physical components of the tasks and the open character of interpretation. This is just speculation. The opposite argument is defensible. Technical professional dance classes may be perceived as allowing little room for individual variations because the instructional tasks are shaped by the rigorous and rigid standards of the professional milieu. The ultimate goal of the dancer is to go on stage and execute specific motor tasks. As illustrated by these two scenarios, thinking about the positive or negative value of allowing personal interpretation might depend upon the teacher's conception of dance as a subject matter, and more broadly, its artistic philosophy. Martha's stance was unequivocal. In line with dance theorists such as Selden (1930), Martin (1965), and H'Doubler (1959), she believed that the technique of training must be more than just a collection of arbitrary movements. Training technique is taught so that students achieve a personal level of performance
that supersedes the mere imitation of someone else's idiosyncratic movement.

Sometimes the message to adapt the demonstrated tasks was explicit. The students were invited to improvise from the demonstration just provided:

A little faster. I'll do it with you. Now I want you to do it more with a sense of movement. Don't worry about all these numbers. Just sort of move, improvise. We'll do it again so you can get it perfect another day. (M.O.1.1.13)

Other times, despite the general invitation for individual adaptation, the tasks were explained in such detail that they conveyed the implicit message to reproduce the form of the task as accurately as possible. The confusion came when Martha did not make clear the degree of conformity she expected between the stated task and the execution of the students. Actually, the tasks varied on a continuum from "copy me" to "do what you want." The open and closed-ended characters of the tasks will be described in detail in the next section. The students sometimes did not know Martha's expectations in that regard. On one occasion a student expressed with an unquestionable tone of frustration that it was not clear to him if the sequence had to be performed in unison respecting the given form of the demonstration or at personal rhythm allowing room for individual interpretation: "Sometimes you'll start and I'll think you give an example and I realize that it was not an example. . . . I hate it" (M.O.3.2.5). In interview, Martha commented:

I really respected what he was saying because I know that it's confusing in the class. I do two different things. Sometimes I just want them to follow along and it doesn't matter if they start at the beginning but other times it's really a combination with a beginning and an end. He needs more clarity about what's what. So that was fine. This one definitely has a beginning and an end. Even Paul [the musician] was right there at the beginning and right there at the end. It was great. It
was a very satisfying feeling rather than always drifting through the flow. (M.I.3)

When asked if she intended to work on the clarity of her instructions on that matter, she answered:

It's not that I want to always be so clear. Sometimes I want it to be more mushy. This is the mushy time and this is the clear time, right. So that's something I'll have to say to Bob. Sometimes I have to say "Bob, follow along" and then other times I'll say, "Okay, do your own version." (M.I.2)

From these data an argument can be made that the climate deteriorated as a consequence of a lack of clarity of the instructions. Unclear instructions have consequences, not only on the execution of tasks, but also on the climate. Ambiguous instructions engendered confusion and frustration, which led to a breakdown in the climate. Martha presented open and close-ended tasks because she had different goals but she did not always provide conditions of practice that supported the differences. Open and closed-ended tasks, as well as degrees of freedom when performing the closed-ended task, were related to her central organizing principles. However, the conditions of task practice did not always support the different goals of the tasks.

The above paragraphs address the lack of clarity in regard to the boundaries of the open or closed-ended nature of the tasks. I now turn to a lack of clarity in regard to rhythm. On many occasions in class the students commented on having difficulties with the rhythm (M.O.1.4.6, M.O.1.3.13, M.O 1.3.10). From one day to another, or even within the same day, Martha often asked the students to execute the same tasks in different rhythmic structures,
which became a source of confusion for them. In the critical incident questionnaire, one student wrote about the lack of clarity in regard to the rhythmical structure of the exercises:

Martha is musical but extremely weak rhythmically. She drops counts or ends up going faster than the beat, or demonstrates one way and then we'd do it another way. For example, last Friday, we were doing a phrase in 7's, then she sped it up and said to jump on 5. Her 5's were very fast and she didn't communicate with the musician to speed up, so she was counting faster and then slower. She is inconsistent with the counts. I often found myself not being able to do the exercises efficiently because I was not always clear on the rhythm. I'd have to look at her for cues. (M.I.C.)

That strength in musicality but weakness in rhythm may be related to Martha's training. Bartenieff and Lewis (1980) explain how Laban analysis—and I would argue the same for the work of Body-Mind Centering—emphasizes personal organic rhythm rather than adaptation to an external rhythm:

Laban encouraged dancing without music to increase sensitivity to the rhythms of body tensions and to free performers from rigid, symmetrical rhythmical patterns with metrical emphases. Delineation of character and mood are evoked by their rhythmical associations with the body tensions they reflect. (Bartenieff and Lewis, 1980, p. 71)

Martha's rhythmical weakness is probably also related to the fact that she was not used to working on a regular basis with a musician. Her limited experience on a daily basis with accompanists and her goal of developing the students' capacity to express their own individuality led her to sometimes emphasize organic rhythm even when an external rhythm was given by the musical structure. It was not clear for the students
when they had to use the music as a metrical structure to relate to or as a general atmosphere to be inspired from.

Another possible source of confusion is related to the length of the tasks. From the end of the second week the movement phrases were very long. Martha combined different variations of the tasks done earlier into single long movement phrases. The students were sometimes confused among the numerous variations of an initial task. The difficulty of memorizing the tasks probably explained the large number of student questions. Martha's demonstration and explanation of the tasks were indeed generally followed by questions about the order of the sequences, the directions, and the number of repetitions. The large number of questions can also be related to the complexity of Martha's movement vocabulary. The tasks mainly derived from the conceptual framework of Body-Mind Centering and Laban analysis involved three-dimensional movements, many level changes, and many dynamic changes. Despite the fact that most of the time the tasks were systematically built from simpler to more complex, many students mentioned in the evaluation questionnaires that the tasks were challenging.

I have showed so far that the general climate was warm and supportive and that there were few instances where the climate weakened because of unclear instructions. Martha, however, recognized those few instances of a "heavy" climate (in her own terms) and she had the capacity to reestablish a warm and supportive climate. In order to demonstrate Martha's strategy of doing so, I will first describe in detail a specific incident, then provide a few other examples.
The second day of the third week, the class started with the students around the piano singing a song used later for one combination. The climate was emotional, joyful, and warm. After singing for about four minutes, the class continued with an improvisation and the usual warm-up, except that Martha included in the warm-up many tasks involving leg extension. In a stimulated recall session, while watching the lesson on video, she mentioned that she was surprised to have included this type of movement so soon in the development of the class: "I had it in my goal for that day to do more leg work, but I kind of surprised myself to do it so early on in class" (M.1.4). She had taken a jazz class just before the class and felt warmed up for such movement. She thought that the students were ready too since they were all coming from other technique classes. Then the class unfolded as usual except that at one point Martha presented the longest level change task that the students had done. Actually the task consisted of two variations of three exercises done in the previous weeks. The students spent about 20 minutes on that task, which was obviously difficult for their level of skill. After a short rest the students engaged in another long standing-up task resulting also from the combination of three exercises done in the previous weeks. The pace of the class was fast. At one point in the interview, Martha herself recognized: "It's not too often that I feel comfortable when the class slows down" (M.1.4). A student complained that the starting cue for the combination was not clear. Two students went to sit, joining two other nonparticipating students who had been lying down on the couches since the beginning of the class. One student got hurt by another one's moving too close. After the long standing-up combination the students engaged in an improvisation that Martha presented
as follows: "Just take the emotion you're in right now and see if you can use it, whether it's exhaustion, whether it's confusion, whether it's frustration, whether it's pain. See if you can use it. So use whatever your feelings are" (M.O.3.2.6). The improvisation finished, Martha asked the students to gather and to sit in the center of the room. Then she talked briefly to them. Here is how she described the gathering and her motives to do that:

I was sensing frustration, confusion because Emile couldn't get the combination, Cathy was still feeling pain from having been hit on the nose, two people were sitting, the music wasn't quite right, the combination, I think they had enough material to dance with... I just felt like, "Hey, let's gather and regroup. Just feel our whole self." What I wanted was just an acknowledgment that in a sense the energy was falling down. The main point was to bring the whole group together for a moment. The outside people and the inside people just for a moment and say we are all here part of this group. You've just danced together. Some of us have watched. How are you feeling? Let's check in. If somebody was really having a hard time I hope they would have said something at that moment. There was an opportunity. I just said, "How are you feeling?" and one person said, "let's keep moving." So great. I said, "Is that true for everybody?" One person said no. And I said, "Feel free to improvise. If I give something traveling and you want to do it in place or you just want to watch, you make it your own." Everybody else was ready to be traveling but I needed to check in with them because the energy was falling down and very dispersed. (M.I.4)

The following locomotor task consisted of four steps and four runs travelling across the floor with the arms moving from low back to high front. The students, grouped in partners, were invited to give tactile feedback to each other when opening the arms. After this task the atmosphere of the class changed. The students were smiling again, looking at each other, and attentive to Martha. The characteristics of the task per se probably contributed to reestablishing a positive climate. Physically, the task was easy. Mentally, it was not demanding in terms of memorization. Psychologically, the run had a liberating and envigorating quality, whereas the opening of the
arms had an expressive quality of offering and acceptance. This capacity to present the tasks with specific characteristics to counterbalance the negative emotional tone of the class seems to be a characteristic of Martha's teaching.

Asked to comment on this specific task, she answered:

I had the plan to do something with them during the dynamics week about moving their pelvis with strength across the floor. Feeling grounded. We did a little bit of it before that improvisation. I knew I wanted to take that again into travelling but then it felt very important to also bring it into lightness. What was new was to actually add the lightness. That lightness came and I didn't even really think about it. I just knew that that was what I wanted to do. (M.I.3)

In the incident just described Martha counterbalanced the negative emotional tone of the class with a closed-ended task presenting a positive tone or, in Laban's term, an indulging quality. On other occasions she demonstrated the same capacity, using open tasks such as short improvisations. For example, one day a long combination was finished by her saying: "So this is the mental section, we'll keep working, we'll change this phrase a lot, so again in order to get that flow you need to get at that body connection" (M.O.1.4.6). The students clearly worked hard and felt frustrated. She counterbalanced the climate by inviting the students to execute vibratory movement with all their body parts. That created a kind of cathartic quality that brought back a joyful and relaxed atmosphere (M.O.1.4.7). On one occasion she reestablished a positive climate by asking the students to gently move their heads in a sagittal plane as in the yes gesture. Asked to comment, she answered:

One way to really bring them up was to bring attention to that top vertebra. Because of the emotional aspect of the class with people hurt, people kind of on the edges, people coming and going, I felt like just access to the yes was sort of a nice thing. That they get in touch with that emotion. (M.I.4)
This quote reveals that Martha sometimes deliberately selected the tasks, paying attention to the emotional climate that the characteristics of the tasks conveyed. The Effort work of Laban analysis and the body system's work of Body-Mind Centering provided Martha knowledge about how emotions and thoughts are embodied in different qualities of movements. To her every movement, or transference of weight, gesture in any part of the body reveals some feature of the person's inner life. Weight, space, flow, and time, as well as skeletal, muscular, fluid, organic, and nervous systems, are components of all movements that she manipulates, intuitively or systematically, to alter the climate of the class. Martha believes that movements reveal a state of mind, thus manipulating characteristics of movement affects the state of mind.

Summary

Reynolds (1992), presenting the findings from the literature on effective teaching, reported that competent teachers are characterized by positive expressive qualities such as empathy, supportiveness of students, sensitivity, enthusiasm, warmth, care, and respect. Based on the comments of the students, there is no doubt that Martha was in that sense a competent teacher. The data also revealed Martha's competency by her capacity to create or reestablish a supportive climate. Her uses of tasks with specific characteristics to reestablish the effective climate was sometimes deliberate,
other times nondeliberate. Her knowledge base allowed her first to perceive slight variations in the classroom climate and to quickly react by presenting appropriate tasks such as in the example of the "shaking" improvisational task just provided. She acted fluidly, behaving in ways that are not easily described as deductive or analytical. As Berliner (1988) pointed out, the so-called intuition of expert teachers is not irrational but rather the result of years of experience.

How Is the Content Made Manifest through Learning Tasks?

In this section I will present how the three central organizing principles of Martha's teaching, variations of space and dynamisms, developmental body part relationships, and moving from the inside out, were manifested in her teaching. I will first describe four categories of tasks that emerged from the data. Then I will examine how these tasks served each of Martha's central organizing principles. Finally, I will address some characteristics of her communication of the instructional tasks that also reflect her central organizing principles.

Instructional Tasks Categories

Four categories of tasks emerged inductively from the data; the routine copy tasks, the theme and variation improvisations, the guided improvisations, and the free improvisations. Each category will be defined and examples of tasks for each category will be provided.
Routine copy tasks. This category refers to the most common kind of tasks observed in dance classes, e.g., copy the model. The routine copy tasks were set and often repeated the same way from one class to another. Even when variations were introduced, these tasks kept a set character. The movements were exactly prescribed and repeated according to Martha's demonstration. Most of the tasks of the class fell in this category. Examples of such a task include, in Martha's own terms, the "spinal roll down" (M.O.1.1.5), the "waltz-tango" (M.O.1.2.7), and the "abdominal" task (M.O.1.2.8) that were repeated with different variations from the beginning to the end of the Festival. Also in this category were the different level change phrases (M.O.2.1.11) and the final combinations of the classes (M.O.1.5.12). The duration of the routine copy tasks varied from two to 23 minutes. Descriptions of a few copy routine tasks are provided in Labanotation form in Appendix K.

Themes and improvised variations. A task was classified as theme and improvised variations when Martha initiated the movement and invited the students to vary one or many qualities of the demonstrated movement. A movement theme was offered and, under the more or less open guidance of the teacher, the students explored different movement possibilities. These tasks occurred frequently and typically followed a routine copy task. Often the duration of the tasks was short, two minutes or less. In other words, the theme and variations task was often linked to a technical task and its purpose was to vary the execution just done. For example, after having to reproduce a specific way of jumping demonstrated by Martha, the students were invited to continue jumping their own way (M.O.3.2.14). Other examples consisted in repeating the "diagonal scale" task in any direction chosen spontaneously by
the students, or applying to the pelvis the dynamisms performed with the arms
(M.O.3.2.7).

Guided improvisation task. In a guided improvisation task, students
initiated the movements under the verbal instructions of Martha, who had a
clear agenda. These tasks had explorative purposes and were sometimes done
with a partner. These tasks occurred at almost all class beginnings and lasted
between three and 22 minutes. Guided improvisation tasks were used to
introduce the concept of the class, though it was not always explicitly stated.
For example, one day Martha started the class by asking the students to put one
hand on their head and one hand on their tail (the tail is the common name
used for the coccyx). The task progressed as follows:

Feel the relationship between the two. You can move forward, you can
twist. You can play with different speeds of impulse or even dare as you
warm yourself gently to go into level changes. Head and tail connection
through your spine. Sometimes you may find your hands want to slip
into the thoracic area or to your lumbar spine. Just waking up all parts
of your spine, all various vertebra. Play with internal focus and
external focus. Sometimes your eyes closed and sensing and sometimes
letting your eyes open to move your head. Curiosity. How do you adapt
through your pelvis, your center, as your eyes, your ears, your
curiosity lead you in new directions? Check out your side bending, your
forward bending and your twisting. Sometimes simultaneous closing
and opening through your spine, and sometimes in a kind of snake-like
sequence. Head-tail connection, finding all your variations. (M.O.1.3.1)

Free improvisation tasks. In free improvisation tasks the students
initiated the movements and received very little guidance from Martha. To
initiate free improvisations, short verbal instructions were provided such as,
"Do what your body needs to do, little noodling, just easy and gradually finding
an end standing up" (M.O.1.4.5). Free improvisations occurred every day at the
end of the "spinal roll back" task and lasted about three to five minutes. Their
purpose was partially to recuperate after the first 20 to 30 minutes of the class
and often to offer the students a way to make the transition from the floor
level to the standing level. Some free improvisations were also presented at
unexpected moments, when the climate deteriorated, when "the energy was
falling down" in Martha's terms. In those situations, Martha invited the
students to improvise with instructions such as, "Take two minutes to move as
you want to move. How do you feel? How do you want to feel?" (M.O.2.2.7).

**Task Categories and Central Organizing Principles**

I will now turn to how the different kinds of tasks reflected Martha's
central organizing principles connecting self with other, variation of space
and dynamism, and developmental relations of body parts.

**Tasks categories and moving from inside out.** To Martha it was of prime
importance that the students connect with their selves but also that they reach
out "to the group, the environment, and make connection to their life" (M.I.2).
An analysis of the different kinds of tasks showed that the central organizing
principles of moving from inside out or connecting to the self and the others
was manifest both in routine copy tasks and improvisational tasks.

In the routine copy tasks, connecting the self and other was induced by
frequent short verbal expressions such as: "bring your attention out"
(M.O.1.2.5), "make a decision as to where you're looking at any movement"
(M.O.1.1.13), "look around, I don't see you really seeing anything. See
something to the right, to the left, really look, look out. I don't believe that
any of you are seeing anything" (M.O.1.4.5). Sometimes the students were
asked to perform the tasks in a few clusters to look at each other (M.O.2.2.3).
Reaching out was also encouraged by numerous changes of spatial orientation
throughout the class. In typical modern dance classes, the students execute most of the tasks on a single spot, often facing the mirror. In Martha's class the routine copy tasks were performed either facing the mirror, another wall, the corner of the room where the musician was playing, or any direction the students wanted. I will address in the last section of the chapter this topic of the different spatial orientations. The point here is that the numerous spatial facings were motivated not only by avoiding or using the mirror, which induces an internal or external focus according to Martha, but also to systematically lead the students to reach out to their environment in a variety of ways:

The main other reason for the changes, and they happen in different directions, is just to be aware of the room, to be more aware of the environment. To respond to space itself rather than to be so self-involved. That you respond to the musician as a human being that we're dancing with. To orient your dance sometimes. It's a training for performance to know when you're looking at the stage. When you're in your own world. When you're wanting to see each other. To distinguish those. It's a very Laban-oriented thing to value every part of space. (M.I.2)

The central organizing principle moving from inside out was also manifest in improvisational tasks:

Improvisation for me is a chance for people to fully be inside themselves rather than just putting on my movements although I think some people when they get to the place of improvisation have so many inner judgments and talking going on that they're maybe outside of their bodies more than when they just get to do somebody else's movement. Different people vary. (M.I.1)

As was the case for the routine copy tasks, verbal instructions to make eye contact were used to help the students to reach out from their internal worlds. For example, one guided exploration actually had "making connection" as the theme. The students were asked to close their eyes and to make a shape
representative of how they felt, then to make a shape about how they would like to feel, finally to make a little dance between the two. Progressively the task developed toward making a dance with someone else: "Open your receptors. Be aware of each other, coming into the same web. Go to a person, get closer. If it feels OK establish contact. Bring your attention out" (M.O.1.1.6). Another way this central organizing principle was seen in the different improvisations was that they often developed from a solo to a duet to the whole group: "Feel the room, open up your duet to a whole group dance" (M.O.1.3.1). The frequent work with a partner was a way to go from an internal concentration and attention to a more external focus.

Tasks categories and variation of space and dynamism. Martha said that she was "more interested in people finding their own movement, their own style, their own rhythm than people copying her idiosyncrasies. "I don't want to make people look like Martha," she said (M.1.1). Her central organizing principles of increasing personal movement range dynamically and spatially reflected that aim. The analysis of the data showed that both improvisation and copy routine tasks provided students the opportunity to experiment with a wide array of spatial use and dynamisms.

Many routine copy tasks included work on contrasting elements of space and dynamism. For example, the prances were executed first with a light quality, then with a strong quality (M.O.1.2.12). For three days, one phrase across the floor consisted of four runs and eight jumps in opposite directions (M.O.1.2.13). Some tasks such as the "diagonal scale" consisted in a systematic experimentation with both contrasts of space and dynamism (M.O. 3.2.7). The "diagonal scale" is actually an exercise taken directly from the work of Laban
on Space and Effort affinities. The task consists of linking the Effort action of floating to punching, to gliding, to slashing, to dabbing, to wringing, to flicking, and to pressing. Those actions are performed in different directions from high right front, to deep left back, to high left front, to deep right back, to high left back, to deep right front, to high right back, and to deep left front. Many tasks in Martha's class included level changes, shifts of dynamism, and made three-dimensional demands on both the upper and lower body. Many students mentioned this as a characteristic of Martha's teaching: "Quality changes in dynamics of movement, level changes in movement, use of the spiral and the diagonal" (M.I.C). Interestingly, when asked to describe a situation in which they felt they improved their efficiency as a dancer, a student answered:

It's difficult for me to answer this question because I don't think that "efficiency" is what Martha is trying to teach. She is interested in teaching us about different ways of moving, an exploration of the possibilities of the body in dynamics and space. She didn't emphasize putting it all together, or at least not enough for me to improve my own efficiency as a dancer. (M.I.C)

Variations of space and dynamism were not only in the routine copy tasks but also encouraged through the different kinds of improvisational tasks. Actually, the routine copy tasks often got transformed into theme and variation improvisations, becoming a means of helping students to find their personal expressive ways of moving:

What I'll be teaching tomorrow is much more about improvisation. Taking the different combinations and the dynamics I've given them and have them play with the dynamics and have them play with how to use the space, so it becomes their own. (M.I.1)
In the next quote, Martha mentioned that the theme and variations improvisations were particularly suitable for helping shy students to vary their movements:

They're still shy about improvisation but when I give them movement they seem to enjoy the shift and the change. They seem to get it, but when they're looking for their own a lot of them go blank. . . . If they have a movement form they can do it with a different dynamic or if they have a dynamic they can change it to a different form. Not to be too attached. So they can begin to see that the same movement that I've been doing all along and that quality can be applied to other movements. (M.I.4)

Task categories and developmental body part relationships. The last central organizing principle, refining developmental body parts relationships, was also manifest in both the copy routine tasks and the different kinds of improvisational tasks.

Many routine copy tasks were small adaptations of specific developmental patterns from the framework of Body-Mind Centering and Bartenieff's Fundamentals. That is the case of the "spinal roll down" task, which involved spinal and homologous movement. Simply described, the "spinal roll down" began from a standing position, then a bending of the torso in a sagittal plane, then propelling the body forward initiating with the head to end up in a pushup position, then retracting the movement back to a squat and returning to standing. When repeated in turned out position, the propulsion of the body forward ended up in a prone position to add an homologous push from the lower body before coming back to a standing position. When introducing the task for the first time, Martha said to the students: "A lot of what we do in class is related to how we learned to move as babies." Referring to the homologous push from the feet, she continued:
"That's where we learned our deep pliés when we were about eight, nine months old" (M.O.1.1.5). Like the "spinal roll down," many other tasks reflected developmental principles ritualized into a specific form and performed to a given musical structure. For example, the "tango-waltz" task consisted of circling the arms and swinging the legs. "Again this is very Bartenieff," pointed out Martha, talking about the arms circling (M.I.2). Martha rarely explicitly mentioned the development component of the tasks. When she did so, it was very brief: "There is no particular shape or form, it is based on the babies' early movement. It is called the rooting reflex" (M.2.1.6).

The exploration of developmental principles was also encouraged through the improvisations. For example, one guided improvisation focused on breathing and nasal radiation. The task consisted of lying down in a prone position on the back of a partner who was in a position on the hands and knees. "Keep your belly on the back of your partner. Breathe. Connect your belly to the top of your head" (M.O.1.1.8), said Martha to bring the attention of the students to the developmental principles. A second example was a guided improvisation that had head and tail connection as the theme. The improvisation ended up in a kneeling curl position with Martha saying:

At some point come on your knees and just let your head kind of push off the floor, a little massage of the top of your head, so you feel the head and tail in a curved position, and stay there as long as you enjoy it. Gradually finding out how you can reach out with your eyes to lengthen your spine into space coming to sitting or just eyes up somehow, letting your eyes come towards me." (M.O.1.3.1)

That task is a slight adaptation of developmental work from Body-Mind Centering, based on the movement of babies. Indeed, it is based on the observation that newborn babies, when put on their belly, push against the
floor with their head, which brings the body backward or tailward. Then, the
tail initiates a spinal push and the body moves forward toward the head.
Martha's knowledge base has given her a framework for
approaching the integration of the content and pedagogy of
typical dance classes with the content and pedagogy of typical
Labananalysis and Body-Mind Centering classes. For example,
the body system explored through improvisation became
ritualized in Martha's class, whereas the prances usually
ritualized in dance classes became the object of an
improvisation. The content of dance was organized along the
lines of her knowledge base in two particular body therapies.
This is evident in the variety of tasks she presented in class.
Martha built a bridge between traditional dance content and
body therapies through instructional tasks that reflected her
central organizing principles. She has reorganized her content
of dance and body therapies in such a balanced way that her
teaching is as true to dance as body therapies. The integration
of the two bodies of knowledge resulted in an idiosyncratic
approach to the teaching of dance. The role of content
knowledge is critical in Martha's teaching. A deep
understanding of the content of Labananalysis and Body-Mind
Centering enabled her to develop a variety of instructional
tasks. In interview she credited herself for making
relationships between the content knowledge of Labananalysis
and Body-Mind Centering. Then she organized the new blending
around her central organizing principles and developed the pedagogical skills that communicated to the students what she felt important in the ending amalgam, the Body-Mind Dancing class. Martha's pedagogical content knowledge drew from disciplines peripheral to the discipline of dance, which suggests that her pedagogical content knowledge derives from a knowledge base that is broad and deep at the same time.

Communication of Instructional Tasks

In order to answer the question "How is the content made manifest through learning tasks?" the next paragraphs will focus on how Martha communicated the instructional tasks, more specifically on how her specific style of verbal instruction, visual demonstration, and tactile information reflected her central organizing principles.

Verbal communication. It has been shown that different tasks required different verbal involvement from Martha. She was very sensitive to that aspect, continually struggling to find balance between the different kinds of tasks because this affected the time devoted to the physical engagement in the tasks:

That's where my own battle with how much to keep improvisational and how much to go to the ritual is very strong because for instance when I don't set things then I have to keep talking. When we set things hopefully I can stop talking and we can go through the phrases in a beautiful way like people in Graham class. (M.I.1)

In the next quote, Martha explained how the routine copy tasks and the free improvisations, which both relied on minimal verbal instruction, though they were at each extreme on a continuum of open and closed tasks, contributed to a
situation in which the students could enjoy the execution of the tasks without being disturbed by her voice:

I want that they really get a chance to practice, practice, and practice it and do it well, or turn it into some kind of improvisation where they can do it their own way. I want them to have the satisfaction of really doing it. It's a conflict for me to introduce my voice and my suggestions. So I'm looking more and more to find ways to establish improvisations where I'm no longer guiding. That's something I'm watching. How can I drop out of the picture more? So that they can really be inside themselves and not have to reach out to hear me, straining to pay attention. Where they get all the rules in the beginning and then it just goes. And there is no voice coming in. (M.i.2)

Martha definitely did not like spending too much time on verbal instructions. Though she had a thorough knowledge of the concepts underlying the different tasks, she did not analyze them through long verbal explanations. Rather she emphasized direct physical engagement in the tasks. For example, the "fluid warmup" done at the beginning of each class was based on the body system of Body-Mind Centering. The task was composed of six different movement sequences related to six different fluids of the body. Only during the third class did she mention very briefly the rationale behind the warm-up:

What we have done so far is what I call the fluid phrase. Fluid phrase is working with the fluid in a very easy way. . . . Since it's a warm up we don't go into arterials. This is synovial joint fluid [while demonstrating the corresponding movement]. This is what we call tissue pump, getting the blood back to the heart pump, this is lymph, this is cerebro-spinal fluid through the spine, now venous flow, it means the return of the blood to the heart. (M.1.3.3)

Martha did not stress the analytical descriptions of the tasks because she was concerned with class pace. Moreover, the students had the opportunity to take her body therapy class that covered the same concept in an analytical way. She was aware, however, that the concepts presented in the class were unconventional and that the limited explanations of them were a possible
source of confusion. For example, saying to the students that the cerebrospinal fluid is the nourishment of their brain probably did not convey a literal meaning for most of them. Asked to comment, she explained:

It's just a metaphor but I figure if it goes in, it goes in, and if it doesn't, it doesn't. I don't feel like it's so horrible a statement that it will stop them from moving. If I said, "You feel ants crawling up your leg," they might stop and my goal is to keep the flow going. Keep the movement going. If they don't understand it intellectually at least they're getting an image. The way that I first learned to access the reality of it was through metaphor. When I first heard these things I went crazy too. It was real weird. I'll have to keep working on this. It was interesting because yesterday there was this woman from Bebe's class in my class and I forget that even open-minded post-modern dancers still find the language very evocative and provocative. So yeah, I'm happy if they even just use it as a metaphor. . . . Often the true metaphor, if they find it, has some kind of meaning on a physical or even an emotional level, a response to the language like poetry that then it may stimulate enough of a curiosity so that they come to question it on a physiological medical holistic level. Especially if it becomes a problem it will then be a resource for the body. It is in their memory somewhere. (M.I.3)

Movement has several levels of meaning for Martha. One of her tasks was to take the meaning in the content she teaches and to transform it into forms that the students will understand.

"Teaching," argued Gudmundsdottir (1990), "is basically about the making of meaning" (p. 11). He continued by explaining that the transformation of the teacher's private meaning into instructional representations that the students will understand is central to the concept of pedagogical content knowledge. Grossman (1990) reported studies of pedagogical content knowledge in which teachers commented on the challenges inherent in trying to understand their subject matter from the students' perspective. The same studies indicated that teachers used memories of their own experiences to help them determine
what aspect of content the students were likely to find difficult. The data on Martha is consistent with the findings of classroom research that also pointed out the danger of generalizing from personal experience. Martha came to an understanding of the multiple layers of meaning of movement through a self process. She decoded the meaning of the "weird metaphor" by herself, and assumed that the students would do the same. To rely on her own experience thus did not encourage her to develop instructional representations related to the specificity of the student's knowledge. Moreover, explaining concepts that have an esoteric character take time and Martha was more concerned about time for physical involvement in the tasks. She wanted the students engaged physically at a brisk pace. She referred to some concepts that she did not fully explain because she did not think that the Body-Mind Dancing class was the appropriate context. Those factors show why Martha did not expand her explanations. Most important, perhaps, is the fact that the students did not request clarification.

The students indeed never asked Martha to explain what she meant by the metaphors she used. In class their questions were related only to the strict configurations of the tasks in time and space. In the critical incident questionnaire, only one student mentioned the need for more comprehension:

This class should be offered in conjunction with Martha's Body Therapies class to understand the principles, or she need not be so concerned about really making it a technique class, and go more slowly explaining the principle behind the movements. (M.I.C.)
That the students did not ask her to clarify her metaphors or some more or less esoteric principles did not surprise Martha. For her this was related to a certain docile attitude among dancers:

I think basically dancers are trained to respond in a particular way. To be so good. Do this and do it... Dance classes are really about following the hierarchy of the model of the teacher. The only question to ask is a question that's going to help you to get the movement better. I think people really follow that code... In the body therapies class it's basically the same concepts and they're asking all these things and making connections to their life. I think the same is going on in the morning class but it's a respect toward the form and we're in a dance class and we don't ask these questions. (M.I.2)

Martha's statement echoes Stinson, Blumenfeld-Jones, and Van Dyke (1988), who showed that young women dancers perceived the dance community as composed of a hierarchy created and controlled by others. They argued that students interact with the authoritative figures of the teachers according to a model of mother and daughter at the prepubescent stage of development, that is, the students obediently do what they are told and fit into the structures created by authoritarian figures without questioning them. Martha did not encourage students to perceive her as an authoritarian figure. She created a learning environment that allowed for freedom of thinking. Students were invited to explore ideas and she was available to discuss them. However, despite that, students did not ask for clarification of material, nor engage in discussion that could have raised different points of view about the material. Although it is likely that the students needed clarification for some aspect of the content, they did not initiate a dialogue on
that level. Since student understanding is one motivation for the teacher to transform content knowledge into pedagogical content knowledge, investigating how the students comprehend the instructional representations of their teachers is a question for further research.

Besides using this kind of "weird metaphor," to use Martha's own term, Martha used images more readily accessible to the students' understanding. Their purpose was mainly to carry the intention of the movement. For example, she asked the students to do the "spinal roll down" task, with curiosity, then with avoidance. Asked to comment, she answered:

Just to give them a motivation. Dynamics come usually from some kind of emotional image so I thought well what are some of the dynamics or the images? Some of the images that go with that indirectness that I'm looking for. One would be I'm being very curious and the other would be I don't want somebody to see me. So it's just to give them some images. (M.I.4)

Actually, Martha had many strategies to help the students have intentionality in their movements. For example, in the fluid warmup, a movement consisted of a direct, strong gesture of the arms extended. Martha always asked the students to accompany the movement with an assertive sound: "AH!." One day, observing that the vocals of the students were especially weak, she exclaimed, "Get in their way," to invite the students to block each others' paths. The way she commented on the incident reflects her belief that movements convey psychological intentions that she related to physiological function:

Because the lymph is the fluid that carries antibodies for defending against viruses so the image is if you can defend yourself, if you have the intention to defend yourself you stimulate your lymph. Or if you stimulate your lymph you have to defend yourself. You can see the people in the room that are struggling with this. Today I found out one
of them was sexually abused and I could have predicted it from a couple
days ago by her inability to create her own boundaries. (M.I.2).

That leads me to address the topic of vocalization, an important characteristic
of Martha's teaching, which clearly reflected her three central organizing
principles:

The basic premise of that is very much a part of the Bartenieff and the
Body-Mind Centering work, which is that through vocalization we
attune with our breath more. And so by being able to be clear vocally
we know that we're getting into particular breath rhythms. Then last
week when I was working with space I used the voice work also to help
reinforce shape change because the shape changes in our mouth or the
vowel sounds a, e, o are precursors from the beginning of learning.
Every child learns to make mouth changes even before they learn to
make body changes. So the idea is if they can clarify vocally those
sounds then it can help them make whole body shape changes. The
same thing this week, if they can get voice changes that are dynamic it
will help their movement be more dynamic. The other way the voice
work can be used is as a way to just connect the group more. . . . Many of
us, myself included, hold our breath when we are learning and yet we
all know that the body best coordinates its movement when there's the
internal movement of the diaphragm and the muscles of respiration. So
by coordinating with that breath rhythm we also make our movement
more efficient. (M.I.4)

Vocalization served many purposes. For some tasks, such as the "fluid warm-
up" and the "diagonal scale," Martha explicitly asked the students to make
sounds:

I push them, especially in the warm-up of the beginning of class. I
hate to be really assertive. I want them to do what they need. I was sad
that the voices weren't more resonant and active but they were all
doing their best. . . . People really split their vocalization and their
dancing, two separate things. So I feel like they're making progress
with this whole idea but it's at such an elementary level. The main
thing is I guess I'm not shy to be off key and they're really shy. (M.I.4)

Other times, Martha simply induced vocalization by vocalizing herself. The
improvisations, for example, were always done with off and on vocalizations.

Martha was very expressive with her voice. When teaching the routine copy
tasks, she usually sonorized with onomatopoeias in addition to using descriptive words and musical cues:

It's a yah tah stretch, and release stretch stretch, whole circle around, and again two three, its a release tah wouah ahhhh, yah sah stretch, reverse yah tsa tsa, lifting up, circle around, tah yah tsa tsa. (M.O.1.1.3)

A final characteristic of Martha's verbal communication when teaching was her frequent expressions, such as "How do you feel? How do you want to feel today?" When asked to explain her motivation for this, she said:

For them to be brave enough to let their bodies express what's in their minds, to reveal their emotions rather than holding it back. To be more aware of what message they're putting out. (M.I.1)

Martha's central organizing principle moving from within out is explicit in this short quote. For Martha, technical skills must serve communication. In dance literature, a distinction is often made between virtuosity (sheer bodily skill) and authenticity (involvement and inner truth). In Martha's class, virtuosity is the lower priority. In her classes, she developed movement efficiency while encouraging individuality at the same time. One day she provided positive feedback to the students performing a routine copy task that should have looked in unison to an outside observer, but the students were not in synchronicity. To hear a teacher complimenting students performing a unison task with many individual variations could surprise visitors used to a certain homogeneity of execution in a typical dance technical class. Asked to comment, she answered:

I think my biggest criteria is probably that there's a level of true involvement, that they've let go and they've just given it who they are. Their intention is behind what they're doing. I can see that somehow they're investing some quality or some approach to the space that seems like it's got a flow because they're doing it. They're not inhibiting their own flow of energy. So that's a major one for me. (M.I.3)
Martha's central organizing principles are thus closely linked. Moving from within outward made her accept a wide range of responses. Martha's teaching is consistent with Richards (1986), who claimed that:

The important aspect which appears to have been neglected is the dancer's "authentic self" resulting in performances that are empty and meaningless, the dancer believing that the acquisition of technique is the only thing that will make them a successful professional artist. As mentioned before whilst it is an aspect of performance it has to be balanced. Teachers as well as choreographers need to nurture the individual, instead of making dancers leave their "selves" in the changing room along with their street clothes. (p.291)

Visual demonstration. Martha's verbal communication was typically accompanied by demonstration. She was aware of the trade-off between verbal and visual forms of communication particularly in relation to her central organizing principle, increasing movement range spatially and dynamically:

There are different ways to include variations. One is to just say copy me and I'm going to vary it: "Just follow along." Another is to stop and give a verbal instruction that prepares them for the improvisation. So there's always that trade-off. (M.1.4)

This quote highlights a characteristic of Martha's teaching. She tended to guide the tasks through demonstration. To follow along, Martha believed, can help the students to find their own movement style:

I never demonstrated that phrase [a phrase in the fluid warmup] in a way where they just watched me. From the very beginning they just joined in and that was an intention that I had because I didn't want them to copy me. I wanted them to feel their own flow. (M.1.2)

She also had other motivations for doing the tasks herself:

There are certain choices that I haven't totally decided on in advance, places for openness for different kinds of transitions. It gives me the bodily sense of what should come next so that's one reason. The other is
I just enjoy it. It's also because sometimes I want them to not feel watched so if I'm participating they're experiencing my energy as part of the group rather than an observing eye. Especially in the warm-up section I don't really mind what shape or exactly where a leg is and what count they're on. (M.I.4)

Additional interpretations may be provided to understand why Martha valued the "following along" mode of communication. The observation of the students' difficulty in executing the tasks in addition to the numerous requests for clarification may support the claim that the students needed her support not only verbally but also in a motor sense. Providing a demonstration and including unstated variations may also be related to her inability to adhere to the routine copy tasks established:

I used to be a good technician in the sense of never great with balance or pointed feet or anything like that but in terms of memory, I was quick, I learned, and I remembered. But for some reason as a teacher, maybe because I'm so busy watching I sometimes cannot keep track of them in a phrase. So that's why there're variations. I'm just not able to keep track of it. (M.I.1)

Engaging herself physically in the execution of the tasks did not prevent Martha from monitoring the class and giving feedback to the students. Often she performed the task mirroring the students, so she could see them while performing the different tasks herself. Actually, in the course evaluation questionnaire of the Bates Dance Festival, most students mentioned that they got as much personal attention as they wanted. A single case of dissatisfaction was found: "I love her enthusiasm and energy, but I would have liked her to spend more time watching and commenting rather than doing most of it with us" (M.I.C).

Martha believed that it is important for the students to experiment with improvisational tasks in which they could explore aspects of movements more freely without subjecting
themselves to the limiting aspects that routine copy tasks conveyed. According to Barker (1988), teachers who use improvisation must help the students to carry over what is achieved in improvisation into technique and vice versa. On that matter Martha often provided cues to help the students to make the connection from the improvisations to the routine copy tasks by instructions such as, "See if that momentum can bring you into relevé" (M.O.3.4.2), and from the routine copy tasks to the improvisations by instructions such as, "See if you can use what we have just done on your own" (M.O.2.5.4).

Another caution about improvisation was suggested by Arnold (1986). "The point about naturalistic expression," he wrote, "is that it is often symptomatic of a particular state or feeling and free of deliberate teaching" (p. 260). To him the fallacy of improvisation sometimes lies in the teacher's withdrawal from the teaching situation. Talking about the free improvisation, Martha mentioned her wish to get out of the picture. However, she mentioned the importance of establishing good structure for the improvisations at the outset. Setting up improvisation requires great skill in providing a structure that leaves sufficient room, but at the same time focuses and directs the work of the student beyond clichéd responses. In my view, if Martha had presented only free improvisations there would have been a danger of the students remaining at the comfortable level of the familiar. However, Martha presented
three kinds of improvisational tasks that challenged the students in different ways. She had a different kind of input in the theme and variation, guided and free improvisations, which suggests that her use of improvisation didn't reflect an escape from teaching and probably challenged both the less skilled and the ablest students.

I have emphasized Martha's tendency to guide visually the unfolding of the tasks as the students executed them, which does not mean that she did not provide demonstrations that the students had to watch and then perform on their own. She did and on that matter said: "I like to look as clear as possible" (M.I.4). With the exception of the presentation of new tasks, however, Martha often marked the combinations, i.e., she did not fully execute all the parts of the combination. To sketch the combinations as a reminder is a common practice in dance when the same combinations are repeated from one class to another. Sometimes her own technical insecurity prevented her from fully demonstrating a task in front of the group. On the one hand, Martha didn't like to show her technical weaknesses and that sometimes prevented her from fully demonstrating tasks. On the other hand, she sometimes deliberately showed her technical limitations to convey the message to the students that learning is a process shared by everybody:

I have mixed feelings about my own vulnerability, about my instability and demonstrating those kinds of things. Some days I will do something smaller and not take the risk and attempt to do it really precisely. Other days I think oh it doesn't matter if they see me falling off balance. They know it just means I struggle the same way they do. So depending on my own level of confidence, I'll have an emotional reaction to my own balance and my own functioning, demonstrating to them how I should be doing it perfectly. (M.I.4)
Tactile communication. Besides providing tactile information to individual students at several occasions here and there throughout the class, Martha created specific situations for this purpose. She often allowed a few minutes for people to work by themselves or with a partner on specific aspects of a task and used this time to provide tactile feedback to individuals:

There is reaching through my toes. So for you I think you are just really used to having your ribs fall forward (while giving hands on to the students). That's a new place for you, go into length, feel your length. You have the tendency to hang out here and this is a slightly different place, where the hip is forwards and the ribs are back, just enjoy that feeling and see what movement comes from there. Yes. It's a pull and rotation (manipulating the heel of the student). If you're here, you feel the heel externally rotate and pull down. You want to go toward the floor as soon as possible and rotate and lengthen and let the hip adjust finding how it unfolds. Do it again. Did you see this little bulging in your ribs right when you started? See if you can move all the surface at the same time. This is for everybody. We each have a place we want to roll on to our side from. Try to roll this whole surface at the same time. (M.O.1.4.2)

In traditional dance class, the main mode of communication consists of visual demonstration (Pujade-Renaud, 1976). In the body therapies, verbal and tactile forms of communication are favored. Martha's teaching included extensive teacher-paced practice with verbal and visual cuing. Moreover, her teaching included self-paced practice, which is uncommon in dance classes. Actually, the non-group-supervised practice was the occasion to receive hands-on from Martha in addition to exchange tactile information with a partner. Tactile feedback was one of the most frequently cited characteristics of corrective feedback perceived to be effective by experienced modern dancers (Fortin, 1988). The same study revealed that
when more than one mode of communication was used to transmit the corrections, the chances of comprehending were increased. The question of individual preferences also supports the claim for relying on different forms of communication. According to Vester (1984), just as some individuals prove to be sensitive to metaphorical imagery, so others may have preferences for the visual or the kinesthetic.

**Summary**

Martha's central organizing principles were manifested in class by a variety of instructional tasks, ranging from closed-ended routine copy tasks to free improvisation, and by different forms of communication, particularly an extensive use of vocalization and a concern for tactile information. Improvisation, voice, and touching were components of the class that reflected Martha's central organizing principles but also probably contributed to the different perceptions of the students about the technical aspects of the class. For one student the class was definitely a technical class: "It sounded like a good way to relax and get technique at the same time. I think a lot of people were not aware that this would be a true technique class (M.C.E.). Another reacted differently: "I think Martha could have spent a lot more time working on technical work, traditional skills, turnout, alignment. I also feel we did a lot of movement in an inarticulate manner" (M.C.E.). As far as Martha was concerned, her class was a technical class though atypical: "It's different than most technique classes because we look at each other. We help each other. We
partner with each other" (M.I.3). On a few occasions she mentioned the pressure to conform to the typical model of a dance class: "In terms of still fitting the model of a dance class it is important to do some kind of complex sequence, to finish with a sense of dancing" (M.I.2).

What Is the Pattern of Tasks within and between Lessons?

In this section, the question "what are Martha's teaching practices" will be analyzed using data on task patterns within and between lessons.

Patterns of Tasks within a Lesson

In Martha's teaching, a task was easily identifiable by its focus on a movement concept and a particular rhythmic structure. Each class included about 15 tasks that lasted an average of seven minutes, varying from one minute to 23 minutes. Because the tasks aimed at different goals, they were grouped together into different phases:

I have six or seven phases in the class. I can change this model but the general model is first improvisation. I like the person to have a connection to themselves first and then to make connections to the whole room, the space and the people. So that would be phase 1. Exploration of self and relationship to others. In that I'll often introduce a concept. The next thing is some sort of warm-up really to get blood to all the parts of the body. What I've been doing in this class has been standing working with the fluid rhythms. Then usually I do floor work. Floor work is literally lying on the floor and that's where it seems good to do a lot of strength training. I'll do work with abdominals and I'll focus in on different body parts. We'll make sure the upper body gets some work, the legs get some work and the connection through the center gets some work. Traditionally it's also a place where I want people to begin to free their flow and feel weight to the floor. Then it's very important for me to do a level change. I'll clearly do certain things on the sitting level for coordination and from sitting to
standing to really learn about the transition. What's different from another modern class is that again I really focus on the transitions. So there's always a level change phrase. That comes very much out of Bartenieff to emphasize level. Then standing work to establish upright. I do foot work and weight shift. Footwork is traditional. Working on weight shifts in all directions is very much from Bartenieff. Then across the floor work. Somewhere in the class I want to challenge their coordination with a longer phrase. In this group I've usually been doing a long phrase across the floor. Occasionally I would do more of a long adagio phrase, a center phrase. But just somewhere in there I want them to really learn a long sequence so that they can then feel the rhythm, the flow. Within that learning of a longer phase I usually have a component that says how do they make that their own. And the final phase, stretching, that has often been short shrifted. (M.I.2)

Martha's description of the unfolding of the classes was consistent with observational data. In the next paragraphs, I will present the duration of each phase and the average number of tasks included in each phase, in addition to providing few examples of tasks for each phase.

The first phase, the improvisation, lasted an average of nine minutes. It included individual or group improvisation on movement concepts such as head and tail (M.O.1.3.1), body half (M.O.1.4.1), directions and dimensions of space (M.O.2.1.1), and spatial relationships (M.O.2.3.1). The second phase, the warm-up, lasted an average of 10 minutes, varying from four minutes to 20 minutes. The warm-up was based on the different qualities of the fluids of the body and was composed of six subtasks. I combine Martha's third and fourth phase, the floor work and the level change work, into a single third phases since they often overlapped. This phase lasted an average of 50 minutes and was composed of about eight tasks, such as the "abdominals," the "tango-waltz," and the "spinal roll down." The fourth phase, the standing work, lasted an average of 14 minutes and included from two to five tasks such as the tendu, passé, and battement. The fifth phase, the work across the floor, lasted an average of 15 minutes and often consisted of the combination into a single long
phrase of tasks done earlier in the lesson. Martha, as I already mentioned, planned the progression of her class keeping in mind the final combination of the class done across the floor. Finally, the stretching phase had an average duration of three minutes and consisted of different common stretching tasks. The stretching phase however had a particularity. It was the occasion for Martha to ask the students to provide feedback about the class:

There's so many things I would be interested to know about their experiences. I hope we'll do more talking at the end of the class. I really like that because it helps build the group and it also is useful for them to hear each other and just to know that if they felt strange that someone might have felt stranger. (M.1.2)

Before turning to the patterns of tasks between lessons, I will address how Martha smoothly linked the tasks of these different phases. All classes started in a circle with either the improvisation or occasionally the fluid warm-up. Asked to comment on this procedure, she answered: "It comes out of the philosophy of the Body-Mind Centering as a way of being communal" (M.1.1). She also mentioned that the circle was favored to avoid looking in the mirror, which to her prevents the students from connecting with their kinesthetic sensations. The circle was then smoothly broken in quincunx, and, for almost each task the students were invited to face different spatial directions. The changes of orientation were executed easily. Since Martha was often engaged physically in the actual doing of the tasks, the transition often simply consisted of following her. When time came to make a transition between an improvisation and a ritualized task, Martha had a repertoire of effective verbal instructions such as: "Make your way to the floor at some point" (M.O.1.3.1), "next time stay down when you get there and let your eyes come toward me" (M.O.1.1.1), "gradually move toward me, finding an ending" (M.2.1.1).
Patterns of Tasks between Lessons

I have already mentioned that each week a different theme was explored: the body, space, and dynamics for the first, second, and third week respectively. Throughout the Festival, many tasks were repeated with a different focus corresponding to the theme of the week or subtheme of the day. For example, during the first week the warm-up was repeated one day with an emphasis on the head/tail relationship. Another day, it was done with an emphasis on shapes:

We want to get to know each other and make connections and we choose to work with shape as a way to make connections. Shape was the theme. I used that even in the warm-up so we have the same warm-up but I analyzed the warm-up in terms of shape. (M.I.1)

Sometimes the subtheme of the day was planned. Other times, it emerged from the group:

I thought I could really stress weight one day and time another day, and I just decided I wanted to be freer than that. I'm just seeing what comes. So yesterday was more a little bit of everything. They ended up being more about strength and tension. It's like a theme emerging from the group. (M.I.2)

Though most of the tasks within a class consisted of known material, each day between two and five new tasks were introduced. Asked how she decided to include new material, she answered:

There is a place for ritual and there is a place for new information. New work is first to introduce new themes to cover the material; second, to challenge and stimulate just for the excitement. M.I.2

A last change from one week to another was that tasks got longer with the addition of known material.
Summary

Establishing and maintaining routines is an important part of creating a learning environment (Doyle, 1986) and a mark of expertise (Berliner, 1988). According to Brophy and Good (1986), students' learning opportunities are related to the teachers' ability to organize the classroom as an efficient learning environment where tasks run smoothly, transitions are brief and orderly, and little time is spent getting organized. In Martha's class flexible class patterns insured an ongoing flow of the lessons and optimized the time on task, which is one aspect of the research on teaching effectiveness most frequently related to learning gains. Martha showed herself to be a successful classroom manager with quick efficient transitions between the numerous tasks of the different phases of the lesson. Kounin (1970) examined how teachers who managed classrooms successfully had what he called movement management. Smoothness, the absence of stops in a lesson, and momentum, the pacing of a lesson, correlated with managerial success. Martha demonstrated the capacity to manage her class smoothly and with a good pace. She had the capacity to monitor the entire class, what Kounin referred to as 'withitness,' and the capacity to engage in many tasks at the same time, Kounin's concept of "overlapping."

Synthesis of the Findings and Discussion

This part of the chapter examined Martha's teaching practice. The data showed that Martha did not struggle with pedagogical knowledge, the same
way the previous part of the chapter revealed that she did not have a problem with content knowledge. However, a quest to understand pedagogical content knowledge is made complex by the interaction and integration between all of the teacher's knowledge bases and the particular students in a given context. A factor influencing the dynamic of the teaching/learning situation was the students' expectations for a technical class. Some students were confused about what the class was about: "At first, I had trouble understanding exactly what the class was about, but I definitely reached an understanding and I was more than satisfied with the course" (M.C.E.). The students' confusion was partially related to their expectations for a traditional technical class. Martha did not teach a typical technical dance class. Her use of improvisation, touch, voice, unfamiliar task content, including a strong emphasis on level change and dynamics shift, were all elements that may have been confusing for the students. Another source of confusion was in her attempt to develop and refine a personal approach to teaching, when unclear instructions sometimes arose, breaking the general effective management and the positive climate. Room for personal interpretation of the stated tasks reflected her central organizing principles, mainly the moving from the inside out. However, the degree of openness of the tasks got confused with the degree of clarity of the stated tasks. Studies in the teaching of movement classes have shown the importance of establishing congruence between the stated task, the one described by the teacher, and the actual task, the student behavior in response to the stated task (Tousignant & Siedentop, 1983). The stated task, whether it is a routine copy task or any kind of improvisational task may be stated with clarity. The lack of clarity of the stated tasks does not appear to be related to
Martha's central organizing principles, as Martha suggested in interview, but rather reflected her self-absorption and vulnerability in the material taught. Martha was generous and passionate about her teaching. She often provided demonstrations that became an element that detracted from clarity since she spontaneously included variations without giving previous notice to the students. Those variations sometimes reflected her level of technical and musical skills. On occasion Martha just followed her own pleasure as a mover. Martha reported that she had difficulty with the routine copy tasks and she enjoyed improvisation. She also mentioned that the students were craving for improvisation. Consequently, that belief perhaps encouraged her to switch from one kind of instructional task to another one without notifying the students, thus creating confusion for them.

Chapter Conclusion and Implications

Martha's central organizing principles were governed by an overarching framework, her conception of the discipline of dance. Her presentation of different instructional tasks was related to her conception of dance and dance technique, which actually brought together two poles often dichotomized. The history of dance education is to take wide swings between alternatives and to use an either/or mentality between emphases. One way to dichotomize is to oppose sheer physical skills to freedom of expression and individuality. On the one hand, dance teachers who embrace a "free expressionist" philosophy tend to reject the systematic development of skills movement arguing that it inhibited or distorted freedom of creativity and self-
expression (Arnold, 1986). On the other hand, while it is likely that the teachers who advocate a movement efficiency approach will not deny the important aspect of expressiveness and individuality, their teaching of technical skills remains at the level of the biomechanical (Berardi, 1991). The data from this study revealed that Martha tried to embrace both aspects in her classes, the expressive and the efficiency component. For Martha, a technical dance class was a place to develop not only technical skill proficiency but also a place where the individual life of the students could be enriched by exploring movements as a source of meaning to be expressed and communicated. That conception of dance technique had direct influence on her teaching practices. Grossman (1990) claimed that how teachers conduct instruction reflects a vision of what it means to teach a particular subject matter. Martha indeed presented different kinds of instructional tasks from prescribed ritualized to free improvisation to permit the emergence of both emphases.

Describing Martha's teaching practice as a struggle for a balance between expressiveness and skill proficiency, however, provides only a partial answer. The puzzle is richer. To Martha, individual expression is fostered by systematic exploration of the structure of movement of Laban analysis and by the capacity to actualize the expressive qualities of different body systems of Body-Mind Centering. Anchored in the conceptual framework of two body therapies, Martha made a claim for a teaching that prevented to a certain extent the imposition of her own individual movement idiosyncracies. Movement efficiency can also be developed by avoiding the imposition of an external aesthetic style. To Martha, movement efficiency is
gained through the integration of sensori-motor developmental phases also
anchored in the work of Labananalysis and Body-Mind Centering.
Developmental work aims at increasing movement skills but its final purpose
is to optimize the expressive potential of each dancer. In that regard, Martha
followed Hayes's (1980) caution. To Hayes the fundamental role of movement is
to prepare for dancing. The development of movement efficiency, whatever
the conceptual framework adopted, should be a "means to an end and that end
is dancing" (p. 17).

On a last note, it is important to reiterate that this study examines the
pedagogical content knowledge of Martha, that is, the transformation and
representation of her content knowledge. Examining the validity of her
content knowledge itself goes beyond the scope of this study. There is little
critical literature about the body therapies but it is likely that some aspects of
Martha's content knowledge drawn from the Body-Mind Centering in
particular, would engender concerns of validity from fields such as
neurophysiology, kinesiology, and human development. My stance in this
study was not to be critical of Martha's content knowledge but rather to look at
its transformation into pedagogical content knowledge. On that matter Martha
showed skill. Therefore, to say that Martha had pedagogical content
knowledge is not a statement about the validity of her content knowledge
itself. It is clear, however, that I do not deny that the value of pedagogical
content knowledge is related to the validity of content knowledge. Hopefully,
the issue of validity of content knowledge will attract the interest of
researchers and will lead to a critical literature that will serve the
development of the understanding of pedagogical content knowledge in dance.
CHAPTER VI

CONCLUSION

The first section of this conclusion will present a cross-case discussion emphasizing the major findings of the study. The second part of the chapter will deal with recommendations for further research on pedagogical content knowledge. Finally, the third part will outline methodological issues raised by the study.

Cross-Case Discussion

In addressing the questions originally posed, it becomes clear that Glenna's and Martha's cases present many similarities. I will first point out the similarities in their biographies. Then I will summarize the findings related to the two research questions that guided this study: "What do Glenna and Martha know and believe about the teaching of modern dance?" "What are the teaching practices exhibited by Glenna and Martha?"

The biographical profiles revealed that Glenna and Martha both have had an early and rich exposure to dance. Besides their background in dance, both studied a combination of body therapies, which helped them to overcome some physical limitations. Whereas typical dance teachers have been self-taught in principles of human structure and movement, Glenna and Martha have also been through formal study of movement sciences.
That makes them atypical dance teachers. In addition to that, neither had ever performed in an outstanding professional dance company, which is one of the strongest credentials commonly accepted among the members of the dance community. A last common element is that both went through a dance teacher education program, though neither mentioned that experience as having a significant impact on her development as a teacher. In short, Glenna's and Martha's biographies are similar in that both are on the "fringes" of the traditional dance teaching community.

Turning to the research question about their knowledge and beliefs, we can now see that their individual paths allowed them to build a highly personal knowledge base. Both Glenna and Martha showed a well-organized body of knowledge, and each claimed that her course, resulting from the blending of dance and different subject matters peripheral to the discipline of dance, was her own invention. They were not taught to organize their content knowledge the way they did. Though Martha relied partially on her apprenticeship of observation for specific aspects of her teaching, her class was nevertheless an original product of her personal work to integrate different subject matters. In these two cases, pedagogical content knowledge is highly idiosyncratic. The numerous personal references made by Glenna and Martha demonstrated how events from their personal histories were recalled and brought to bear on the teaching situations they encountered. Glenna's and Martha's knowledge and beliefs about dance teaching were deeply rooted in their own biographies.

A common belief shared by Glenna and Martha was the importance of offering a styleless technical class, or at least their attempt in their teaching
to reduce the conformity to a conventionalized style. Interestingly, the rejection of external control of the body and a movement aesthetic are tenets that have contributed to the coming of modern dance and still shape the development of the new dance. A similar stance has never really found its counterpart in the realm of dance teaching. Dance teaching has remained faithful to a tradition characterized by the expert authority of the teachers on the body and movement aesthetic of the students (Gray, 1989). In this line of thought, one of the subtexts of Glenna's and Martha's case studies, in my view, has to do with the notion of empowerment as described in the literature on critical pedagogy (Ellsworth, 1989). Glenna's and Martha's teaching was counter-hegemonic. They did not want to be confined by the dance tradition. They wanted to pursue their own paths free of external aesthetic constraint. Their desire for a mutation in the way dance technique is taught, however, was partially constrained by pressures within the dance community. Both mentioned explicitly that they felt external pressure to conform to what is expected from a traditional technical class. Perhaps also related to the counter-hegemonic character of their teaching, their classes were not very popular in terms of number of students compared to the other classes within the Dance Festivals. Despite that, both pursued with determination the actualization of their vision of what dance teaching might be rather than what is currently in most situations. They were aware of the pioneer aspect of their contribution.

Both Glenna and Martha were engaged in a process of empowerment in terms of personal bodily authority through self-education. Each had a private studio in her house and each engaged in a process of gaining
knowledge about her own body and validating it through heuristic experimentation and personal study of functional anatomy. They invited the students to do the same. Glenna and Martha shared the belief that dance learning is best accomplished when students are active participants in learning rather than passive recipients of knowledge. Critics of dance education increasingly call into question whether dance students are being helped to become dancers who can take responsibility of their own bodies and deal with the changing demands of their profession (Gray, 1990; Lapointe-Crump, 1990; Hanstein, 1990; Brooks Schimtz, 1990). Glenna encouraged students to adapt the different tasks to their body types and to pace themselves according to their kinesthetic sensations. Martha also invited the students to perform the movements their own way, acknowledging the emotional component of the dance experience. Though differently, both Glenna and Martha wanted their students to become active learners in the class and both believed in the principle of mutuality within the teaching/learning interaction, e.g., they wanted to benefit from the class as well as the students. Such mutuality reflected Ellsworth's (1989) notion that empowerment can lead the teachers to redefine themselves as learners. The personal growth of the teachers can, however, be in conflict with the students' growth. Both Glenna and Martha struggled to find an equitable balance between their own fulfillment and student needs. Both faced the implications of giving personal bodily authority in technical dance classes, which are usually informed by a delineated tradition.

An important issue related to Glenna's and Martha's knowledge and beliefs concerns their general conception of dance and more particularly
their philosophical stance about the nature of the body. Martha and Glenna came to develop different approaches to teaching in reaction to their similar observations that the usual technical dance class failed to address components needed by the dancers to perform expressively, efficiently, and safely. Both believed that traditional training does not adequately prepare students for the multiple choreographic demands facing today's dancer. For Glenna, the situation may be improved by gaining knowledge of functional anatomy and enhancing one's own kinesthetic sensation; for Martha, by reconciling the expressive component of dance with the strict physical components, which benefit from being based on a physiological knowledge, developmental principles, and movement structure analysis. Reflected in their central organizing principles are fundamentally different assumptions about the nature of the body. Glenna addressed mainly the physical, the musculo-skeletal aspect of the animate machine that is the human body whereas Martha focused mainly on the emotional, psychological, and spiritual aspects. In their own ways, they conveyed to their students the message that there are many ways to approach technical work in dance.

The second research question, concerning the teaching practice exhibited by Glenna and Martha, also presents many similarities for a cross-case discussion. Both represented their content knowledge through a series of tasks related in a purposeful way. Both were able to explain what content was manifested within the tasks and why the content was important. On that matter I would again suggest that Glenna and Martha were atypical dance teachers. Dance education has typically emphasized a specific aspect of the
content knowledge of the discipline: the "what to do," the actual execution of the physical dance skills required by the practicing professionals, what I refer to as the practical content. Glenna and Martha showed not only the capacity to demonstrate the spatial and temporal configuration of the movements but also the capacity to identify the principles and to explain the goals of the movements presented, what I refer to as conceptual content knowledge, the "how" and the "why" it is worthwhile to execute a given task in a particular way. Both Glenna and Martha demonstrated a broad knowledge base composed of practical content knowledge and conceptual content knowledge. Martha's and Glenna's cases support the findings of the research on pedagogical content knowledge that a solid foundation of pedagogical content knowledge requires both a deep and broad content knowledge (Hashweh, 1987).

Having proficient content knowledge background is a necessary but not sufficient condition for having pedagogical content knowledge. Glenna and Martha had the capacity to expertly transform their content in a variety of instructional representations. A wide repertoire of instructional representations is a central feature of pedagogical content knowledge since it allows for adaptation to different learners and teaching situations. My guess is that Glenna's and Martha's conceptual content knowledge, informed mainly by body therapies and movement sciences, helped them to develop a wide repertoire of instructional representations. They had abstract theory that could be applied to a variety of situations. They were able to generate metaphors, alternative explanations, and clarification of the same principles. On that point, McDiarmid, Ball, and Anderson (1989) suggested
that "teachers need to develop an appropriate repertoire of representations for the subjects they teach; they also need to develop standards by which they can evaluate the appropriateness of subject matter representation" (p. 198). These authors, however, recognized the difficulties of such projects because "it demands a much deeper and more critical understanding of subject matter than needed simply to tell pupils what they ought to do" (p. 199). Even though the appropriateness of the instructional representations has not been addressed in this case study, it seems reasonable to suggest that the development of a deep and broad content knowledge, which included practical content knowledge as well as conceptual content knowledge, positively influenced the pedagogical content knowledge of Glenna and Martha.

Beside having a proficient knowledge base, I would suggest that the wide repertoire of instructional representations of Martha and Glenna was related to their teaching experience. Glenna and Martha were free-lance teachers who developed instructional representations over time as a result of experience in many different settings. As free-lancers they had many occasions to tailor the representation of their content knowledge to different groups of students. Berliner (1988) in his studies of expertise showed that experience was an important factor leading to the ability to tailor instruction to those specific students the teachers teach. In brief, Glenna's and Martha's cases revealed that teaching can be understood and enacted from different orientations, which derive from a proficient knowledge base and from accumulated wisdom of practice, wisdom that has emerged during experience with many students in many settings.
The data related to the teaching practices of Glenna and Martha also showed that both proved to be effective teachers in terms of the main findings of the research of teacher effectiveness. For example, both had flexible routines and were concerned with active learning time, which is one of the most conclusive findings related to student achievement. Glenna and Martha demonstrated many hallmarks of effective teachers in terms of classroom management but also in regard to the creation of effective classroom climate. Glenna's classroom climate was neutral whereas Martha's was generally positive. The research on teaching effectiveness showed that a positive as well as a neutral climate characterized effective classroom environments.

On a final note, neither Glenna and Martha were "typical" teachers, nor teaching "typical" courses. The point of this cross-case discussion is not to generalize the findings to other teachers. As Shulman (1983) suggested, case studies can contribute to "images of the possible" (p. 495). Glenna's and Martha's cases provided two images of the possible, a specific instance in which a knowledge base composed of not only practical content knowledge but also conceptual content knowledge made a difference in challenging the status quo of dance teaching.

Directions for Future Research

These two case studies were an initial attempt to investigate the pedagogical content knowledge of experienced dance teachers. They were only exploratory and certainly highlighted the importance of gathering
more information about pedagogical content knowledge in dance. In this section, I will address how that might be done. I will offer a series of possibilities, that seem reasonable given what we know so far about pedagogical content knowledge in academic disciplines and the specific findings of this study.

1. In the educational literature, more studies on pedagogical content knowledge of beginning teachers have been conducted (Grossman, Wilson, & Shulman, 1989) and fewer on experienced teachers (Gudmundsdottir, 1990). The findings revealed important contrasts as a result of teaching experience. Consequently, this study could be replicated using beginning teachers rather than experienced dance teachers to assess the exact nature of changes in pedagogical content knowledge in dance as a result of teaching experience.

2. I have described how Gienna and Martha were "atypical" dance teachers. Neither had danced extensively in professional dance companies. Also, each went through formal study of movement science. That provided them with a specific knowledge base encompassing both practical content knowledge and conceptual content knowledge. The assessment of the relationship between types of content knowledge and the degree of pedagogical content knowledge of dance I believe holds promise for future research. More specifically, the research on pedagogical content knowledge conducted in academic disciplines and in physical education showed that depth and breadth of the content knowledge of the teachers influence their pedagogical content knowledge (Rosenberg, 1990; Wilson, 1988). The same study could therefore be replicated with what Shulman (1987) called
"content specialist," e.g., dance teachers who have extensive professional backgrounds within dance companies and who are likely to rely more on practical content knowledge than on conceptual content knowledge. In other words, how does the pedagogical content knowledge of typical dance teachers differ from the pedagogical content knowledge of the atypical teachers selected for this study?

3. Glenna and Martha were two free-lance teachers who presumably transformed their content knowledge to fit the understanding of the specific students of the festival in which they were teaching. However, one may wonder to what extent the instructional representations would differ when teaching different students in different settings. To what extent do the specific characteristics of the students really influence the transformational process of the teacher's content knowledge? Surprisingly, research on that specific aspect of pedagogical content knowledge has not been conducted so far in the educational literature, because of pragmatic reasons, I suspect. In the context of dance teaching, the investigation of teachers' instructional representations in different settings and with different students would bring valuable knowledge on how this transformational process of content knowledge occurs.

4. Much research on pedagogical content knowledge has focused on representations of delineated elements of content knowledge. For example, Wilson (1988) isolated the Great Depression from the large field of history. To isolate specific elements of content knowledge in dance and to investigate the instructional representations of different teachers would also bring
valuable knowledge on the transformational process of content knowledge into pedagogical content knowledge.

5. McDiarmid, Ball, and Anderson (1988) suggested four criteria to judge the appropriateness of instructional representations. One of them is that good instructional representations should be comprehensible to the particular students one is teaching. To investigate the appropriateness of the instructional representations from the perspective of students' understanding is another promising avenue of research not investigated yet in the literature on pedagogical content knowledge. More specifically, in the context of dance, I would suggest the investigation of the students' understanding of the metaphors used by the teachers. Metaphors were instructional representations frequently used by both Glenna and Martha, but the investigation of the appropriateness of the metaphors were beyond the scope of this study.

Methodological Issues

In addition to specific directions of research for further investigations of pedagogical content knowledge of dance teachers, some methodological issues might be outlined from the conduct of this study.

1. Research on pedagogical content knowledge has focused on the teachers, how they transform their content knowledge to fit the student understanding. Surprisingly, past research of pedagogical content knowledge did not assess the student understanding of the teacher's instructional representations. Going through the data analysis, I became
more and more aware of the centrality of student understanding of the teachers' representations and wished I had collected more data related to it. For example, individual interviews focusing on their understanding of selected instructional representations could have been conducted with individual students. Observational data on the students' behaviors could also have been collected, such as what type of questions they asked, when did they ask the questions, were the students confused, how and when. In the present research I collected observations on the students but only as a peripheral subcategory. My main focus of observation was teacher behavior. As mentioned in the methodology chapter, although past research on pedagogical content knowledge did not include data from the students' perspective, I had planned at the outset of this study to include data from the students' perspective by the means of the critical incident technique questionnaire (Flanagan, 1955). At the outset of the research, my motivation to do so was not very focused. I considered these data peripheral to my research questions. Actually I was not even sure if these data would be of any use. I simply wanted to collect the students' perceptions of effective and ineffective teaching episodes. In retrospect, I appreciate the complementary source of data and in the eventuality of a replication of this research I would certainly pay more attention to this data source. The critical incident technique questionnaire proved to be appropriate mainly in the second case study. To provide rich and thick data, the students answering the critical incident technique questionnaire need a short training session (Caruzo, 1980). In the data collection of the first case study, the training session was too short. While collecting data for the second case
study, I adjusted and obtained richer data. Ball (1988) argued that
instructional representations are the substance of pedagogical content
knowledge. Collecting information about student understanding of
instructional representation seems to me important information to assess a
teacher's level of pedagogical content knowledge. Ideally, the data on
student behavior and understanding of instructional representation should
be conducted in parallel with the investigation of the teacher thinking and
behavior. For this reason, because of the limited scope of a doctoral
dissertation, I would even suggest deepening a single case study from the
combined perspective of the teacher and students rather than studying two
teachers.

2. I collected the data throughout a period of six weeks in Glenna's case,
immediately followed by three weeks with Martha. The intense time frame
of the data collection did not allow methodological adjustments as often
recommended in the literature on qualitative research (Patton, 1990). For
example, with a longer time for data collection, as just mentioned, I would
probably have collected more data from the student perspective. In
retrospect, I believe that the quality and quantity of the data were
appropriate to answer the questions asked, but the distribution of the data
collection was too intense to permit an emerging design.

3. The literature on qualitative research is unanimous in recommending
conducting member checks to increase the credibility of the research
(Lincoln and Guba, 1985). A common way to perform member checks is to
send back the transcripts of the interviews to the subjects. In my view,
however, that is not sufficient. That stage must be followed by the
presentation of the researcher's interpretation of the data to the subjects. Both levels of member checks have been conducted in this research. In a further qualitative study, I would do the same but would provide more information to the subjects about what a member check is. As mentioned in the methodology chapter, one subject probably understood that her task was to edit my writing. That goes beyond the task of the member check. The subjects are invited to correct inaccurate information and to react to the interpretations of the researchers but the ideas expressed and the writing style are the ownership of the researcher.

4. Qualitative research studies reveal great differences in the type of participation of the researcher in the activities they observed (Spradley, 1980). In this study my participation varied from spectator taking notes to complete participation as a teacher and as a student. Each type of participation had its advantages and disadvantages. Participating fully as a student gave me the sheer pleasure of taking a dance class, but most important, experiencing the organic flow of the class had a positive influence on the preparation of the interview guide. It triggered questions about Glenna's and Martha's motives for selecting specific tasks. However, I found that "going native" limited the quality of both my observation and my field notes. For that reason, my most frequent type of involvement was to observe from an onlooker stance. The involvement that yielded the worst data was moderate participation. When I tried to take notes while alternating observation and participation as a student, each time it was a catastrophe. I became confused both as a student and as a researcher. As mentioned in the methodology chapter, during the data collection with my
first subject, I also experimented with participation as the teacher, which made more sense since the focus of this study was on the teacher and not on the students. Meaningful data emerged from that experience. Aspects of Glenna's teaching became clear to me by contrast to my own content knowledge choice and teaching strategies. Taking the teacher's role also yielded new insights about her teaching because it created a pretext to talk about her pedagogical content knowledge in a different way than we used in the guided weekly interviews initiated by me. Glenna was then leading the discussion in order to insure the continuity of her program. I concluded from this experience that the extent to which it is possible for a researcher to become participant depends on the nature of the phenomenon under study, but also on the knowledge background of the researcher. I had the knowledge base to allow me to take the role of my subject. Although Spradley (1980) cautions that "the more you know about a situation as an ordinary participant, the more difficult it is to study it as an ethnographer" (p. 61), this specific case study revealed the benefits for the researcher of having a knowledge base proficient in relationship to the case.

5. The literature on qualitative research points out the importance of peer debriefing throughout the data analysis. A weekly discussion with the advisor of my doctoral committee provided the external and critical eye that allowed me to keep looking at my data with curiosity. I also had some peer debriefings specifically on methodology and dance issues. Those are of extreme importance.

6. Dance teachers are in continual motion, bending, spiraling, jumping, rolling on the floor. For that reason, the subjects sometimes removed the
wireless microphone attached to them. The smallest most secure microphone should be used because the quality of the verbatim transcript is of prime importance.

7. Methodological adjustments were made for the stimulated recall session from the first subject to the second one. While the open instructions given to Glena allowed her to speak in generalities, selecting specific teaching episodes and directing the interviews in a narrower fashion yielded to more focused information with Martha. The stimulated recall sessions are indeed favourable for collecting specific data by relating the teacher's content knowledge to the content contained in the tasks observed. In the eventuality of a replication of this study, I would adopt this later strategy because it yielded data complementary to the data gathered in the interviews. Indeed, though each weekly interview had a theme, the open-ended format of the interviews provided the occasion to speak in generalities.

8. A total of 10 classes were recorded on videotape. During the data analysis, having visual information helped me to remember in detail the different tasks. In the eventuality of a replication of this study, I would record more classes on videotape since that would also allow a better selection of teaching episodes for the stimulated recall sessions. Another advantage of having videotapes of classes is that they could be submitted to an audit trail, which is another means to establish trustworthiness (Lincoln and Guba, 1985). One task of the auditor is to examine if the findings and recommendations are supported by the data and are internally consistent. Providing the auditor with the original videotapes of the classes would allow the auditor a more intimate contact with the raw data than the written field notes of the
observations. The more raw data the auditors get, the more credible is their trail. In the eventuality of a replication of this study, a meaningful audit trail could be conducted if the auditor is provided with both the videotapes of the classes and audiotapes of the interviews, all original documents gathered during the data collection, records of all the phases of the data reduction and the final case narratives.

9. Boldface type was used in the case narratives to distinguish between descriptions and interpretations. That came as a result of my natural and spontaneous way of organizing the material. Throughout the research, changing type face was my way to connect my findings to existing literature. In order to remember specific pieces of theoretical or interpretive information for an eventual discussion chapter, I adopted the habit of writing that information in boldface type. That way of relating the particular of the cases to more general issues proved to be effective during the data analysis and I wondered if it was possible to do the same in the final writing of the case narrative. After verifying the acceptance of this format with the Graduate School, the decision was made to keep this format. While making this decision I was aware that the format presented some danger of redundancy because the two cases were rooted in the same theoretical framework. However, that proved not to be a problem. I noted that sometimes I deepened in the second case issues addressed in the first case.

10. A reflexive journal was commenced when I first solicited the subjects to participate in the study and continued through into the writing of the case narratives. The journal was helpful in two ways. First, it helped me to process the emotional aspect of the data collection. I had indeed to
acknowledge my contribution as a researcher within the environment of the two festivals in which intellectual pursuits are very marginal and not highly valued. Second, the journal helped me to retrace decisions during the study. The journal was not a source of data per se. That does not mean that I would not recommend keeping a journal. Personally, it had an important function of "self-audit trail." It helped me to assess if I was consistent from the start to the end of the study so that the "bottom line" may be accepted.

To conclude, it must be reported that the knowledge gained through these two cases could not have been generated without the cooperation of the two subjects. That cooperation was generous and, in my view, given honestly. I am grateful that the two subjects were so willing to share their lives and teaching with me in such intimate detail. It is inconceivable to me that I could have reached such an understanding of these women if they had been reluctant participants or not fully forthcoming during interviews. If, through this research, their lives and teaching can inform a wider dance teaching community, I am sure they would be pleased and satisfied.


Caruza, V. M. (1980). Behavior indicating teacher enthusiasm: Critical incidents reported by teachers and students in secondary school...
physical education and English classes: Dissertation Abstracts International, (University Microfilms No. 80-12, 590)


Clark, C. M. (1986). Ten years of conceptual development in research on teacher thinking. In M. Ben-Peretz, R. Bromme, & R. Halkes (Eds.), Advances in the research on teacher thinking (pp. 7-20). Lisse: Swets and Zeitlinger.


Erickson, F. (1986). Qualitative methods in research on teaching. In M. C. Wittrock (Ed.), Handbook of research on teaching (3rd ed.), (pp. 119-161). New York: Macmillan.


APPENDIX A

PARTICIPATION REQUEST
January 31, 1991

Dear "...",

I am writing to ask for your collaboration in my doctoral research. As you know, I am pursuing my doctorate in a one-of-kind program at the Ohio State University, combining courses in dance, physical education and art education. I am interested in knowing how teachers of modern dance teach and how they conceptualize their subject matter.

Your participation would be extremely valuable for my study. This is not only because you have had a long and varied teaching experience, but also, because you have been able to integrate your background in body therapies into the dance studio.

The study in which I solicit your participation will consist of a few case studies with teachers who have some experience in one or more body therapies, and who teach technical classes of modern dance. These qualitative case studies would consist of observing the teachers and of interviewing them about their actions in the studio, their views, their doubts, their questions, etc. This research methodology is attractive to me because it can become genuinely collaborative. The interviews allow you to share your teaching expertise in a way different than you would in your normal studio environment. This research methodology is also attractive because it is not evaluative, but strictly descriptive.

As far as your own involvement is concerned, I would essentially need a weekly commitment of one and a half hours for interviews, beyond which I would be an unobtrusive observer. Should you agree to participate, your precise involvement would consist of the following:
1) The weekly interview of approximately one and a half hours in length. With your permission, the interviews will be audio taped and transcribed. My goal is to analyse the materials and to use them to develop an understanding of the relationship between the knowledge acquired (practical as well as theoretical) and the teaching decisions and actions. The first interview might address, for example, your goals while teaching this class, the second interview may focus on your background, the third may consist in planning a lesson, and your rationale for decisions you make.
2) Midway through the festival, with your permission, I would video tape one of your classes. That week's interview will consist of viewing the videotape with me. I will ask you to describe what you see and to answer questions related to various aspects of the lesson.
3) Allowing me to daily observe your 4 pm technique class during the six weeks period of the festival. With your permission, I will also audio-tape the classes for better accuracy.
4) Sharing with me any material you may use, such as planning sheets, transcripts of students, reference books, etc.
5) Introducing me to your student and colleague, and to allow me to go with you to the faculty meeting you may have. That in order to fully understand the larger context in which you are involved.

Obviously, the research would be anonymous and confidential unless you decide differently. All written material, such as the transcripts of the interviews, or the drafts and the final dissertation will be presented to you to insure that they reflect your point of view. While consenting to participate, you may of course at any time withdraw from the research, or ask me to not include some piece of information.

At the end of the six week period I would be glad to offer you, copies of the transcripts of the interviews, the copy of the video of your teaching, and later a copy of the final report. Beyond that, thought, I suspect that the project may be a good learning experience for both of us. Last fall, I conducted a pilot study, and the experience has been very stimulating for both the teacher involved and myself. In the long run, if we feel like it, perhaps we could be involved in a co-authorship of further articles or presentations.

I deeply hope that this project is appealing to you, and that you can participate in it. If you have any questions or additional ideas about the direction of the research, do not hesitate to contact me. Should you accept, let me know as soon as possible so that I may write to the American Dance Festival and obtain permission.

Sincerely,

Sylvie Fortin
APPENDIX B
LETTER TO THE DIRECTORS
March 9, 1991

Object: Permission to conduct a doctoral study during the ADF.

Dear "...",

I am pursuing a doctorate in a "One-of-a-Kind" program at the Ohio State University, combining courses in dance, physical education and art education. I am interested in using one of your faculty members, Glenna Batson, as a subject in my study. She enthusiastically agreed to participate in my research when I met with her in February during the Symposium on the Science and Somatics held in Philadelphia. You should soon be receiving a confirmation from her. Therefore, I am requesting a formal permission from you to conduct my study at the American Dance Festival.

I have chosen Glenna Batson not only because she has had a long and varied teaching experience, but also because she has been able to integrate her background in body therapies into the dance studio. My study is a qualitative case study which consists of observing and interviewing Glenna about her actions in the studio, her rationale, her values, etc. Since my purpose is to observe, I will not interfere in any way with her teaching at the Festival.

I am specifically requesting permission to observe Glenna's daily 4 pm technique class throughout the 6-week period, and to video tape one class midway through the festival. The research is completely anonymous and confidential. All written material including transcripts of the interviews and my dissertation will be shown to Glenna to ensure that it reflects her point of view.

If you would like to know more about the purpose and methodology of my research, I would be pleased to send you a copy of my doctoral proposal, and provide you with any further information you request.

I look forward to hearing from you and thank you for your interest.

Sincerely,

Sylvie Fortin
APPENDIX C

OBSERVATIONAL SHEET
APPENDIX D

INTERVIEW GUIDE EXAMPLE
INFLUENCE

Tell me a little bit about any memories that you may have in your past experiences and that may have influenced your way of teaching?

Can you tell me about any dance experiences that have been significant for one reason or another? Why were these important? Anything else?

Talk to me for a few minutes about the people you feel have most influenced you as a teacher?

PLANNING

What are your objectives when teaching modern dance? What are your objectives when teaching to this class? If you were teaching for other students, would it be different?

Have you always thought like that or did you have a different perspective in the past? What made you change?

Do you plan your classes? How?

Where do you get your ideas for teaching?

Do you vary the content of your classes from one class to another one? How? Can you give me an example?

DESCRIPTION OF INSTRUCTION

If you had to describe your class to a layperson who could not come and see your class how would you describe the class?

Can you describe the content of your class in more detail?

How would you describe your pedagogical behaviors?

EVALUATION OF LEARNING

How do you evaluate your students?

Would it be different in an other context?

EVALUATION OF TEACHING

How do you feel about your teaching in general?
APPENDIX E

STUDENT QUESTIONNAIRE
Sex: __________ Age: ______ Occupation: __________

Describe a situation related to this class in which you improved your efficiency as a dancer? Be as detailed as possible. Write exactly what the teacher said or did to help you learn.

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Describe a situation related to this class in which you DID NOT improve your efficiency as a dancer? Be as detailed as possible. Write exactly what the teacher said or did.

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Any general comments about the class?

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Thank you very much,

Sylvie Fortin
APPENDIX F
CODING SYSTEM FOR THE DOCUMENTS
<table>
<thead>
<tr>
<th>Document ID</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>G.D.A.B.</td>
<td>Glenna Document ADF Brochure</td>
</tr>
<tr>
<td>G.D.P.B.</td>
<td>Glenna Document Personal Brochure</td>
</tr>
<tr>
<td>G.D.D.</td>
<td>Glenna Document Diary</td>
</tr>
<tr>
<td>G.D.W</td>
<td>Glenna Document Workshop of Ideokinesis</td>
</tr>
<tr>
<td>G.D.P.1</td>
<td>Glenna Document Publication 1 (see Batson, 1987a)</td>
</tr>
<tr>
<td>G.D.P.2</td>
<td>Glenna Document Publication 2 (see Batson, 1987b)</td>
</tr>
<tr>
<td>G.D.P.3</td>
<td>Glenna Document Publication 3 (see Batson, 1987c)</td>
</tr>
<tr>
<td>G.D.P.4</td>
<td>Glenna Document Publication 4 (see Batson, 1990)</td>
</tr>
<tr>
<td>G.D.C.</td>
<td>Glenna Document Correspondence</td>
</tr>
<tr>
<td>G.D.I.C.</td>
<td>Glenna Document Incident Critiques</td>
</tr>
<tr>
<td>M.D.B.B.</td>
<td>Martha Document Bates Brochure</td>
</tr>
<tr>
<td>M.D.B.M.D.</td>
<td>Martha Document Body-Mind Dancing</td>
</tr>
<tr>
<td>M.D.P.1</td>
<td>Martha Document Paper 1 (see Eddy, 1991)</td>
</tr>
<tr>
<td>M.D.P.2</td>
<td>Martha Document Paper 2 (see Eddy, 1992)</td>
</tr>
<tr>
<td>M.D.P.3</td>
<td>Martha Document Paper 3 (see Eddy, 1984)</td>
</tr>
<tr>
<td>M.D.C.V.</td>
<td>Martha Document Curriculum vitae</td>
</tr>
<tr>
<td>M.D.C.</td>
<td>Martha Document Correspondence</td>
</tr>
<tr>
<td>M.D.D.</td>
<td>Martha Document Dialogs-Past Beginnings</td>
</tr>
<tr>
<td>M.D.W.M.</td>
<td>Martha Document Women Magazine</td>
</tr>
<tr>
<td>M.D.B.M.C.</td>
<td>Martha Document Body-Mind Centering</td>
</tr>
<tr>
<td>M.D.I.C.</td>
<td>Martha Document Incident Critique</td>
</tr>
<tr>
<td>M.D.C.E.F.</td>
<td>Martha Document Course Evaluation Form</td>
</tr>
</tbody>
</table>
APPENDIX G

EXPANDED FIELD NOTE SAMPLE
Number of students: 13 W, 4 M  
Observation: 1.1  
Time: 7:38

Organization Students Analysis  
Circle, G. in the middle Diverse back ground (liner, choros, injured dancers)  
Sally Sylvor talked to me about how body therapies influence the choreographers? Sometimes the work become too internal?  
G. did not introduce me.  
G. Apologize the following day.  
Do not negate herself as participant in the class. She demonstrates mainly for her own needs to move and not in order to avoid injuries. Is a member of the class and wants to benefit from the class and the students.

Date:  
Tasks: 1.1.2 - Identifying tension  
Observation:  
Time: 12:56

Organization Students Analysis  
Supine in all the space. No question  
Talks almost continuously, loud and warm voice, uses many qualifying terms such as gently, uses also many anatomical terms such as rib cage.  
Genna starts the exercise with them, then sits and continues to verbally guide. So the students listen her voice while she is either doing herself the movements or observing them.

Date:  
Tasks: 1.1.3 - rib cage towards ceiling, toward floor  
Observation: 1.1  
Time: 3

Organization Students Analysis  
Supine  
Does not presuppose an effect  
Talks while doing the exercise or observes and continues talking.
APPENDIX H

PLANNING SHEET SAMPLE
June 10 - 1941 - Gough + Bovey
G.D.P. 1.1

General Theme - Identifying tensions

Bringing whole body into movement

Frequent pauses to lengthen breath moves, lengthening into movement, widening, lengthening, degrading.

What body parts do not participate in whole movement?

Floor

Eyes into head - connecting head to whole body

Eyebrows - head to body - elbow - spine - head to floor - hand on floor - spine - head to floor - hand on floor

Eyes on chest - spine wriggle - eyes on floor - eyes on legs - eyes on floor - spine wriggle

Lengthen-deepening, swing side to side, swing side to side

Foot press to spine, side to side, swing side to side

Into solution - arms - legs - arms - legs

Swing leg side to side - swing leg side to side

Sitting

Standing (one moving, one sustained)

Combo

Weak through swing combo - then do to length

Muscle

(a) Leg gesture - front - side change - back - side change - back

And other

3. Finger - step - step

2. Head to head movement

3. Triple

1. Thrust - lift arms - follow to head swing

3. Arms wrap around body
APPENDIX I
MEMBER CHECK REQUEST
April 22,

Dear "...",

Here is a copy of my research. I would be thankful to you if you would give me your feedback as soon as possible.

First, is there inaccurate information? Please correct biographical errors and feel free to react to the interpretations. You are also welcome to add information that would better reflect your viewpoint. Second, will you include a short statement about what you felt or learned during the data collection at the Festival? Third, how are you affected by reading these results? In other words, I would appreciate any comments on your experience as the person being researched.

You will notice that I changed the students' names. However, hoping you would not mind, I kept your name. Let me know if you want me to use a pseudonym. If I use your name, you may ask me to remove specific pieces of biographical information that you feel uncomfortable with.

When the dissertation is finished, I will write articles on specific aspects of the study. I will let you know my plans for future publications. It might be interesting to co-author a paper on the research on dance teaching from the combined perspective of the teacher and the researcher. It seems to me this would excite the curiosity in the dance community and have an incentive effect.

Thank you again for your invaluable collaboration. I enjoyed my time with you this summer, and I enjoyed the analysis this winter too. I deeply respect your teaching, and learned a great deal from it. It would be helpful to hear from you by the end of May so that I can follow my schedule.

In friendship,

Sylvie
APPENDIX J

TASK DESCRIPTION FOR GLENN'S CLASS
Task performed in the integrative part of Glenna's class
Pattern across the floor

Notated from videotape by
L. Venable 7/92
Task performed in the investigative part of Glenna's class

Extension of body in preparation for bending back when standing

Shake your tail, tail is connected to the head. Do this to release the low back.

Softening & sagging through the shoulders

Head moves away from your body

Notated from videotape by L. Venable 7/92
APPENDIX K

TASK DESCRIPTION FOR MARTHA'S CLASS
Routine copy task. Across the floor work.  (Martha)
Routine copy task. Level change work. (Martha)

Notated from videotape by
L. Venable 7/92