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The relationship between self-assessment ratings of functional literacy skills and Basic English Skills Test results in adult refugee ESL learners

Coombe, Christine A., Ph.D.

The Ohio State University, 1992
THE RELATIONSHIP BETWEEN SELF-ASSESSMENT RATINGS
OF FUNCTIONAL LITERACY SKILLS AND BASIC ENGLISH SKILLS
TEST RESULTS IN ADULT REFUGEE ESL LEARNERS

DISSERTATION

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

By
Christine A. Coombe, B.A., M.A.

The Ohio State University
1992

Dissertation Committee:
Gilbert A. Jarvis
Charles R. Hancock
Keiko K. Samimy

Approved by
Adviser
College of Education
To My Father
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VITA


1984  . . . . . . . . . . . B. A., Fairmont State College,
Fairmont, West Virginia

1985 - 1986  . . . . . . . . . . . French Government
Teaching Assistant,
Caen, France

1987  . . . . . . . . . . . M.A., West Virginia
University, Morgantown,
West Virginia

1987-1988  . . . . . . . . . . . Instructor, University of
Caen, Caen, France

1988-Present  . . . . . . . . . . . Graduate Administrative/
Teaching Assistant,
The Ohio State University
Columbus, Ohio

PUBLICATIONS

Instruction. The Ohio TESOL Newsletter 15, 10-15.

Coombe, C. A. A Global Perspective in the Foreign and
Second Language Classroom. ERIC/Languages and
Linguistics, Washington, D.C.: Center for Applied
Linguistics.

for Teaching American Culture in the ESL/EFL Classroom.
TESOL France Journal 8, 22-28.

FIELDS OF STUDY

Major Field: Education
Foreign and Second Language Education
(Dr. Gilbert A. Jarvis, Dr. Elizabeth
Bernhardt, Dr. Keiko Samimy,
Dr. Charles Hancock)
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CHAPTER I
THE PROBLEM

Introduction

The shift in emphasis from teacher-centered toward student-centered pedagogy has raised questions as to the evaluation processes that would be best suited for this new approach. It is inherent that in a student-centered setting students become responsible for many of the decisions concerning what and how they want to learn. The learning of a language for specific purposes, the use of a functional approach, and even more, that of a communicative approach require that students be a part of the complete learning cycle. According to LeBlanc (1985), it is unacceptable that the student's role be restricted to that of a learner of content chosen by others, through techniques imposed by others, and with purposes established by others. Being part of the complete learning cycle should imply involvement in all aspects of that cycle including the assessment process. Although this makes sense in theory, in practice, learners have not often been involved in language testing, because it has been perceived that they did not have a great deal to contribute (LeBlanc, 1985). The question of students'
ability to provide meaningful input into the evaluation of their performance in the use of a second language (L2) must be raised. In other words, do students know enough about their abilities in the language they are learning to make a useful contribution? According to LeBlanc and Painchaud (1985), the ability to self assess must be at the root of every approach to teaching/learning if students are to have meaningful input (p. 674).

In refugee second language learning the emphasis has always been student-centered. Adult refugee ESL places a great deal of emphasis on aural and oral skills or what has loosely become termed as communicative competence. In most basic level English courses for adult refugees, learners are primarily focused on the development of listening comprehension and functional speaking and literacy abilities.

The idea of adult self-assessment is not new. As far back as 15 years ago, Upshur (1975) suggested that students were able to give an accurate assessment of their abilities with the language and that the self-assessment process was particularly relevant in more informal language study settings, especially for mature students. In the case of adult learners, as pointed out by LeBlanc and Painchaud (1985), adults who place themselves in a classroom learning situation have very specific objectives and expectations.
Although self-assessment has been practiced for a number of years in fields such as psychology, sociology, and business, its use in second language teaching and learning has remained sporadic. A review of the literature shows that most of the research has been carried out with students of EFL, French, and in one case, Swedish. The general pattern of results that emerges is one of fairly consistent overall agreement between self-assessment and external criteria. Oskarsson (1984) and Von Elek (1982) have suggested that there is a possible correlation between the accuracy of self-assessment ratings and such variables as sex, previous years of language study, and cultural and national background. A search of the literature on the relationship between self-assessment ratings and external criteria reveals, however, that these variables have not been fully explored.

Statement Of The Problem

Although the importance of self-assessment in adult learners has already been established, the variables that might affect the accuracy of self-assessment ratings have received scant research attention. The self-assessment literature is dominated by a limited number of reports and studies whose aim is to determine the degree of accuracy in adult learners' estimates of their own proficiency in a second language. These studies, though predominately EFL,
fail to examine an important variable inherent in heterogeneously grouped classes, that of the students' native background.

This study is an attempt to gain insight into the self-perceptions of refugee students' observations regarding their own functional literacy abilities in English as a second language (ESL). Secondly, this study will attempt to factor out the native background variable and investigate its correlation with self-assessment data.

This study focuses on a refugee population for several reasons. First of all, a review of the literature revealed that no empirical data was available for this group of ESL learners. Secondly, ESL educators advise exercising caution when applying TESL findings to refugee programs especially those relating to self-evaluation, because of differences in level of education, motivation and other criteria (Kleinmann, 1982). Thirdly, adult refugees constitute a very sizable group of ESL learners. As of December 1991 in excess of 12,500 refugees have settled in the state of Ohio, over 7,000 in Franklin County alone (Siddeman, personal communication, December 15, 1991). With a national commitment to admit 110,000 refugees during fiscal year 1991, it can be expected that even more refugees will be resettled in Ohio. In the past 20 years, more refugees/immigrants have come to the United States than at any time since the turn of the century. Between 1970 and
1980, the foreign born population increased by 4.5 million. If these trends continue, refugees/immigrants will add more than 9 million people to the United States and 4 million to the labor force by the year 2000. (Office of Refugee Resettlement, 1989) Finally, a refugee population constitutes a heterogeneously grouped classroom with a broad range of native backgrounds.

Purpose of the Study

The purpose of this study is to answer the following primary research questions:

1. Is there a relationship between self-assessment ratings of functional literacy skills as measured by an ability statement self-assessment instrument and formal test results on the literacy section of the Basic English Skills Test (BEST) in adult refugee ESL learners?

2. Is there a correlation between the subjects' native background and self-assessment ratings of functional literacy skills and Basic English Skills Test (BEST) results?

The following research questions are of secondary interest to this study:

3. Is there a relationship between the subjects' gender and self-assessment ratings of functional literacy skills and BEST results?
4. Is there a relationship between the subjects' level of motivational intensity as measured by a multiple-choice motivational intensity instrument and self-assessment ratings of functional literacy skills and BEST results?

**Definition of Terms**

The following terms critical to the present study are defined below.

**Refugee**

Persons outside the country of their nationality, the country of their former habitual residence, because they have or had well-founded fear of persecution by reason of their race, religion, nationality, social group, or political opinion (as defined by the United Nations High Commissioner for Refugees, UNHCR) (Winter, 1989). The subjects in this study are classified by the UNHCR as political, social, and religious refugees.

**Self-Assessment**

The students provided information about their ability to use the language and to evaluate their performance with respect to functional literacy skills as indicated by their ratings on a Likert scale self-assessment instrument.

**Functional Literacy Skills**

Literacy skills (reading and writing) that will allow the student to function in society. These skills represent what the Mainstream English Training Project (MELT) term as
basic competencies and cross-competencies in adult refugee ESL education. Competencies include: banking, community services, employment, health, housing, shopping, and transportation. Cross-competencies are listed as giving and understanding directions, handling money, personal identification, using the telephone, and telling time. These competencies and cross-competencies were tested through the literacy skills section of the Basic English Skills Test (BEST).

Basic English Skills Test (BEST)

The BEST is a test of elementary listening comprehension, speaking, reading, and writing, intended for use with limited-English-speaking adults for whom information on the attainment of basic functional language skills is needed. The test consists of two sections: a Core section and a Literacy Skills section. Functional literacy skills were measured by the literacy section of this test.

Native Background

Each student's respective nationality or ethnic background. This study investigated adult refugee ESL learners of three countries of origin: Russia, Vietnam and Cambodia. All Russian subjects participating in this study were citizens of what was formerly the Russian Republic.

Ability Statement

Statements of functional literacy skills that are tested in the Basic English Skills Test as judged by
experienced teachers of adult ESL literacy. These statements cover the basic literacy skills of reading and writing and have the following form:

I can find telephone numbers in a telephone directory.

**Motivational Intensity**

The amount of effort the individual expends or would be willing to expend in order to learn the second language as measured by a self-report motivational intensity scale adapted from Gardner and Lambert's Attitude/Motivation Test Battery (1985).

**Assumptions**

This study is based on the following assumptions:

1. The subjects will perform on the self-assessment instrument (SAI), the Basic English Skills Test (BEST) and the motivational intensity instrument (MII) to the best of their abilities.

2. The native language self-assessment instrument developed by the researcher is a valid measure of the subjects' ability to comprehend the instrument.

3. BEST scores are a valid and reliable measure of functional literacy skills for limited-English proficient adult learners.
Limitations

1. Because of a small enrollment of students of certain native backgrounds (Laos, Ethiopia, Haiti, Iran, Nicaragua, Afghanistan, and Romania) in the targeted sample, their native backgrounds were not investigated.

2. Total student anonymity was not possible due to certain scoring procedures on the literacy section of the BEST where students are asked to fill out an application form with personal information such as name, address, and birth date.

3. Level of English language competence was not measured in the present study.

4. Diversity among members of the three native background groups was not investigated in the present study.

Significance Of The Problem

According to June (1983), the topic of self-assessment has only just begun to expand as a distinct field of interest in language testing and evaluation. Although the general pattern of results that emerges is one of fairly consistent overall agreement between self-assessment data and external criteria, the literature reveals many contradictions to this pattern.

Fellenz (1976) points out that, "self-directed learners are not produced by telling adult students that they are to be responsible for their own learning" (p. 257). He argues
that this concept also applies to self-assessment in that a finely tuned self-assessment ability does not come automatically to all students. Research has shown, for instance, that when left to their own resources, students simply do not have the tools to cope with self-assessment that requires them to describe with some precision their own level of proficiency (LeBlanc & Painchaud, 1976). Lewkowicz and Moon (1985), discussing learners at the lower end of the scale, assert that, especially for writing, "it is wrong to place the responsibility on the student for assessing his own competency in English. In all probability he has no reliable yardstick with which to compare himself" (p. 51). These same authors also cite McLeod's claim that good learners tend to underestimate themselves (because they have some notion of all that remains to be learned), while students who have reached a plateau tend to overestimate their ability (because they have stopped learning and cannot perceive a need for improvement).

At the same time, however, LeBlanc and Painchaud (1985), Oskarsson (1978), Van Passell (1974), and Von Elek (1982), among others, report good results with self-assessment questionnaires. It is not known why such contradictory results have been obtained, but the mere fact that these discrepancies exist shows that further research is warranted regarding the use of self-assessment in the area of second language evaluation.
In summary, the purpose of this study is twofold:

1. To expand the self-assessment knowledge base concerning how adult refugee students' estimates of their own functional literacy abilities compare to formal test results obtained on the Basic English Skills Test (BEST).

2. To investigate students' native background, a possible variable that might be causing the aforementioned contradictory results in second language self-assessment literature.
CHAPTER II
REVIEW OF THE LITERATURE

Introduction

This review of the literature examines the question of the accuracy of learner self-estimates of second language skills and their effects on the teaching/learning process. Research is identified that both supports and contradicts the value of learner self-assessment in second language learning.

Self-Assessment in Second Language Learning

Research suggests that the learner is the only one who knows, intuitively, the relationship between the objectives of the evaluation and the student's actual knowledge at any given time (LeBlanc, 1985). The greater emphasis which is now being placed in ESL classrooms on encouraging learners to determine their own objectives and to monitor their own progress has brought with it an increased interest in the use of learner self-assessment (Brindley, 1989). Many second language educators advocate the use of self-assessment in the classroom. According to Dickinson (1987), "most successful language learners regularly engage in
Shohamy (1991) suggests that self-assessment data should be an integral part of self-assessment evaluation and such data permits a broader and more extensive picture of the learner's language competence. LeBlanc (1985) sees evaluation as an important part of the learning process and believes that it should reflect closely not only the course objectives but the approach being used to teach it. Blanche (1988) concurs with this view and sees self-assessment as a condition of learner autonomy.

The principle that adult learners should be able to participate in determining the content objectives, methods and evaluation of their own learning is fundamental to a learner-centered curriculum (Holec, 1980). The use of self-assessment techniques and procedures as a way of continuously assessing attainment of course objectives is one form of learner-centered evaluation that has received increasing prominence in recent years (Dickinson, 1982; Knowles, 1975; Lewcowicz & Moon, 1985; Oskarsson, 1981; and Von Elek, 1985).

Proponents of self-assessment procedures and techniques in second language programs believe that it is an effective way not only of involving students more in their own learning but also of developing their capacity to set realistic goals for themselves, thus leading to increased motivation (Brindley, 1986). One of the principal
advantages of self-assessment is its potential for a close link to specific course or program objectives. Therefore, it can be, in turn, used by the teacher to check attainment of these specific course or program objectives. Indeed, self-assessment takes some of the burden of assessment off the teacher by enabling students to assess themselves according to their own standards of performance (Dickinson, 1987). This increased involvement of students in all aspects of the assessment phase helps to create a cooperative classroom environment.

Not all second language educators, however, view self-assessment in positive terms. In spite of numerous advantages, self-assessment is frequently viewed with suspicion by those who identify assessment with 'objective' externally administered instruments such as tests and examinations.

As seen from the learner's point of view, second language skills may be assessed along two fundamentally different lines. They involve:

(a) Assessment in the form of self-report or self-assessment, that is, assessment seen in the learner's own perspective; assessment seen as an internal or self-directed activity.

(b) Assessment in the form of examinations and administration of tests, that is, assessment seen in the perspective of an 'outside agent,'
typically a teacher or trained examiner; assessment seen as an external or 'other directed' activity. (Oskarsson, 1989)

External assessment is seen by many as the only reliable way of determining someone's proficiency in a second language. The strategy of self-assessment, although it has attracted increasing attention in recent years, is often regarded as quite inappropriate for purposes of assessment (Oskarsson, 1989). Most arguments put forward against self-assessment are related to its perceived subjectivity. The idea that students can be reliable judges of their own performance is not universally accepted. According to Holec (1985), these views represent a misunderstanding of the scope and purpose of self-assessment. He states that when carrying out self-assessment, learners are assessing their progress against a set of internally defined criteria corresponding to their own learning objectives. Oskarsson (1989) states that the question of self-assessment subjectivity does not invalidate the practice of self-assessment techniques in language testing and evaluation and, furthermore, that self-assessment may be motivated by reasons that go beyond mere evaluation.
Purposes of Self-Assessment

By being actively involved in assessing their performance, learners come to understand that assessment is very much an aspect of learning. According to Pavis (1989), second language learners should be encouraged to trust their ability to assess their performance. Von Elek (1985) puts forth four principal purposes of self-assessment in second language learning. They include:

1. enables learners to assume greater responsibility for the assessment of their proficiency and progress
2. enables learners to diagnose their weak areas and to get a realistic view of their overall ability and skills profile
3. enables learners to see their present proficiency in relation to the level they wish to attain
4. helps learners to become more motivated and goal-oriented

Procedures of Self-Assessment

A review of the literature reveals a range of techniques and procedures used for the purpose of self-assessment. Self-corrected tests and exercises (Dickinson, 1987), learner record keeping (Clark, 1987), standardized questionnaires (Oskarsson, 1980, 1984) and self-assessment batteries (Von Elek, 1985) are all examples of different
self-assessment procedures that have been used in recent studies. Types of self-assessment which have also been used range from formal tests or questionnaires requiring students to assess their performance against specified criteria or objectives, (e.g., a set of proficiency descriptions with which students compare themselves) to less formal means such as oral reports given by learners on their real-life interactions. Other methods of self-assessment include learner diaries in which learners record their classroom experiences; retrospective self-assessment of interaction with native speakers outside the classroom; group discussion and self-ratings of specific instructional objectives (Brindley, 1989).

A wide variety of procedures for self-assessment have been documented over the past decade. These include rating scales, checklists, questionnaires, and large-scale self-assessment testing.

Rating Scales

One of the most commonly used self-assessment tools is the rating scale. Underhill (1987) makes a distinction between four different kinds of scales. Defined scales describe different levels of ability at all points on the scale whereas, undefined scales provide descriptions of only the top and bottom levels. General rating scales describe language abilities in general terms and specific rating

Self-Assessment Checklists

Another commonly used self-assessment tool is a checklist of skills and tasks. A list of items is presented, which the subjects are asked to rate 'yes' or 'no' according to whether they think have the requisite skill in the second language (Brindley, 1989). Some of the checklists are expressed in terms of 'micro-skills' (LeBlanc & Painchaud, 1985; Munby, 1978), while others are specified as 'functions' (Oskarsson, 1980). Everyday 'topics' or 'situations' constitute the basis of other checklists that have been used (LeBlanc & Painchaud, 1985).

Self-Assessment Questionnaires

Perhaps the most frequently used procedure that appears in the self-assessment literature is the questionnaire (Blanche, 1988). These questionnaires, either used as the sole self-assessment instrument or in conjunction with another measure, are designed to examine the accuracy of self-assessment estimates and a wide variety of second

Large-Scale Self-Assessment Testing

Several large-scale experiments have been carried out investigating the use of self-assessment tests as a tool for placement and/or diagnosis (LeBlanc & Painchaud, 1985; Von Elek, 1985). These experiments have generally used questionnaires as the primary self-assessment instrument. These studies asked learners to estimate their abilities in the target language either on a rating scale or in relation to specific tasks or skills (Brindley, 1989).

Research on Self-Assessment and Second Language Learning

The topic of self-assessment (variously termed self-rating, self-appraisal, self-evaluation) has just begun to expand as a distinct field of interest in language testing and evaluation (Blanche & Merino, 1989). Self-assessment is a new field in language testing and consequently there is little accumulated knowledge and experience to draw on.

Research reports dealing with self-assessment of foreign language skills have been disseminated in various parts of the world. Most of them involved high school or university undergraduate students and, in the majority of
cases, students of English as a foreign language. Other languages studied were French and, in one instance, Swedish.

The earliest self-assessment research reports identified in this study in the field of second language testing date back to the late 1970s (Heidt, 1979; Oskarsson, 1977). The Heidt study is perhaps the earliest detailed and comprehensive survey found in a review of the literature. In his report, Heidt attempts to analyze the concept of self-evaluation in learning while focusing on the purposes and justifications for self-assessment. The account of concrete research findings, however, is given a less prominent position. The Oskarsson report (1977), on the other hand, suggested and field-tested possible forms of self-assessment for use in adult language learning. These studies were undertaken in order to further one of the fundamental aims of the Modern Language Project, to develop student-centered and motivation-based approaches to language learning in adult education contexts. The results of this study showed a moderately high correlation (values ranging from .50 to .60) between self-assessment results and objective external criteria.

Similar results were obtained by Raasch (1979, 1979a, 1980) at the Deutscher Volkshochschul Verband, an organization offering courses to adults at the elementary levels. He reported that the students' self-assessment of their receptive skills differed to a greater extent than did
their assessment of their productive skills. Students were also able to assess their oral proficiency more accurately than their written proficiency. Most important, however, was the finding that almost half of the students made accurate assessments of their own ability levels.

In a large-scale study in Sweden, Von Elek (1981) developed a self-assessment instrument for adult migrants studying Swedish as a second language at labor training camps. The text items were arranged under six skills areas: vocabulary, grammar, listening comprehension, reading comprehension, oral proficiency and written proficiency. His findings reveal that the students' self-assessments of their language skills were highly reliable. Correlation coefficients were generally high (between .60 and .97) with the exception of the grammar sub-tests that yielded values between .45 and .65.

In another large-scale study, LeBlanc and Painchaud (1985) investigated the suitability of self-assessment as a placement instrument. They conducted a series of three experiments at the University of Ottawa. These experiments dealt with the following research questions:

(a) Do students have the ability to meaningfully evaluate their own performance?

(b) Does the type of instrument used affect that ability?
Can students be satisfactorily placed by self-assessment results alone?

Results of their study indicated that students could adequately assess their level of performance. The correlations between standardized proficiency test scores and self-assessment scores were reported to be .53. Their study also indicated fewer placement changes using the self-assessment approach.

Other studies conducted in Thailand, Holland, Hong Kong, Canada and the United States (Achara, 1981; Anderson, 1982; Blanche, 1986; Evers, 1981; Fok, 1981; LeBlanc & Painchaud, 1981) found high correlations between self-assessment and formal test scores or teacher judgments. These researchers concluded that most of the students could properly assess their own level of knowledge and that self-assessment could be, under certain conditions, a possible replacement for standardized tests.

Several of these studies included qualitative comparisons between self-appraisals and more objective measures of proficiency, usually in the form of calculations of Pearson Product-Moment correlation coefficients. Values ranging from .50 to .60 were common, and higher ones not uncommon in these studies (Blanche, 1988; Blanche & Merino, 1989). This can be interpreted to mean that a set of self-assessments tend to carry about the same weight as any of
the various parts (subtests) of a testing instrument. (Blanche & Merino, 1989).

**Accuracy of Learner Self-Assessments**

The question of whether or not learners can accurately assess their language abilities may depend on the manner in which accuracy is defined (Heilenman, 1991).


Low self-estimates as well as low correlations with more objective scores were consistently reported in two language learning areas: pronunciation (Raasch, 1979, 1980) and grammar (Anderson, 1982; Blanche, 1986; Palmer & Bachman, 1981; Von Elek, 1981, 1982).
In summary, the emerging pattern of research results is one of consistent overall agreement between self-assessments and ratings based on a variety of external criteria.

**The Adult Refugee & ESL**

Over the last thirty years the body of literature regarding second language teaching and learning has increased greatly. Second language educators are now more aware of the complexities of the second language teaching and learning processes. Our profession has also integrated insights from disciplines like linguistics, psychology, sociology and anthropology to contribute to the second language knowledge base. Educators have learned a great deal from university-based studies but what is surprising, however, is the lack of research attention paid to another very sizable ESL population— the adult refugee. (Kleinmann, 1982).

Reports show that during the last six years, the number of refugees admitted to the United States climbed from 68,045 in 1985 to 122,461 in 1990. The number of refugees worldwide has swelled in 1990 to a conservative 16 million (Robinson, 1990). Of the 122,461 refugees admitted to this country in 1990, the largest single group comprised Soviets, 80% of whom are Jewish. Vietnamese refugees were second, and were resettled through the Orderly Departure Program, a joint venture of the United States and Vietnamese
governments to provide resettlement to Amerasians and their families (Grognet, 1991). Southeast Asians from Cambodia and Laos represent the third largest refugee population in the United States.

It is obvious that one cannot talk about ESL education for refugees without considering the circumstances that have brought them to the classroom, and the life situation in which they find themselves. Refugees were, in effect, pushed or forced out of their native countries and forced to migrate to strange lands, frequently leaving loved ones and family members behind (Kleinmann, 1982). The trauma and psychological stress experienced by these involuntary migrants have a strong impact on the refugee and his/her resettlement process (Cohon, 1981).

Although these refugees represent a diverse mix of social and educational backgrounds, their situations are similar in several ways (Bright, 1981). First of all, adult refugee ESL learners tend to have limited or non-English speaking ability upon resettlement. Second, these learners live, work and function in an English-dominant environment. Third, adult refugee learners have a variety of needs, interests, purposes and motivations for learning English. In addition, they have experienced psychological, physical and social upheaval through the resettlement process. Finally, adult refugee learners are often receiving aid or support from government or voluntary agencies. Painchaud
and LeBlanc (1984) identify two other important considerations for adult learners: motivation and first language competency. Adult learners have certain goals and expectations in mind when they place themselves in a learning situation. In addition, most of these adult learners have already mastered a means of communication, their native language. These factors influence the resettlement and cultural assimilation process.

**Refugee Assimilation**

The ease of a refugee's assimilation into the target culture has to do with several factors: age, sex and previous education (Corey, 1986).

The adjustment of elderly refugees to life in the United States is particularly difficult. Deeply rooted in their traditional mores and beliefs, they feel threatened by the new culture. They are frustrated by the fact that whereas, once the revered family heads, now they must depend on younger family members who adapt much more quickly and who, therefore, serve as their link to the outside world. Roles are reversed: the least important family member becomes the most important and vice versa.

The working-age refugee also has special problems and needs. The two most important factors for successful adjustment for this age group are English proficiency and employment.
Of all groups, adolescent refugees usually assimilate most easily, because they are less attached to traditional customs and beliefs and because they learn English more quickly than the elderly and working-age groups. However, because they have been forced to negotiate between two very different worlds, an increasing number of these adolescents have no formal education and many are illiterate in their own languages (Corey, 1986).

Refugee ESL: A Historical Perspective

Great progress in refugee second language learning has been made in the last decade in terms of methods, materials and teaching focus (Weinstein-Shr, 1989).

The materials and methods used in adult refugee ESL have shifted from a structural or grammatical organization to more communicative orientations. The new focus is no longer on "what students know about the language but what they can do with it" (Center for Applied Linguistics, 1983, p. 10). In the 1970s, the rise in popularity of the notional/functional approach had great impact on adult refugee ESL. In this approach, language is organized around the functions a learner needs to express (e.g., asking questions, apologizing etc.) and 'notions' or topics a learner wants to talk about (e.g., family transportation etc.).
At the same time, adult learning theory emphasized the importance of experienced-centered learning growing from the needs and goals of the adult learner (Knowles, 1973). Northrup (1977) introduced the idea of 'competencies' to adult learning theory. These competencies were said to be necessary for an adult to perform in today's society. This was the beginning of what is now termed competency-based education in adult learning theory. Competency-based education is defined as an educational process leading to demonstrated mastery of the basic and life skills needed for the individual to function in society (Berg & Gally Schwartz, 1980).

In the early 1980s the Office of Refugee Resettlement (ORR) and the United States Department of Health and Human Services funded the Mainstream English Language Training (MELT) Project to develop student proficiency levels, a competency-based curriculum guide and a competency-based ESL test (Adkins, 1985).

The primary goals of the MELT project were to test and refine a set of levels to describe student language performance, to design a Core Curriculum Guide, and to field-test three new versions of the Basic English Skills Test (BEST). This project was an attempt by the Federal government to support adult language teaching in which the explicit goal was self-sufficiency and in which teachers could be held accountable for specific learning outcomes.
(Nathan & Lindley, 1980). Grognet (1991), who traced 16 years of refugee education, calls the MELT project the most important response to adult ESL learning needs in the last decade.

Literacy Education

The influx of non-English speaking refugees with, in some cases, only minimal schooling has created new curriculum concerns for adult ESL teaching. Teachers are now faced with the task of helping students develop communication and functional literacy skills and initial literacy skills at the same time.

Literacy is a barrier impeding the adult refugee ESL learner (Penfield, 1986). Numerous scholars have argued that literacy is more than an independent cognitive task of learning to read and write. Literacy can be conceptualized as a way of processing information which affects ways of interaction (Scollon & Scollon, 1981). Others hold that:

Literacy is not simply a result of teaching someone to read by some method and evaluating by some standardized test. The issues surrounding literacy are blurred and confused by language differences, social attitudes towards language, language teaching and learning, politics, economics, psychology and law (Goodman, Goodman & Flores, 1978).
A recent trend toward a broad interpretation of literacy recognizes culture and associated factors such as values, beliefs, attitudes, motivation and cognitive styles as key aspects of literacy education (Spanos, 1991).

The Role of Culture in Literacy

Scribner and Cole (1981) define literacy as a set of cultural practices developed in and for different social contexts. Building on this definition, Reder (1990) argues that literacy is acquired in collaborative social contexts; literacy is a shared activity, not individual proficiency with particular skills. Social meanings and learning attitudes, in addition to functional skills, need to be considered in one's interpretation of what it means to be literate. Ferdman (1990) argues that literacy is framed and defined by the culture of the learner. Since a wide variety of cultures exist in heterogeneously grouped adult ESL classrooms, the student's culture has to be taken into consideration when defining and measuring literacy.

ESL Literacy Research

ESL literacy research is only in its beginning stages. The existing research dealing with limited English proficient (LEP) learners has been concerned with the relationship between literacy skills in the first language and the acquisition of the second language and literacy.
skills. Studies (Reder, 1984; Robson, 1981) reveal that native language literacy has a significant effect on the acquisition of English in the classroom. Reder (1984) also found that several kinds of information point to the effects of the refugee's background characteristics on English acquisition. He found that, on the whole, previous education is, by far, the strongest predictor of success and that younger learners learn faster and reach higher proficiency levels than adults. His research also indicates that non-literatees and women have less success in learning English in a refugee ESL setting.

In a large-scale investigation of refugees in Canada, D'Anglejean (1984) compared the successful and unsuccessful adult learner. She found that low levels of schooling, marginal literacy or illiteracy, and high levels of anxiety characterized the unsuccessful language learner.

Scant research attention has been paid to the impact that cultural differences have on the acquisition of literacy and oral English skills among refugees (Penfield, 1986).

Functional ESL Literacy

Current theory in TESOL and adult education espouses the importance of teaching language that is functional or relevant to the needs of the student (Weinstein-Shr & Lewis, 1991). According to Ranard (1989), what is taught should be
based on what learners want and need to learn. One way to ensure that this happens is to involve the learners in the design of the program. In recent years ESL literacy programs are bringing the learner's input into the process at the beginning. This is being accomplished through what is termed 'learner-participatory' programs. Inherent in a learner-participatory program is the concept of self-assessment as being part of the complete learning process should imply involvement in all aspects of that process including the assessment phase.

Motivation in Second Language Learning

According to Brindley (1986) motivation is a key concept with regard to the self-assessment of second language skills. He states that self-assessment involves students more in their own learning and enables them to set realistic goals for themselves. Both of these factors lead to increased motivation.

The problems of defining attitudes and motivation are considerable and it is not always clear in second language acquisition (SLA) research what the distinction is between the two (Ellis, 1986). Shumann (1978) lists 'attitudes' as a social factor and 'motivation' as an affective factor. Gardner and Lambert (1972) define 'motivation' in terms of the second language learner's overall goal or orientation,
and 'attitude' as the persistence shown by the learner in striving for a goal.

Brown (1981) identifies three types of motivation: global, situational and task. He defines global motivation as the type that consists of a general orientation to the goal of learning the second language. Situational motivation, however, varies according to the situation in which the learning takes place. Task motivation is more specific in that it describes the type of motivation needed to perform particular learning tasks.

According to Gardner (1985) the term 'motivation' has very distinct characteristics and is clearly linked with the language learning process. It refers to the combination of effort plus desire to achieve the goal of learning the language in addition to favorable attitude toward learning the language. In other words, motivation to learn a language is seen as referring to the extent to which the learner works or strives to learn the language because of a desire to do so and the satisfaction experienced in this activity.

The most extensive research into the role of motivation in SLA has been conducted by Gardner and Lambert. They draw a distinction between 'integrative' and 'instrumental' motivation. The former occurs when a learner wishes to identify with the culture of the second language group. The latter occurs when the learner's goals for learning the
language are functional. Gardner and Lambert introduced these two orientations in 1959 and subsequent studies have tended to focus on them (Burstall et al., 1974; Clément, Gardner and Smythe, 1977; Gardner and Lambert, 1972; Lukmani, 1972; Oller, Hudson and Lui, 1977; Smythe et al, 1972; Tucker et al, 1976).

Researchers, however, have argued that the classifications of 'integrative' and 'instrumental' motivation are ambiguous and the distinction has been called into question (Oller, Hudson and Lui, 1977). They argue that a particular orientation could fall into either category depending upon the interpretation put on it by the individual selecting it. In fact, different researchers have classified the same reasons like 'travel abroad' and 'travel to France' differently (Burstall et al, 1974; Lukmani, 1972).

**Motivational Intensity**

Research from various sources indicates that the culture, native language, and native background play important roles in motivation for language learning (Fishman, 1971; Gardner, 1972; Labov, 1971). Motivational intensity is a key concept with regard to the study of motivation and its effects on second language learning (Gardner, 1985).

According to Gardner (1985), motivation involves four aspects: a goal, effortful behavior, a desire to attain the
goal and favorable attitudes toward the activity in question. These four aspects are grouped into two conceptually distinct categories. The goal is regarded as being the stimulus which gives rise to motivation. The other three aspects, reflect individual differences in motivation.

Motivational intensity is defined as being the effort the individual expends (or, in some cases, would be willing to expend) in order to learn the second language. Dunkel (1948) defines this concept as an emphasis on the nature of the 'approaching-the-goal' behavior. That is, given the same goal, two individuals could differ in the effort to achieve this goal.

In the area of SLA, motivational intensity assessment has been based on self-report (Gardner & Lambert, 1959, 1972; Gardner & Smythe, 1974). The self-report measures tend to focus on the amount of time or effort the student spends on homework, the student's willingness to take on extra assignments and the students' intentions about available opportunities to learn the language. In each instance, items are worded to focus on the amount of effort expended rather than on the desire to learn the language (Gardner, 1985).

Researchers stress, however, that a focus on the level of motivational intensity does not permit a clear picture of motivated behavior. Gardner (1985) states that two
individuals may express comparable levels of motivational intensity yet differ considerably in the nature of the affect associated with their behavior. Research has shown, however, that motivational intensity correlates highly with differences in attitudes toward learning the language (Clément, Gardner & Smythe, 1977, 1980; Gardner & Smythe, 1975), although it is conceivable that instances could occur where they are not in agreement.

There can be little doubt that motivation is a powerful factor in the SLA process (Ellis, 1986). Painchaud and LeBlanc (1984) stress that not only is motivation important in the language learning process, but it is an important consideration in adult learning theory as adult learners differ from traditional or non-adult learners in level of motivation.
CHAPTER III
PROCEDURES

Population and Sample Selection

The population from which this sample was drawn consisted of Russian, Vietnamese and Cambodian refugees studying English as a second language at Cambodian Mutual Assistance Association (CMAA) or what was formerly Migration and Refugee Resettlement Services (MRRS) in Columbus, Ohio. CMAA is a non-profit organization affiliated with the Office of Refugee Resettlement and the Department of Health and Human Services. Classes at CMAA meet for 12 hours per week, and all refugees must attend 70% of the time to be eligible for government assistance. Students are placed into four different levels depending on their placement test scores. The core curriculum, developed by the Mainstream English Language Training Project (MELT) in conjunction with the Office of Refugee Resettlement, is competency-based with an emphasis on functional language skills.

A population of between 50 to 100 students of each nationality was used to determine the overall relationship between self-assessment estimates and BEST scores. These subjects ranged in age from 18 to 73 years old. All
participants in the study were considered native speakers of their respective languages (Russian, Vietnamese and Khmer). These refugees are sponsored by the following agencies: United States Catholic Conference (USCC), Church World Services (CWS), Cambodian Mutual Assistance Association (CMAA), Lutheran Immigration and Refugee Services (LIRS), Jewish Family Services (JFS), and various private sponsors.

To increase the homogeneity within the population of Russian refugees, only those native of what was formerly the Russian Republic were tested. A high percentage (92%) of these subjects were Jewish. Within the population of Vietnamese learners, 72% were Amerasian or relatives of Amerasians.

To investigate the relationship between native background and self-assessment ratings, the entire population of 218 subjects was divided into three native background groups as specified above.

**Research Design**

This study employed a Pearson Product-Moment correlation to test the null hypothesis of no significant relationship between the overall and individual native background self-assessments and formal test results obtained on the BEST. This statistic was chosen to investigate the nature of functional relationship between the principal variables. Forty-one separate correlations were computed.
These included overall BEST and SAI correlations by language/native background and gender and overall BEST and SAI correlations for the reading and writing sections by language and gender. Correlations were also computed for the three native background groups on each of the eleven sections of the BEST. These were then cross-referenced for analysis.

Variables and Treatment Conditions

There are five variables in this study:

1. self-assessment ratings
2. Basic English Skills Test (BEST) scores
3. native background
4. gender
5. motivational intensity

The first variable in this study, that of self-assessment ratings of functional literacy skills, was measured by an ability statement Likert scale self-assessment instrument (SAI).

Basic English Skills Test scores were the second variable of interest. These were measured by the Literacy Skills section of the BEST. The third and fourth variables, that of the subjects' native background and gender, were nominal variables. Three different native backgrounds were correlated with self-assessment ratings of functional literacy skills and BEST scores.
Motivational intensity, the fifth variable in this study, was measured by a multiple-choice motivational intensity instrument (MII).

**Instrumentation**

**Basic English Skills Test (BEST)**

The instrument selected to measure functional literacy skills in adult refugee ESL learners is the BEST. This instrument was selected because it is a standardized criterion-referenced test that was developed to complement the Mainstream English Language Training Project (MELT) competency-based curriculum currently used by the Office of Refugee Resettlement. The test consists of two sections: a Core section and a Literacy Skills section. The Core section is an individually administered face-to-face interview requiring about 10-15 minutes per examinee. It includes a series of simulated, real-life listening comprehension and speaking tasks, such as telling time, asking for and following directions, counting money to pay for items and verifying change, and conversing socially at an elementary level. These tasks, along with a reading and writing exercise, serve as a screening device to determine which students should take the Literacy Skills section.

The Literacy Skills section is administered either individually or on a group basis and requires a testing time of one hour. This section consists of a variety of reading
and writing tasks. Reading tasks range from recognizing dates on a calendar and understanding food and clothing labels to reading want-ads from the newspaper. Writing tasks include addressing envelopes, writing a rent check, filling out an application form, and writing a short passage on a biographical topic.

The three forms of the BEST (Forms B, C, and D) have been equated by the Center of Applied Linguistics (CAL) and can therefore be used interchangeably (Center for Applied Linguistics, 1984). Test specifications, reliability and validity estimates and scoring reliability statistics can be found in Appendix I. The form used in this study was randomly selected from the three options. The literacy section of the BEST was scored by three experienced raters trained in administering and scoring the BEST. During the scoring, these raters adhered to the directions given in the BEST manual. The average of the three scores became the score used for analysis.

**Self-Assessment Instrument (SAI)**

A self-assessment instrument was developed to elicit subjects' self-perceptions of their functional literacy skills. This instrument took the form of a modified Likert scale and was based on ability statements. The Likert scale used in this study contained five response options ranging from 1 ("I cannot do this at all") to 5 ("I can do this all
Five response options were chosen in an attempt to increase the internal consistency of the scale while making the scale appropriate for those unfamiliar with the concept of self-rating (Anderson, 1988).

The instrument was developed by three experienced teachers of adult refugee ESL. These teachers were asked to write ability statements based on and representative of the ten levels of functional English proficiency found in the Mainstream English Language Training Project (MELT) curriculum. The self-assessment instrument addressed the eleven basic MELT competencies. The researcher along with the teachers came to a consensus on which ability statements to include on the self-assessment instrument.

Before data collection, the self-assessment instrument was translated by two educated native speakers or bilingual translators into each of the three target languages represented in the study. The self-assessment instrument was translated in an effort to ensure total comprehension on the part of the subjects and to decrease the risk of inaccurate self-assessment (Oller and Perkins, 1978). The translations were validated by asking two educated native or non-native speakers of the language to translate the instruments back into English. These translators were asked to provide verbal input to the researcher on any part of the self-assessment instrument that was unclear to them. Any inconsistencies in the instrument were then revised. After
the validation of the self-assessment instruments, data collection began. Subjects were asked to read each of the ability statements in their own L1 and give themselves a score ranging from one to five on the modified Likert scale. The minimum score was therefore 78 while the maximum score was 340.

**Motivational Intensity Instrument (MII)**

The instrument developed to measure level of motivational intensity was the motivational intensity instrument (MII). This measure was used to solicit the learner's level of motivation for learning English. This ten-question multiple-choice instrument was an adaptation of the Gardner and Lambert (1985) Attitude/Motivation Test Battery.

Prior to data collection the MII was translated by two educated native speakers or bilingual translators into each of the three languages represented. As with the SAI, the MII was translated in an effort to ensure total comprehension on the part of the subjects. The validation process for the translations was identical to that of the SAI. After the validation of the MII, data collection began. Subjects were asked to read each of the ten questions in their own L1 and choose one of the three multiple-choice options. The minimum score on this instrument was ten while the maximum score was 30.
Data Collection

Prior to testing, students practiced using similar scales to self-assess other abilities. According to Oskarsson (1977), it is a necessary part of the whole learning process to give students training in self-assessment so that they may develop their abilities to make reliable and valid judgments on their performance and progress.

This study took place on two consecutive days. Participants' agreement to participate in the study was solicited prior to data collection. All subjects volunteering to participate were then asked to sign a 'Human Subjects Consent Form' for protocol number 92B0084 (Appendix H). On the first day, students were issued a personal identification number by nationality. Students were instructed to keep this number and use it on all written materials in lieu of their names. No names were placed on the self-assessment instrument (SAI) to assure student anonymity. Students were then given a copy of the SAI in their native language. In the event that a student was illiterate in his/her L1, a bilingual aide administered the SAI and recorded the student's responses. Students were instructed to complete the survey honestly and to the best of their ability. Students spent as much time as needed to complete the survey. Time spent on the completion of the SAI ranged from 10 minutes to one hour.
On the second day of the study, the Literacy Skills section of the BEST was administered as defined by the procedures in the BEST manual. As indicated in the scoring manual, the teachers were instructed to limit their assistance in explaining procedures by pointing to the directions at the top of the page or by indicating the examples provided. Subjects were instructed to leave anything blank that they did not understand and to go on to the next page. No more than 60 minutes was allowed for this section of the exam. Most subjects took the full hour to complete the test.

Approximately two weeks later the motivational intensity instrument (MII) was administered to each of the native background groups. Subjects were asked to complete the multiple-choice questionnaire in their own native language. As with the administration of the SAI, bilingual translators were present to assist students as needed. Prior to data collection, subjects were asked to be as accurate and honest as possible on the MII. The subjects were given as much time as they needed to complete the MII. No more than fifteen minutes was needed to complete this portion of the data collection.
Scoring

BEST and SAI

All scoring for the BEST and SAI was done on the front and back sides of the separate Literacy Skills Section Scoring sheet (See Appendix G). To facilitate determining separate reading and writing scores, the answers for tasks involving reading appeared on the front page and tasks involving writing appeared on the back page.

For each question, raters wrote the score (0, 1, 2, 3, or 5) in the appropriate parentheses on the scoring sheet. If there was no response (i.e., if a particular item on the student test booklet was left blank), subjects received the score of 0.

In several parts of the test where circling and underlining were called for, alternative forms of answering, such as check-marking, crossing-out and so forth were accepted.

Scoring procedures for individual parts of the BEST are shown below (Center for Applied Linguistics, 1984).

Part 1: Personal Background Form

Each of the 10 items listed on the scoring sheet receives 1 or 0 points, as follows:

1 = response is legible and understandable.

Misspellings are permissible, provided that the intended message is comprehensible in context.

For example, the misspelling of "street" in "364
Main Strete" would be permissible, since it does not affect comprehension in the context of the personal background form. Although the directions for the form itself say "Please print", this is not required to score 1 on these items.

0 = response is illegible and/or not understandable in context or no response is given.

1. Name For 1 point, examinee must write two names, unless he/she only has one name. First and last names should be appropriately placed; researcher will verify name order on examinee's ID (I-94 or Driver's License) after the test.

2. M □ F □ Score 1 if correct box is marked.

3 - 7. Address One point is given for each item. Misspelling that does not affect comprehension is permissible. Accuracy of "Zip Code" is not important as long as it contains five numbers and the first three numbers are appropriate to the area.

8. Place of Birth Any place (country, region, city, etc.) other than the United States is acceptable. Again, misspelling
that does not affect comprehension is permissible. "Kampuchea" is an acceptable alternative to "Cambodia". If both place and date of birth are given, score 1.

9. Sign Here
Signature need not be cursive.

10. Date
Any reasonable date as long as it includes some indication of month, day, and year in a form comprehensible in the United States.

Part 2 - Calendar
For each of the 4 items,
1 = correct date is circled
0 = an incorrect date is circled or no date is circled

Part 3 - Food Labels
Score each item as follows:
1 = correct price is written on the corresponding line. Since this part tests reading comprehension rather than writing per se, the response should be considered correct if the correct numbers are shown, regardless of whether dollar signs are used or other conventions followed. For example, for item 1 in Form B, $1.27 or 1.27 would be
considered correct. If the response does not differentiate dollars from cents in any way, (e.g., "217"), score 0.

0 = a number is written but is not correct, or no response is given

**Part 4 - Clothing Labels**

Same scoring procedure as for Part 3. The spelling of size in response to question #1 in this part must be comprehensible but not necessarily accurate.

**Part 5 - Rent Check**

For each of the 5 items,

1 = item is written in such a way that it would be properly understood and honored by a bank.

0 = response is illegible or would not be understood/honored by a bank, or no response is given.

**Date:** Can be either written out or abbreviated (e.g., November or Nov.), or written in numbers. If in numbers, any order (e.g., 7/14/84 or 14/7/84) is acceptable.

**Addressee:** Check can either be made out to the person specified in the directions or to someone who could be the examinee's own landlord. It
can be made out with or without a preceding "Mr." First name only is insufficient. First initial and last name is OK.

Amount in numbers: 250.00 can be 250.xx, 250 Two hundred fifty------, Two hundred fifty and no/100------, etc. would be acceptable. If the amount is not written comprehensibly in words on the check, a decimal point or other indication of the true value must be provided to score 1 on this item.

Amount in words: Misspellings are OK if comprehensible.

Signature: Signature need not be cursive.

Part 6 - Envelope

2 = For the return address as a whole, provided that the post office would be able to return it on the basis of the information given (no partial credit).

Two points (no partial credit) are also given for sending address as a whole, provided that the post office would be able to deliver it.

Address: The house number and street must be
provided to score 1. Either the house number and street specified in the test or another acceptable address is acceptable. Either city or zip code is OK.

Positioning: The return address must be in the upper left-hand corner and the sending address in the middle to score 1. If position is reversed, even if marked with "To" and "From", score 0. 0 = the address does not meet the standard described above or no response is given

Part 7 - Telephone Directory

For each of the 2 questions,

1 = correct number is circled
0 = incorrect number is circled or no response is given

Part 8 - Train Schedule

1 = correct time is circled
0 = incorrect time is circled or no response is given

Part 9 - Reading Passages

For each item in this part, the correct answer is underlined on the Scoring Sheet. Before entering information in the parentheses, the words that the examinee has circled (or underlined) must be circled on the Scoring Sheet. Then, referring only to the Scoring Sheet itself, a
"1" is awarded in the parentheses for any item that the examinee has answered correctly, a "0" if the examinee has marked a wrong (i.e., non-underlined) answer or if the examinee has not attempted that item (i.e., not marked any answer). If the examinee marks more than one answer, score 0.

Part 10 - Ads, Signs, Notices, etc.

For each item in this part, the correct answer is shown on the scoring sheet. On the solid line provided on the scoring sheet to the right of each item, write the same letter that the examinee has circled. Then, working from the scoring sheet, write "1" in the parentheses if the examinee has circled the correct answer, "0" if a wrong answer has been circled or if the examinee has omitted that item. If more than one answer has been marked, score "0".

Part 11 - Writing Notes

In this part, the examinee is asked to write three or four sentences on the topic given. Responses should be evaluated, as a whole, on the following basis:

5 = an extensive amount of comprehensible information is conveyed in response to the question asked (regardless of grammatical accuracy per se)
3 = a reasonable amount of comprehensible information is conveyed in response to the question asked; examinee shows some attempt at elaboration.
1 = "bare-bones" information (should be awarded if any amount of comprehensible writing is present and if response answers the question asked)
0 = some writing, but not at all responsive to the question or completely incomprehensible or no response is given

No in-between scores (i.e., 2 or 4) are to be awarded.

MII

Points on the MII were transcribed and tabulated by the researcher using a MII Scoring Sheet (Appendix J). Subjects were awarded either one, two or three points depending on the option chosen. These points correspond to the level of motivational intensity found in the Attitude/Motivation Test Battery (Gardner, 1985). Subjects received three points for high level of motivation, two points for medium level of motivation and one point for low level of motivation.

Minimum score possible on the MII was ten and maximum score was 30.

Data Analysis

The subjects' scores on the self-assessment instrument and the BEST were statistically analyzed to estimate the degree to which the variables covary. The total scores on the self-assessment instrument were correlated with those of the BEST, and correlations were computed for each of the
eleven sections of the BEST and self-assessment instrument. In addition, separate correlations for each of the three native background groups were computed to determine whether any significant differences exist among the groups.

Pilot Study

A pilot study was conducted one month prior to the administration of the actual SAI and BEST. The results of the pilot study were used to make modifications in the procedures outlined above. A random sample of twelve adult refugees from the Columbus Public Schools Adult Education Program were used in the pilot study. This number provided four subjects for each of the native backgrounds investigated. The pilot study followed the same procedures described in the previous section.

A major purpose of the pilot study was to further determine the effectiveness of the self-assessment instrument developed by the researcher. Also of concern in the pilot study was the interrater reliability of the teachers scoring the BEST. Interrater reliability was found to be very high among teachers scoring the BEST.

In addition, the pilot study allowed the researcher to determine whether any of the experimental procedures were causing subjects difficulty. The pilot study indicated that no adjustments were needed in these areas.
Null Hypotheses

Ho1 There will be no significant correlation between self-assessment ratings of functional literacy skills and formal Basic English Skills Test results.

Ho2 There will be no significant relationship between the subjects' native background and self-assessment ratings of functional literacy skills and Basic English Skills Test results.

Ho3 There will be no significant relationship between the subjects' gender and self-assessment ratings of functional literacy skills and Basic English Skills Test results.

Ho4 There will be no relationship between level of motivational intensity and self-assessment ratings of functional literacy skills and Basic English Skills Test results.
CHAPTER IV
RESULTS AND DISCUSSION

Introduction

There is research evidence in L2 assessment that supports the notion that L2 learners have the ability to self-assess their second language skills. This research suggests that L2 learners are able to give an accurate assessment of their abilities with the language and that the self-assessment process is particularly relevant in more informal settings, especially for mature learners. Additional evidence suggests that there is a possible correlation between the accuracy of self-assessment ratings and such variables as sex, culture, and native background.

The purpose of the present study was to explore the relationship between self-assessment ratings of functional literacy skills and Basic English Skills Test (BEST) results. More specifically, this study investigated the relationship between such variables as native background and gender and scores obtained on the BEST and self-assessment instrument (SAI) in a population of adult refugee ESL learners. Of secondary interest in this study was the relationship between level of motivational intensity and self-assessment ratings. Self-assessment ratings in this
study were measured by students' responses on a modified Likert Scale SAI. The BEST was the instrument selected to measure functional literacy skills and was classified as a criterion variable for the purposes of this study. Other variables of interest included native background and gender, both of which are nominal variables.

The purpose of the present chapter is to report the analysis of the data after they have been subjected to a series of Pearson Product-Moment Correlations. The results are reported according to the type of analysis.

The Primary Study

To assess the accuracy of adult refugee ESL learner's self-assessments of their functional literacy skills and BEST scores, the following research questions were posited:

1. Is there a relationship between self-assessment ratings of functional literacy skills as measured by an ability statement self-assessment instrument and formal test results on the literacy section of the BEST in adult refugee ESL learners?

2. Is there a correlation between the subjects' native background and self-assessment ratings of functional literacy skills and BEST results?

3. Is there a relationship between the subjects' gender and self-assessment ratings of functional literacy skills and BEST results?
Descriptive Statistics

Reliability

Before statistically comparing the results in this study, the reliability of the testing instruments was established. Reliabilities of the BEST and SAI conducted on the sample were very good with Cronbach alpha coefficients for the BEST at .97 and for the SAI at .99.

Means and Standard Deviations

In comparing overall mean scores for both the SAI and BEST (Table 1), learners obtained an overall mean score of 53.44 on the BEST and a 258.86 on the SAI. This 53.44 mean score on the BEST would place students at the higher end of the fifth 'Student Performance Level (SPL)' (Table 2) as defined by the Center of Applied Linguistics in conjunction with the Office of Refugee Resettlement.

When considering the overall mean scores on the BEST and SAI by language (Table 3), Vietnamese subjects achieved the highest mean of 63.77 and 285.76 on both the BEST and SAI, respectively. The second highest means of 51.27 and 264.69 were attained by the Russian subjects. Cambodian subjects scored the lowest on both the BEST and SAI with mean scores of 39.96 and 205.06.

With regard to the gender variable, male subjects participating in the study scored slightly higher than did the females (Table 4). Mean scores reported by male
subjects on both the BEST and SAI were 55.37 and 265.70 while scores for female subjects were 51.40 and 251.62.

Results of comparing the overall means on the BEST and SAI by both gender and language reveal that Vietnamese males scored the highest on both instruments while Cambodian females scored the lowest (Table 5).

Tables 1, 3, 4 and 5 present the means, standard deviations, and minimum and maximum scores for all subjects and all variables.
### Table 1
Descriptive Statistics for BEST and SAI

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEST</td>
<td>218</td>
<td>53.44</td>
<td>21.24</td>
<td>0.00</td>
<td>78.00</td>
</tr>
<tr>
<td>SAI</td>
<td>218</td>
<td>258.86</td>
<td>71.65</td>
<td>68.00</td>
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</table>

### Table 2
BEST Score Ranges for Student Performance Levels I - VII

<table>
<thead>
<tr>
<th>Student Performance Level</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>0 - 2</td>
</tr>
<tr>
<td>I</td>
<td>3 - 7</td>
</tr>
<tr>
<td>II</td>
<td>8 - 21</td>
</tr>
<tr>
<td>III</td>
<td>22 - 35</td>
</tr>
<tr>
<td>IV</td>
<td>36 - 46</td>
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<tr>
<td>V</td>
<td>47 - 53</td>
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<tr>
<td>VI</td>
<td>54 - 65</td>
</tr>
<tr>
<td>VII</td>
<td>66 - 78</td>
</tr>
</tbody>
</table>
### Table 3
Descriptive Statistics for BEST and SAI by Language

<table>
<thead>
<tr>
<th>Language</th>
<th>n</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
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<td>79.00</td>
<td>340.00</td>
</tr>
<tr>
<td></td>
<td>SAI</td>
<td>83</td>
<td>264.69</td>
<td>54.38</td>
<td>340.00</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>84</td>
<td>63.77</td>
<td>11.09</td>
<td>28.00</td>
<td>78.00</td>
</tr>
<tr>
<td></td>
<td>BEST</td>
<td>285.76</td>
<td>49.37</td>
<td>164.00</td>
<td>340.00</td>
</tr>
<tr>
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<td>SAI</td>
<td>84</td>
<td>285.76</td>
<td>49.37</td>
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</tr>
<tr>
<td>Khmer</td>
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<td>39.96</td>
<td>25.86</td>
<td>0.00</td>
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</tr>
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<td></td>
<td>BEST</td>
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<td>95.71</td>
<td>68.00</td>
<td>340.00</td>
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<tr>
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<td>SAI</td>
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<td>205.06</td>
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### Table 4
Descriptive Statistics for BEST and SAI by Gender

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<thead>
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<th>Gender</th>
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<th>Mean</th>
<th>Std Dev</th>
<th>Min.</th>
<th>Max.</th>
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</thead>
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<td>78.00</td>
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<td>265.70</td>
<td>73.31</td>
<td>340.00</td>
</tr>
<tr>
<td>Female</td>
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<td>21.53</td>
<td>0.00</td>
<td>78.00</td>
</tr>
<tr>
<td></td>
<td>BEST</td>
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<td>69.46</td>
<td>68.00</td>
<td>340.00</td>
</tr>
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<td>SAI</td>
<td>106</td>
<td>251.62</td>
<td>69.46</td>
<td>340.00</td>
</tr>
</tbody>
</table>
Table 5
Descriptive Statistics for BEST and SAI by Language and Gender

<table>
<thead>
<tr>
<th>Language/Gender</th>
<th>n</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>78.00</td>
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<td>SAI</td>
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<td>276.60</td>
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<td>340.00</td>
</tr>
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<td>20.82</td>
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<td>76.00</td>
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<tr>
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<td>55.53</td>
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<td>340.00</td>
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<tr>
<td>SAI</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vietnamese</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
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<td>65.04</td>
<td>11.78</td>
<td>28.00</td>
<td>78.00</td>
</tr>
<tr>
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<td>46.52</td>
<td>196.00</td>
<td>340.00</td>
</tr>
<tr>
<td>SAI</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>42</td>
<td>62.50</td>
<td>10.33</td>
<td>35.00</td>
<td>77.00</td>
</tr>
<tr>
<td>BEST</td>
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<td>276.02</td>
<td>50.77</td>
<td>164.00</td>
<td>340.00</td>
</tr>
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<td>SAI</td>
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<td></td>
</tr>
<tr>
<td>Khmer</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Male</td>
<td>30</td>
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<td>24.41</td>
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<td>78.00</td>
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<td>96.31</td>
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<td>SAI</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>36.86</td>
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<td>340.00</td>
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<tr>
<td>SAI</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Correlational Analysis

Tables 6-8 delineate the correlations between the scores for all variables for all subjects. Of the 41 correlations, 40 are significant at the .0001 level. The remaining correlation, that of BEST and SAI by Vietnamese females, is significant at the .0002 level.

A Pearson Product-Moment Correlation procedure produced a correlation coefficient of .83 ($p < .0001$) between overall scores of BEST and SAI for the total refugee population ($N = 218$). This result indicates a strong relationship between the self-assessment ratings of functional literacy skills and BEST scores.

As shown in Table 6, the correlations between BEST and SAI by language groups are as follows: (a) overall relationship between BEST and SAI for Russian subjects ($N = 83$), .83, (b) overall relationship between BEST and SAI scores for Vietnamese subjects ($N = 84$), .56, and (c) overall relationship between BEST and SAI for Cambodian subjects ($N = 51$), .91. These correlation coefficients indicate a strong relationship between BEST and SAI scores for both Russian and Cambodian refugee learners. The coefficient produced for the Vietnamese learners reflects a moderate to high relationship between BEST and SAI scores.

The same procedures were also calculated for the two instruments by gender. The correlation coefficients for BEST and SAI scores by gender (Table 7) are as follows:
(a) overall relationship between the BEST and SAI for males participating in this study \((N = 112)\), .82 and (b) overall relationship between both instruments for the females in the study \((N = 106)\), .84. These coefficients, both significant at the .0001 level, indicate a strong relationship between scores on the testing instruments and the gender variable. A subsequent ANOVA and t-test procedure were later performed and results indicated no statistically significant differences between means of the two gender groups on either the BEST or SAI.

The researcher also computed Pearson Product-Moment correlations between the BEST and SAI scores by language and gender. Table 8 reflects the correlation coefficients between both instruments for these variables. The correlation coefficients obtained between the BEST and SAI for the Russian subjects were .81 and .84 for males and females, respectively. Correlations for the Cambodian subjects were .87 for males and .97 for females. Vietnamese subjects showed lower correlations at .56 for the males participating in the study and .55 for the females.

Correlations for each section of the BEST and SAI were also computed. Of the 17 correlation procedures, all were significant at the .0001 level. Correlation coefficients ranged from moderate (.47 to .55), moderate to high (.56 to .68) and high (.76). Pearson Product-Moment correlation coefficients and their corresponding levels of significance
are displayed in Table 9. Correlation coefficients are displayed according to their skill area (reading or writing) in the BEST.
Table 6
Pearson Product-Moment
Correlation Coefficients for BEST and SAI
by Language

<table>
<thead>
<tr>
<th>Language</th>
<th>n</th>
<th>r</th>
<th>Level of significance (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian</td>
<td>83</td>
<td>.83</td>
<td>.0001</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>84</td>
<td>.56</td>
<td>.0001</td>
</tr>
<tr>
<td>Khmer</td>
<td>51</td>
<td>.91</td>
<td>.0001</td>
</tr>
</tbody>
</table>

Table 7
Pearson Product-Moment
Correlation Coefficients for BEST and SAI
by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>r</th>
<th>Level of significance (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>112</td>
<td>.82</td>
<td>.0001</td>
</tr>
<tr>
<td>Female</td>
<td>106</td>
<td>.84</td>
<td>.0001</td>
</tr>
</tbody>
</table>
Table 8

Pearson Product-Moment Correlation Coefficients for BEST and SAI by Language and Gender

<table>
<thead>
<tr>
<th>Language/Gender</th>
<th>n</th>
<th>r</th>
<th>Level of significance (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>male</td>
<td>40</td>
<td>.81</td>
<td>.0001</td>
</tr>
<tr>
<td>female</td>
<td>43</td>
<td>.84</td>
<td>.0001</td>
</tr>
<tr>
<td>Vietnamese</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>male</td>
<td>42</td>
<td>.56</td>
<td>.0001</td>
</tr>
<tr>
<td>female</td>
<td>42</td>
<td>.55</td>
<td>.0002</td>
</tr>
<tr>
<td>Khmer</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>male</td>
<td>30</td>
<td>.87</td>
<td>.0001</td>
</tr>
<tr>
<td>female</td>
<td>21</td>
<td>.97</td>
<td>.0001</td>
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</table>
Table 9
Correlations Between SAI and BEST
Scores by Test Section

<table>
<thead>
<tr>
<th>Test Section</th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading</strong></td>
<td></td>
</tr>
<tr>
<td>2. Calendar</td>
<td>.61 *</td>
</tr>
<tr>
<td>3. Food Labels</td>
<td>.68 *</td>
</tr>
<tr>
<td>4. Clothing Labels</td>
<td>.67 *</td>
</tr>
<tr>
<td>7. Telephone Directory</td>
<td>.50 *</td>
</tr>
<tr>
<td>8. Train Schedule</td>
<td>.60 *</td>
</tr>
<tr>
<td>9. Reading</td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>.62 *</td>
</tr>
<tr>
<td>b.</td>
<td>.68 *</td>
</tr>
<tr>
<td>10. Ads, Signs, Notices</td>
<td></td>
</tr>
<tr>
<td>a. Sign</td>
<td>.65 *</td>
</tr>
<tr>
<td>b. Appointment Card</td>
<td>.63 *</td>
</tr>
<tr>
<td>c. DMV</td>
<td>.47 *</td>
</tr>
<tr>
<td>d. Telephone Company</td>
<td>.50 *</td>
</tr>
<tr>
<td>e. Newspaper Ad.</td>
<td>.56 *</td>
</tr>
<tr>
<td>f. Help Wanted Ad.</td>
<td>.55 *</td>
</tr>
<tr>
<td><strong>Writing</strong></td>
<td></td>
</tr>
<tr>
<td>1. Application form</td>
<td>.48 *</td>
</tr>
<tr>
<td>5. Personal check</td>
<td>.76 *</td>
</tr>
<tr>
<td>6. Envelope</td>
<td>.61 *</td>
</tr>
<tr>
<td>11. Notes</td>
<td>.68 *</td>
</tr>
</tbody>
</table>

* p = .0001
n = 218
Separate correlations were computed between BEST and SAI scores for the reading and writing sections of the tests. High correlations were found for both the reading section at .81 and the writing section at .70 (Table 10). These skill areas are further broken down by language and gender. Correlation coefficients for the reading section of the tests (Table 11) are as follows: (a) Russians (N = 83), .83, (b) Vietnamese (N = 84), .44, and (c) Cambodians (N = 51), .88. A one-point difference in correlation separated the males and females on the reading scores. Male subjects (N = 112) scored .80 and female subjects (N = 106) obtained a .81 correlation coefficient (Table 12).

In terms of writing scores, a bigger difference was found between male and female subjects. The correlation coefficients by gender for the writing sections (Table 13) are as follows: (a) males (N = 112), .65 and (b) females (N = 106), .77. The correlation coefficients obtained by language for the three native background groups (Table 14) are as follows: (a) Russian subjects (N = 83), .65, (b) Vietnamese subjects (N = 84), .59 and (c) Cambodian subjects, (N = 51), .83.
### Table 10

Pearson Product-Moment Correlation

Coefficients for Reading and Writing Sections of BEST and SAI

<table>
<thead>
<tr>
<th>Test Section</th>
<th>n</th>
<th>r</th>
<th>Level of significance (p)</th>
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</thead>
<tbody>
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<td>.81</td>
<td>.0001</td>
</tr>
<tr>
<td>Writing</td>
<td>218</td>
<td>.70</td>
<td>.0001</td>
</tr>
</tbody>
</table>

### Table 11

Pearson Product-Moment Correlation

Coefficients for the Reading Section of the BEST and SAI by Language

<table>
<thead>
<tr>
<th>Language</th>
<th>n</th>
<th>r</th>
<th>Level of significance (p)</th>
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</thead>
<tbody>
<tr>
<td>Russian</td>
<td>83</td>
<td>.83</td>
<td>.0001</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>84</td>
<td>.44</td>
<td>.0001</td>
</tr>
<tr>
<td>Khmer</td>
<td>51</td>
<td>.88</td>
<td>.0001</td>
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</tbody>
</table>
### Table 12
**Pearson Product-Moment Correlation**

**Coefficients for Reading Section of BEST and SAI by Gender**

<table>
<thead>
<tr>
<th>Gender</th>
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<th>r</th>
<th>Level of significance (P)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>.0001</td>
</tr>
<tr>
<td>Female</td>
<td>106</td>
<td>.81</td>
<td>.0001</td>
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</tbody>
</table>

### Table 13
**Pearson Product-Moment Correlation**

**Coefficients for Writing Section of BEST and SAI by Gender**

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<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>r</th>
<th>Level of significance (P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>112</td>
<td>.65</td>
<td>.0001</td>
</tr>
<tr>
<td>Female</td>
<td>106</td>
<td>.77</td>
<td>.0001</td>
</tr>
</tbody>
</table>
Table 14
Pearson Product-Moment Correlation
Coefficients for the Writing Section
by Language

<table>
<thead>
<tr>
<th>Language</th>
<th>n</th>
<th>r</th>
<th>Level of significance (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian</td>
<td>83</td>
<td>.65</td>
<td>.0001</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>84</td>
<td>.59</td>
<td>.0001</td>
</tr>
<tr>
<td>Khmer</td>
<td>51</td>
<td>.83</td>
<td>.0001</td>
</tr>
</tbody>
</table>

Analysis of Variance (ANOVA)

In comparing self-assessment and BEST scores across the three native background groups, two one-way analysis of variance (ANOVA) procedures were performed. The results of both ANOVA procedures were found to be significant at the .0001 level. (Tables 15, 16). In order to determine which native backgrounds differed significantly from one another, a series of post-hoc Scheffe tests was performed on the adjusted means. The Scheffe post-hoc test was chosen for its conservativeness and suitability with unequal n's.

For the BEST, the results show that all three native background groups differ significantly. Results for the SAI across native background groups indicate statistically significant differences for all native backgrounds, except between the Russian and Vietnamese groups.
Table 15
Analysis of Variance for
Native Background Groups on BEST

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of squares</th>
<th>Mean square</th>
<th>F</th>
<th>Pr&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>2</td>
<td>18628.93</td>
<td>9314.47</td>
<td>25.26</td>
<td>.0001</td>
</tr>
<tr>
<td>Error</td>
<td>215</td>
<td>79266.79</td>
<td>368.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected</td>
<td>217</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>217</td>
<td>97895.73</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 16
Analysis of Variance for
Native Background Groups on SAI

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of squares</th>
<th>Mean square</th>
<th>F</th>
<th>Pr&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>2</td>
<td>211232.67</td>
<td>105616.34</td>
<td>25.15</td>
<td>.0001</td>
</tr>
<tr>
<td>Error</td>
<td>215</td>
<td>902797.92</td>
<td>4919.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected</td>
<td>217</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>217</td>
<td>1114030.59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Standardized Scores

Raw scores on both the BEST and SAI were converted to standardized scores to express, in terms of standard deviations, the students' scores in relation to how far they differed from the mean. A Z-score statistic was selected for this purpose. Table 17 reflects the standardized scores for the BEST and SAI for each of the three native background groups. An examination of the Z-scores reveals a mean of -0.10 on the BEST and a 0.81 on the SAI for the Russian subjects. These scores reflect a slight tendency to overestimate functional literacy abilities on the part of the Russian subjects. Vietnamese subjects, on the other hand, underestimated their functional literacy abilities with standardized scores of 0.49 and 0.37 on the BEST and SAI, respectively.

Standardized scores for the Cambodian subjects were -0.63 for the BEST and -0.75 for the SAI. These scores reveal a slight underestimation of BEST scores on the part of the Cambodians.
Table 17
Standardized BEST and SAI Values

<table>
<thead>
<tr>
<th>Language/Instrument</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian BEST</td>
<td>83</td>
<td>-0.10</td>
<td>0.98</td>
<td>-2.52</td>
<td>1.16</td>
</tr>
<tr>
<td>Russian SAI</td>
<td></td>
<td>0.81</td>
<td>0.76</td>
<td>-2.51</td>
<td>1.13</td>
</tr>
<tr>
<td>Vietnamese BEST</td>
<td>84</td>
<td>0.49</td>
<td>0.52</td>
<td>-1.20</td>
<td>1.16</td>
</tr>
<tr>
<td>Vietnamese SAI</td>
<td></td>
<td>0.37</td>
<td>0.69</td>
<td>-1.32</td>
<td>1.13</td>
</tr>
<tr>
<td>Khmer BEST</td>
<td>51</td>
<td>-0.63</td>
<td>1.22</td>
<td>-2.52</td>
<td>1.16</td>
</tr>
<tr>
<td>Khmer SAI</td>
<td></td>
<td>-0.75</td>
<td>1.34</td>
<td>-2.66</td>
<td>1.13</td>
</tr>
</tbody>
</table>

Discussion

The Primary Study

Means and Standard Deviations

Native Background

The means and standard deviations obtained on the BEST and SAI reveal some interesting differences between the three native background groups tested. The mean scores on the BEST and SAI for each of the three native background groups are 63.77 and 265.70 for Vietnamese subjects, 51.27 and 264.69 for the Russian subjects and 39.96 and 205.06 for the Cambodians participating in the study. An 11 to 12 point difference in BEST scores was evidenced between each of the three groups. These findings are consistent with the BEST results obtained at Migration and Refugee Resettlement
Services in Columbus, Ohio (M.A. Oestreich, personal communication, June 26, 1992). According to Oestreich, Vietnamese refugee learners tend to score higher on the BEST than Russian and Cambodian learners. A possible explanation for these differences in scores could be the subjects' level of previous education. According to Reder et al (1984), level of previous educational experience is the most important factor in learning English in the United States. He states that persons with higher levels of previous education both arrive in the United States with higher levels of English proficiency and subsequently attain higher levels of English proficiency as well (p. 26). It is important to note, however, that, with the exception of the Russian refugees, level of previous education is almost impossible to verify as many refugees flee their countries without educational documentation and records. Another possible reason for the differences in these scores could be the level of L1 literacy. Although L1 literacy was not a variable of interest in this study, it could have affected the results, particularly those of the Cambodian subjects. According to Longfield (1984), the Southeast Asian refugees who have entered the United States since 1980 generally have had little or no schooling and are semi-literate or non-literate in any language. This is further supported by the high illiteracy rates (52%) reported for Cambodia (World Book Encyclopedia, 1991, p.79). Penfield (1986)
corroborates this idea. She states that although strong literacy traditions are present in these countries, the illiteracy rates among the masses are high. She further states that it is from these masses that the current trend of refugees is coming.

**Gender**

This study confirmed earlier research findings in terms of the gender variable. Males participating in this study scored slightly higher than females on both the BEST and SAI across the three native background groups. Further calculations revealed that a difference of 3.97 points separated males from females on the BEST. This finding is consistent with the Reder (1984) study which found that, in general, men develop more proficiency in English than women. According to Reder, however, most of this difference disappears when educational background is taken into account. He further states that this could be due to the fact that in both countries of origin and in refugee camps, women tend to have less education than men.

It is important to note, however, that this slight difference in scores for the two gender groups may be due to a variety of variables not measured in this study. Two such variables are differential opportunities for contact with English speakers and differential opportunities to attend English as a second language classes. Both of these
variables could be linked to the presence of children in the refugee families. Lack of child care is a major barrier for many women and often prevents female refugees from attending English language training classes (Reder et al., 1984).

Correlational Analysis

Native Background

The findings of this study are consistent with research findings from other self-assessment studies (Achara, 1981; Blanche, 1986; Evers, 1981; LeBlanc & Painchaud, 1981, 1985; Oskarsson, 1978, 1980; Palmer & Bachman, 1981; Raasch, 1979, 1980; Rea, 1981; Von Elek, 1981, 1982). The results of this study support the contention that adult ESL learners are capable of forming quite accurate opinions about their second language abilities.

An examination of the data across the three native background groups reveals interesting differences. Data reveals that Cambodian subjects provided the most accurate self-assessments of their functional literacy abilities (.91). Russian subjects were next with a correlation coefficient of .83 and Vietnamese subjects provided the least accurate self-assessments (.56). The researcher attributes these significant differences to the native background variable.

In a review of the self-assessment literature, Blanche and Merino (1986) term the variety of cultural backgrounds
present in the studies a complication. This analogy proved true in interpreting the data from the present study. The differences in BEST and SAI scores can be explained in several ways.

Vietnamese subjects participating in this study attained the highest mean scores on both the BEST and SAI, yet provided the least accurate self-assessments. This moderate correlation is attributed to underestimation of functional literacy abilities on the SAI. This underestimation is consistent with the research findings in self-assessment. Many educators concluded that their more proficient subjects tended to underrate their abilities (Achara, 1981; Evers, 1981; Ferguson, 1978; Heindler, 1980). One explanation for this underestimation is that personality variables such as self-esteem were not taken into account in this study. According to Wesche et al (1990), part of what is measured by self-report may be self-confidence. There is also evidence that Vietnamese refugees often suffer from feelings of insecurity and low self-esteem (Cohen, 1981).

Russian subjects participating in this study provided high self-assessment ratings of their functional literacy abilities but a tendency to overestimate slightly these abilities was present in the data. This somewhat inflated perception of their functional literacy abilities was contradictory to the self-assessment literature where researchers found that less proficient learners were prone
to overestimating their abilities (Anderson, 1982; Blanche, 1986; Ferguson, 1978; Heilenman, 1990; Heindler, 1980; Janssen-Van Dieten, 1989). A possible explanation for this slight overestimation on the part of the Russian subjects was posited by Luria (1976) and Papalia (1976). These researchers collected self-perception data from adults in the USSR and found that subjects linked responses on the self-perception instrument to their level of education. Solon (1985) also found that Eastern European refugees had very high expectations regarding education and that their cultural values were linked to academic performance.

Cambodian subjects obtained the lowest mean scores on the BEST and SAI but provided the most accurate self-assessments of their functional literacy abilities. A slight tendency to underestimate was also present in the data, and this tendency was consistent with the research studies described above. The reason for this high correlation is not known, but it has been suggested that Cambodian learners, in general are less competitive than other refugee learners. This lack of competitiveness could have affected the findings in this study (M.A. Oestreich, personal communication, June 26, 1992). Another possible explanation for this finding is a fear of a promotion to a level above their ability (B. Seebart, personal communication, June 21, 1992). According to Seebart, Cambodian learners traditionally fear moving to a class that
is above their level and this fear could have been a deterrent to overestimation.

**Gender**

An interesting finding emerges from a comparison of the gender correlations across the three native background groups. Although mean scores were higher for the males participating in this study, females gave more accurate self-assessment ratings. This is consistent for all three native background groups except the Vietnamese where a one point difference separates males from females.

Although researchers have suggested that the gender variable might influence self-assessment ratings, results of this study found no significant differences between male and female groups.

**Test Sections**

The correlations for each of the 11 sections of the BEST also revealed some interesting findings. Correlation coefficients on the BEST sections ranged from moderate (.47 to .55), moderate to high (.56 to .68) and high (.76). These differences are attributed to the functional literacy task involved in each section. The lowest correlations on the test were found to be the 'Department of Motor Vehicles' reading (.47), the 'Personal Background' form (.48), the 'Telephone Directory' (.50) and the 'Telephone Company'
reading (.50). An examination of these test sections revealed some interesting results that are described below.

Part 7 of the BEST asked subjects to locate two telephone numbers on a sample page from a telephone directory. The researcher attributes the moderate correlation on this section to the second question which asks students to locate Dr. Hyde's office number. The percentage of students missing this question was high due to the fact that they did not link the abbreviation phys. with Dr..

It is not known why such moderate correlations (.47 and .50) exist for Part 10, sections c. and d., which asks subjects to read excerpts from a Department of Motor Vehicles manual and information from the telephone company about 911. These moderate correlations were not anticipated because most refugees participating in the study have driver's licenses and would in all likelihood be familiar with driving laws and rules in the United States. In addition, most of the participants in this study have either viewed a video about 911 or attended a workshop given by the Columbus Fire Department where the exact procedures for calling 911 were discussed.

A moderate correlation of .48 was also computed for Part 1 of the BEST. This section asked subjects to complete a sample personal background form. In an analysis of the test scores, name placement (last, first), sex and signature
were found to cause subjects the most difficulty. Although the information sought in this section seems to be the most basic on the BEST, the moderate correlation was anticipated. One possible explanation for this correlation is that in many refugee households, the task of filling out forms is often relegated to the older children who generally have more English language proficiency than the adults (Weinstein-Shr, 1984).

Perhaps the most surprising finding to emerge from this study was the high correlation (.76) on Part 5. This section asks subjects to make out a personal check to their landlord for one month's rent. A low correlation on this particular section was anticipated because a review of the literature revealed that many adult refugees, particularly the Southeast Asians, do not put their money in the bank for fear of having it taken by public assistance or the welfare system (Weinstein-Shr, 1984). In fact, many adult refugees tend to purchase money orders to pay bills, rather than write personal checks.

The Secondary Study

The second study consisted of a series of Pearson Product-Moment correlations to investigate the relationship between level of motivational intensity with BEST and SAI scores.
The following research question guided the secondary study:

1) Is there a relationship between the subjects' level of motivational intensity and self-assessment ratings of functional literacy skills and BEST results?

Descriptive Statistics

Means and Standard Deviations

The mean score for motivational intensity as measured by the MII (N= 218) is 25.53 and the standard deviation is 3.93 across the native background groups. Although the range of possible scores is 10 to 30, the lowest score attained is 16 while the highest is 30. Means, standard deviations, and minimum and maximum scores were also computed for each of the three native background groups. Russian subjects scored a mean of 26.10 and standard deviation of 3.90. The minimum and maximum scores for this group of subjects was 16 and 30, respectively. Vietnamese subjects scored slightly higher than did the Russians with a mean score of 26.49 and standard deviation of 2.85. Minimum and maximum scores reported for Vietnamese subjects were 19 and 30 on the MII. The lowest mean score on the MII was reported for the Cambodian subjects at 23.04 with a standard deviation of 4.52. The lowest score obtained for the
Cambodian subjects on the MII is 16 and the highest is 30. Table 19 reveals the means, standard deviations, and minimum and maximum scores achieved by the three native background groups.

Table 18
Descriptive Statistics for MII by Language

<table>
<thead>
<tr>
<th>Language</th>
<th>n</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian</td>
<td>83</td>
<td>26.10</td>
<td>3.90</td>
<td>16.00</td>
<td>30.00</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>84</td>
<td>26.49</td>
<td>2.85</td>
<td>19.00</td>
<td>30.00</td>
</tr>
<tr>
<td>Khmer</td>
<td>51</td>
<td>23.04</td>
<td>4.52</td>
<td>16.00</td>
<td>30.00</td>
</tr>
</tbody>
</table>

Correlational Analysis

Tables 20 and 21 delineate the correlations between the scores on the MII, SAI and the BEST. Of the eight correlations, all are significant at the .0001 level.

A Pearson Product-Moment Correlation procedure produced a correlation coefficient of .75 between overall scores of the MII and the BEST. The correlation coefficient produced for the MII and SAI was slightly lower at .67. Both of
these statistics indicate a moderate to high relationship between scores on the MII, SAI and BEST.

The same procedure was also calculated for each of the three native background groups. The correlation coefficients for the MII and BEST scores by language are as follows: (a) Russian subjects (N = 83), .63; (b) Vietnamese subjects (N = 84), .74, and (c) Cambodian subjects (N = 51), .87.

The correlation coefficients calculated for the MII and SAI by language are as follows: (a) Russian subjects (N = 83), .45, (b) Vietnamese subjects (N = 84), .59, and (c) Cambodian subjects (N = 51), .79.

An examination of Table 20 reveals that MII scores correlate more highly with BEST scores than with SAI scores across the three native background groups.

Table 19
Pearson Product-Moment Correlations between Overall Scores on the MII, SAI and BEST

<table>
<thead>
<tr>
<th>Instrument</th>
<th>n</th>
<th>r</th>
<th>Level of significance (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEST/MII</td>
<td>.75</td>
<td></td>
<td>.0001</td>
</tr>
<tr>
<td>SAI/MII</td>
<td>.67</td>
<td></td>
<td>.0001</td>
</tr>
</tbody>
</table>
Table 20

Pearson Product-Moment Correlations between MII, SAI and BEST by Language

<table>
<thead>
<tr>
<th>Language</th>
<th>n</th>
<th>r</th>
<th>Level of significance (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russians</td>
<td>83</td>
<td>.63</td>
<td>.0001</td>
</tr>
<tr>
<td>MII/BEST</td>
<td></td>
<td>.45</td>
<td></td>
</tr>
<tr>
<td>MII/SAI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vietnamese</td>
<td>84</td>
<td>.74</td>
<td>.0001</td>
</tr>
<tr>
<td>MII/BEST</td>
<td></td>
<td>.59</td>
<td></td>
</tr>
<tr>
<td>MII/SAI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Khmer</td>
<td>51</td>
<td>.87</td>
<td>.0001</td>
</tr>
<tr>
<td>MII/BEST</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MII/SAI</td>
<td></td>
<td>.79</td>
<td>.0001</td>
</tr>
</tbody>
</table>

The Secondary Study

Means and Standard Deviations

Motivational Intensity

Mean scores and standard deviations on the MII reveal that all subjects participating in the study had a high level of motivational intensity. Further calculations for the MII across the three native background groups found that Vietnamese and Russian subjects were separated by a mere .39 mean point difference. Therefore, according to the findings of this study, Vietnamese subjects attained a slightly higher level of motivation than did the Russian subjects. Cambodian subjects participating in the study had the lowest level of motivation across the three native background groups. These findings are consistent with the adult
education literature. According to LeBlanc and Painchaud (1984), adult learners usually have higher levels of motivation than traditional learners as they often have specific goals and expectations in mind when they place themselves in a learning situation. Therefore, it is not surprising that adult refugee learners have high levels of motivation for learning English.

Results of the Statistical Hypotheses

Following are the specific results for each null hypothesis tested in this study:

Ho1: There will be no significant correlation between self-assessment ratings of functional literacy skills as measured by an ability statement self-assessment instrument (SAI) and formal Basic English Skills Test (BEST) results. A Pearson Product-Moment procedure produced a correlation coefficient of .83 between overall BEST and SAI scores for the total refugee population (N = 218). This result indicates a strong relationship between the self-assessment ratings of functional literacy skills and BEST scores. The null hypothesis is, therefore, rejected.

Ho2: There will be no significant relationship between the subjects' native background and self-assessment ratings of functional literacy skills and BEST results.
In comparing the correlation coefficients for each of the three native background groups, the coefficients produced were as follows: (a) overall relationship between the BEST and SAI for Russian subjects ($N = 83$), .83, (b) overall relationship between the BEST and SAI for Vietnamese subjects ($N = 84$), .56, and (c) overall relationship between BEST and SAI for Cambodian subjects ($N = 51$), .91. These correlation coefficients indicate a strong relationship between BEST and SAI scores for both Russian and Cambodian refugee learners. The coefficient produced for the Vietnamese learners indicates a moderate to high relationship between BEST and SAI scores. Subsequent analysis of variance procedures found significant differences at the .0001 level. A Scheffe test found that all native background groups differed significantly on the BEST. Results for the SAI indicated statistically significant differences for all native background groups except the Russian and Vietnamese subjects. Therefore, the null hypothesis is rejected for all native background groups on the BEST and retained for the Russian and Vietnamese groups on the SAI.

$Ho3$: There will be no significant relationship between the subjects' gender and self-assessment ratings of functional literacy skills and BEST results.
An analysis of variance procedure and post-hoc t-test indicated no statistically significant differences between the two gender groups on either the BEST or SAI. The null hypothesis is, therefore, retained.

Ho4: There will be no relationship between motivational intensity and self-assessment ratings of functional literacy skills and BEST results.

Pearson Product-Moment correlation coefficients reveal a moderate to high relationship between scores on the MII, SAI and the BEST. An examination of these coefficients reveals, however, that MII scores correlate more highly with BEST scores than with SAI scores. Therefore, the null hypothesis is rejected.
CHAPTER V
SUMMARY AND RECOMMENDATIONS

Summary of Findings

A review of the findings reveals a strong relationship between the self-assessment ratings of functional literacy skills and Basic English Skills Test (BEST) scores in adult refugee ESL learners. Significant differences exist for each of the three native background groups investigated on the BEST and for all native background groups except between Russian and Vietnamese subjects on the self-assessment instrument (SAI). A summary of the major research questions investigated follows.

Questions 1 & 2 Is there a relationship between self-assessment ratings of functional literacy skills as measured by an ability statement self-assessment instrument and formal test results on the literacy section of the BEST in adult refugee ESL learners? Is there a correlation between the subjects' native background and self-assessment ratings of functional literacy skills and BEST results?

In a series of Pearson Product-Moment Correlation procedures, the data revealed a correlation coefficient of .83 between overall BEST and SAI scores for the total refugee population. This result indicates a strong relationship between the self-assessment ratings of functional literacy skills and BEST scores. This finding is
consistent with research findings from other self-assessment studies.

An analysis of the data by native background group found that Cambodian subjects produced the most accurate self-assessments (.91) of their functional literacy abilities. Russian subjects participating in the study also showed high correlations (.83) between the BEST and SAI. Vietnamese subjects provided the least accurate self-assessments of their functional literacy abilities (.56). Subsequent analysis of variance procedures found significant differences at the .0001 level. Further post-hoc tests found that all native background groups differed significantly on the BEST. Results for the SAI indicated statistically significant differences for all native background groups except between the Russian and Vietnamese subjects.

Question 3 Is there a relationship between the subjects' gender and self-assessment ratings of functional literacy skills and BEST results?

The inclusion of gender into the analyses as a nominal variable did not alter the outcome of the study. Results of this study confirmed earlier research findings in terms of the gender variable. Males participating in this study scored slightly higher than did the females on the BEST and SAI across the three native background groups. Females, however, provided more accurate self-assessments of their functional literacy abilities. Despite these differences,
an analysis of variance procedure and post-hoc t-test indicated no statistically significant differences between the two gender groups on either the BEST or SAI.

**Question 4** Is there a relationship between the subjects' level of motivational intensity as measured by multiple-choice motivational intensity instrument (MII) and self-assessment ratings of functional literacy skills and BEST results?

This study also sought to provide information about the relationship of the subjects' level of motivational intensity and self-assessment ratings of functional literacy skills as measured by the BEST and SAI. An analysis of the descriptive data reveals that all subjects scored themselves as having high levels of motivational intensity on the MII. A series of Pearson Product-Moment Correlation procedures revealed a moderate to high relationship between scores of the three instruments. The correlation coefficient for overall scores on the MII and BEST was .75. The correlation produced for the MII and SAI was slightly lower at .67. An examination of these findings reveals that MII scores correlate more highly with BEST scores than with SAI scores.

**Conclusions**

The results of the study reported above, along with a number of others, generally support the contention that adult learners are capable of forming highly reliable assessments about their second language abilities. There is also evidence to suggest that the native background variable
is an important one in terms of the accuracy of self-assessment ratings of functional literacy skills. The three native backgrounds investigated in this study differ significantly on BEST scores and significant differences were found to exist between all native background groups except the Russian and Vietnamese subjects on the SAI.

Several reasons can be hypothesized as to why the differences between the native backgrounds exist. Level of previous education, L1 literacy, and personality variables such as self-esteem may be factors. The reasons for these differences are not yet known, but it is clear that the results of this study are different from those of similar self-assessment studies in that this study focuses on a variable as yet untested, that of the subjects' native background and its effect on self-assessment ratings of functional literacy skills and BEST results. Further research will be needed in this area to clarify these findings.

**Pedagogical Implications**

Self-assessment questionnaires can be a reliable tool for placement and their advantages in the placement process are evident. First, such tests are efficient and economical (Heilenman, 1991). Self-assessment questionnaires can be taken home, filled out at the students' leisure and returned to the placement center. This procedure eliminates a need
for tight test security. Self-assessment procedures are particularly relevant for the adult refugee learner as there is no incentive for these learners to either over- or underestimate their literacy abilities and dishonesty is not a concern. And while the administration of the BEST takes one hour and an additional 30 minutes to grade, the SAI takes approximately 15 minutes to administer and five minutes to score. In addition, a self-assessment questionnaire can more efficiently sample language behaviors than a direct or even indirect measure of proficiency can. Therefore, areas that are normally left untested because of time constraints (speaking and writing) or lack of facilities (listening) can become part of the placement procedure (Heilenman, 1991, p. 95). Finally, in a student-centered program such as that of an adult refugee program, it makes sense to involve the student in the assessment process. Self-assessment procedures involve students to a greater degree than other placement instruments. Therefore, students find themselves responsible, at least in part, for their own placement.

Increased learner involvement is a second advantage. As with the Von Elek (1985) study, one of the most important findings of this study was that the SAI was very popular with the students. After data collection, students were eager to find out the results and to see what sort of profile their scores would yield.
Shared participation in the assessment process is a third implication of this study. Incorporating self-assessment evaluation procedures in language testing induces learners as well as teachers to regard assessment as a mutual responsibility not as the sole responsibility of the teacher. This shared responsibility would allow teachers a greater flexibility in curriculum planning and more opportunity to work individually with students.

**Recommendations for Further Research**

In order to support the conclusions of this study, research in other adult refugee ESL settings is needed. Equally essential is research investigating the refugee learner's previous educational experience and L1 literacy and their effects on self-assessment accuracy.

The first recommendation is for replication of this study with other refugee native background groups. Subjects in this study were grouped according to native background. Because results of this study indicated that native background played a role in the accuracy of these self-assessments, further studies should focus on other native background groups. Additionally a more specific study of features of native background might also reveal important data.

Further research in L2 self-assessment accuracy should include an examination of such personality variables as
learner self-esteem. Research in this area might prove fruitful in explaining some of the present findings.

Experimental studies are also needed to examine the functional language skills not investigated in this study. These skills include listening and speaking as measured by the Core section of the BEST.

Additional variables that need to be singled out and investigated are the learners' age, level of cognitive development, and the amount of previous English language instruction. An investigation of these variables and their effects on self-assessment accuracy could provide valuable information to L2 self-assessment researchers.

Limitations

The following limitations should be considered when examining the results of this study:

1) Sample Size: The sample size of the Cambodian group was significantly smaller than that of the other two native background groups.

2) Task measured: This study focused solely on the self-assessment of functional literacy and Basic English Skills Test results. The skills tested in the Core section of the BEST (listening and speaking) were not included in this study.
APPENDIX A.

SELF-ASSESSMENT INSTRUMENT: ENGLISH
SELF-ASSESSMENT INSTRUMENT (SAI)

Instructions: Please rate your abilities in English by completing the following questionnaire. For each statement evaluate yourself according to this scale:

1  I cannot do this at all.  (never)
2  I can seldom do this.  (seldom)
3  I can sometimes do this.  (sometimes)
4  I can often do this.  (often)
5  I can do this all the time.  (always)

Score Code: (1) never; (2) seldom; (3) sometimes; (4) often; (5) always

Part 1: Application Form

1. I can correctly and accurately fill in the following information on an application form:
   a. Last name, first name 1 2 3 4 5
   b. Sex 1 2 3 4 5
   c. Street address 1 2 3 4 5
   d. City 1 2 3 4 5
   e. State 1 2 3 4 5
   f. Zip code 1 2 3 4 5
   g. Date of birth (month/day/year) 1 2 3 4 5
   h. Signature 1 2 3 4 5
   i. Date 1 2 3 4 5

Part 2: Calendars

2. I can read and locate dates both in written and numerical form on a calendar:
   a. Written form 1 2 3 4 5
      (ex. December 9, 1991 or Dec. 9, 1991)
   b. Numerical form 1 2 3 4 5
      (ex. 12-9-91)

Part 3: Food labels

3. I can recognize the following information on food labels:
   a. Price 1 2 3 4 5
   b. Price per pound 1 2 3 4 5
Part 4: Clothing Labels

4. I can recognize the following information on clothing labels:
   a. Price
   b. Size
   c. Sale price

Part 5: Personal Checks

5. I can fill-out the following information on a rent check:
   a. Date
   b. Addressee (to whom the check is written)
   c. The amount in numbers
   d. The amount in words
   e. Signature

Part 6: Addressing Envelopes

6. I can address an envelope to my landlord with the following information:
   a. Return address
      (includes name, street address, city, state and zip code)
   b. Landlord's address
      (includes name, street address, city, state and zip code)

Part 7: Telephone Directory

7. I can find telephone numbers in a telephone directory.
Part 8: Train Schedule

8. I can answer questions about a train schedule.  1 2 3 4 5

Part 9: Reading/Grammar

9. I can select the correct word of three choices when reading a short paragraph about:
   a. Driving in the U.S.  1 2 3 4 5
   b. A PTA letter  1 2 3 4 5

Part 10: Reading

10. I can read and answer questions about the following:
    a. Store hours  1 2 3 4 5
    b. A doctor's appointment card  1 2 3 4 5
    c. A prescription label  1 2 3 4 5
    d. A state motor vehicle manual  1 2 3 4 5
    e. The telephone company  1 2 3 4 5
    f. A newspaper ad for an apartment  1 2 3 4 5
    g. A help wanted ad in the newspaper  1 2 3 4 5

Part 11: Writing Notes/Messages

11. I can write a short note to my landlord asking him to fix a problem in my apartment.  1 2 3 4 5

12. I can write a short note to an American friend explaining why I can't come to his/her house for dinner.  1 2 3 4 5
APPENDIX B.

SELF-ASSESSMENT INSTRUMENT: RUSSIAN
ТЕСТ ДЛЯ САМООЦЕНКИ

Инструкция: оцените, пожалуйста, Ваши возможности в английском языке, заполнив следующую анкету. Для каждого утверждения выберите ответ в соответствии с приведенной шкалой:

1. Совсем не умею этого делать. (никогда)
2. Могу делать это редко. (редко)
3. Могу делать это иногда. (иногда)
4. Могу делать это часто. (часто)
5. Могу делать это всегда. (всегда)

Очень: (1) никогда, (2) редко,
(3) иногда; (4) часто, (5) всегда

Часть 1. Заявление

1. Я могу правильно и точно указать следующие данные в заявлении:
   а. Фамилию 1 2 3 4 5
   б. Имя 1 2 3 4 5
   в. Пол 1 2 3 4 5
   г. Номер дома и улицу 1 2 3 4 5
   д. Город 1 2 3 4 5
   е. Штат 1 2 3 4 5
   ж. Индекс 1 2 3 4 5
   з. Дату рождения (месяц/день/год) 1 2 3 4 5
   и. Подпись 1 2 3 4 5
   к. Дату 1 2 3 4 5

Часть 2. Календарь

2. Я могу прочитать в календаре и написать даты как прописью так и числом:
   а. Прописью 1 2 3 4 5
   (мр., 9 декабря 1991 года или 9 дек. 1991 г.)
Часть 3. Ценники на продуктах

3. Я могу распознать на продуктовых ценниках следующее:
   a. Цену
   b. Цену за шт. или уп.

Часть 4. Ценники для одежды

4. Я могу распознать следующую информацию на ценниках для одежды:
   a. Цену
   b. Размер
   c. Продажную цену

Часть 5. Расчетные чеки

5. Я могу внести в чек для оплаты квартиру следующие данные:
   a. Дату
   b. Адресата (кому выписан чек)
   c. Сумму числом
   g. Сумму прописью
   d. Подпись

Часть 6. Конверты с адресом

6. Я могу надписать на конверте для моего квартиросдатчика:
105

Часть 7. Телефонная книга

7. Я могу найти номер телефона в телефонной книге.

Часть 8. Расписание движения поездов

8. Я могу ответить на вопросы о расписании движения поезда.

Часть 9. Чтение/Грамматика

9. Я могу правильно выбрать одно слово из трех при чтении короткого абзаца о:

а. Вождении машины в США

б. Брошюре ассоциации "Родители-учителя"

Часть 10. Чтение

10. Я могу прочитать и ответить на вопросы о:

а. Расписании работы магазина

б. Номере у врача

в. Рецепте для лекарства

г. Правилах вождения машины в штате
Оцените (1) никогда, (2) редко; (3) иногда, (4) часто, (5) всегда:

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Часть 11. Написание записок

11. Я могу написать короткую записку моему квартирросдатчику, в которой попрошу его устранить неполадку в моей квартире. 1 2 3 4 5

12. Я могу написать короткую записку американскому другу с объяснением, почему я не могу прийти к нему/к ней на ужин. 1 2 3 4 5
BAI TỬ ĐÁNH GIA

Hướng Dẫn: Vui lòng đánh giá khả năng Anh Ngữ của bạn bằng cách trả lời các câu hỏi bên dưới. Tự xếp loại sức của bạn bởi các mèn như sau đây:

1. Tối không thể làm được gì hết. (không bao giờ)
2. Tối ít khi có thể làm được cái này. (ít khi)
3. Tối thỉnh thoảng có thể làm được cái này. (thỉnh thoảng)
4. Tối thường có thể làm được cái này. (thường)
5. Tối lúc nào cũng có thể làm được cái này. (luôn luôn)

Phần 1: Mẫu Đơn Xin

1. Tôi có thể điền đúng và chính xác theo các câu hỏi trên mẫu này:
   a. Họ 1 2 3 4 5
   b. Tên 1 2 3 4 5
   c. Phái 1 2 3 4 5
   d. Địa chỉ 1 2 3 4 5
   e. Thành phố 1 2 3 4 5
   f. Tiểu bang 1 2 3 4 5
   g. Số bụi chính 1 2 3 4 5
   h. Ngày sinh (tháng/ngày/năm) 1 2 3 4 5
   i. Chữ ký 1 2 3 4 5
   j. Ngày 1 2 3 4 5

Phần 2: Niên Lịch

2. Tôi có thể đọc và xác định được cả mẫu viết lần mẫu số
trên lịch:

a. Mẫu viết
   (ví dụ: December 9, 1991 hay Dec. 9, 1991)

b. Mẫu số
   (ví dụ: 12-9-91)

Phần 3: Nhận Giá của Thực Phẩm

3. Tôi có thể nhận biết được những hướng dẫn trên nhận giá của thực phẩm.
   a. Giá
   b. Giá mới pound

Phần 4: Nhận Giá của Quần Áo

4. Tôi có thể nhận biết được những hướng dẫn trên nhận giá của quần áo.
   a. Giá
   b. Cộ
   c. Giá bán

Phần 5: Ngân Phiếu Cá Nhân

5. Tôi có thể điện theo hướng dẫn trên một ngân phiếu trả tiền mượn:
   a. Ngày
   b. Địa chỉ (đến người mượn ngân phiếu được viết cho)
   c. Tổng số tiền viết bằng số
   d. Tổng số tiền viết bằng chữ
Phần 6: Điện Địa Chỉ trên Phong Bi
6. Tôi có thể điện địa chỉ cho người chủ đặt của tôi theo những hướng dẫn sau:
a. Địa chỉ hỏi âm 1 2 3 4 5
   (bao gồm tên, địa chỉ, thành phố, tiểu bang và số nuôi chính)
b. Địa chỉ của người chủ đặt 1 2 3 4 5
   (bao gồm tên, địa chỉ, thành phố, tiểu bang và số nuôi chính)

Phần 7: Hướng Dẫn Điện Thoai
7. Tôi có thể tìm được số điện thoại 1 2 3 4 5 trong cuon hướng dẫn điện thoại.

Phần 8: Lịch Trình Xe Lửa
8. Tôi có thể trả lời những câu hỏi 1 2 3 4 5 về lịch trình của một tuyến xe lửa.

Phần 9: Đọc/Văn Phạm
9. Tôi có thể chọn đúng câu trả lời trong ba câu hỏi khi đọc:
   một đoạn văn ngắn về:
a. Lại xe ở nước Mỹ 1 2 3 4 5
b. Một lá thơ của PTA 1 2 3 4 5
Phần 10: Bộc
10. Tôi có thể trả lời các câu hỏi về những vấn đề sau:
   a. Giao mô và động của tiêm 1 2 3 4 5
   b. Giấy hẹn của bác sĩ 1 2 3 4 5
   c. Nhân hưởng dán xử dụng thuốc 1 2 3 4 5
   d. Sách hướng dẫn luật lưu thông của tiêu bảng 1 2 3 4 5
   e. Công ty điện thoại 1 2 3 4 5
   f. Một quảng cáo về cho muốn phê 1 2 3 4 5
   g. Một quảng cáo về tìm việc 1 2 3 4 5

Phần 11: Ghi chép những vấn đề cần chú ý/ Tin Nhân
11. Tôi có thể viết một đoạn thư ngắn cho chủ đạt của tôi để nhờ sửa một vấn hụ hống trong cản phê của tôi. 1 2 3 4 5
12. Tôi có thể viết một đoạn thư ngắn cho một người bạn Mỹ để giải thích tại sao tôi không thể đến nhà người ấy ăn tối được. 1 2 3 4 5
APPENDIX D.

SELF-ASSESSMENT INSTRUMENT: KHMER
ការប្រកួតប្រជែងរបស់ស្តីពីវិទ្យាយស្រាយដែលបានជួបប្រៀបធៀបទៅកាន់ការឆ្លើងស្រ្តក្នុងការបង្កើតកម្មវិធីជាតិដែលមានប្រយោជន៍នៅក្នុងប្រទេសកម្ពុជា ។

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ការរួមបញ្ចាក់

2. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

1. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

3. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

4. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

5. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

6. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

7. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

8. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

9. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

10. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

11. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

12. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

13. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

14. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

15. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ

16. ការរួមបញ្ចាក់ចំណាត់ដឹកនាំក្នុងប្រការការផ្សេងៗអំពីការប្រការ
APPENDIX E.

BASIC ENGLISH SKILLS TEST
PLEASE NOTE

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117-137, Appendix E
139, Appendix F
141-142, Appendix G

University Microfilms International
APPENDIX G.

BASIC ENGLISH SKILLS TEST SCORING SHEET
CONSENT FOR PARTICIPATION IN
SOCIAL AND BEHAVIORAL RESEARCH

I consent to participating in (or my child's participation in) research entitled:

The Relationship Between Self-Assessment Ratings of Functional Literacy Skills and Basic English Skills Test Results in Adult Refugee ESL Learners

Dr. Gilbert A. Jarvis or his/her authorized representative has explained the purpose of the study, the procedures to be followed, and the expected duration of my (my child's) participation. Possible benefits of the study have been described as have alternative procedures, if such procedures are applicable and available.

I acknowledge that I have had the opportunity to obtain additional information regarding the study and that any questions I have raised have been answered to my full satisfaction. Further, I understand that I am (my child is) free to withdraw consent at any time and to discontinue participation in the study without prejudice to me (my child).

Finally, I acknowledge that I have read and fully understand the consent form. I sign it freely and voluntarily. A copy has been given to me.

Date: ___________________________ Signed: ___________________________

(Participant)

Signed: ___________________________

(Principal Investigator or his/her Authorized Representative)

Signed: ___________________________

(Person Authorized to Consent for Participant - If Required)

Witness: ___________________________

HS-027 (Rev. 3/87) — (To be used only in connection with social and behavioral research.)
APPENDIX I.

BASIC ENGLISH SKILLS TEST (BEST)

RELIABILITY STATISTICS
Basic English Skills Test (BEST)
Reliability Statistics

Reliability and Validity Estimates

Internal consistency (KR-20) reliability estimates for the items comprising each of the subscales of each form of the Literacy Skills section of the BEST are listed below.

<table>
<thead>
<tr>
<th>Literacy Skills Section</th>
<th>Form B (N = 308)</th>
<th>Form C (N = 307)</th>
<th>Form D (N = 304)</th>
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<tbody>
<tr>
<td>Reading</td>
<td>.957</td>
<td>.968</td>
<td>.956</td>
</tr>
<tr>
<td>Writing</td>
<td>.899</td>
<td>.909</td>
<td>.903</td>
</tr>
<tr>
<td>Total</td>
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<td>.972</td>
<td>.966</td>
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Scoring Reliability

<table>
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<tr>
<th>Literacy Skills Section</th>
<th>Form B (N = 14)</th>
<th>Form C (N = 16)</th>
<th>Form D (N = 19)</th>
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</thead>
<tbody>
<tr>
<td>Reading</td>
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<td>.999</td>
<td>.999</td>
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<tr>
<td>Writing</td>
<td>.999</td>
<td>.982</td>
<td>.984</td>
</tr>
</tbody>
</table>
APPENDIX J.

MOTIVATIONAL INTENSITY INSTRUMENT

SCORING SHEET
PLEASE NOTE

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148, Appendix J
150-151, Appendix K
153-154, Appendix L
156-158, Appendix M
160-161, Appendix N

University Microfilms International
APPENDIX K.

MOTIVATIONAL INTENSITY INSTRUMENT: ENGLISH
APPENDIX L.

MOTIVATIONAL INTENSITY INSTRUMENT: RUSSIAN
APPENDIX M.

MOTIVATIONAL INTENSITY INSTRUMENT: VIETNAMESE
APPENDIX N.

MOTIVATIONAL INTENSITY INSTRUMENT: KHMER
APPENDIX O.

DATA
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3113
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REFERENCES


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