There has been a growing awareness and concern in recent years about the language proficiency and academic preparedness of refugee/immigrant students at the post-secondary level. Using this population at the General College, University of Minnesota, as subjects, this paper investigate's the relationship between English language proficiency, as measured by standardized language proficiency tests, educational background in L1 and L2, length of residency in the United States, and academic success, as measured by second-year grade point average. Subjects were 52 students enrolled in an academic "bridge" program for refugee/immigrant students at the University of Minnesota. Basic information was collected about the students from various sources: the Michigan English Language Assessment Battery (MELAB); a school profile questionnaire; the Michigan Test of English Language Proficiency; the Michigan Aural Comprehensive Test; and test scores on various academic aptitude examinations. Results showed a negative correlation between years of education completed in the United States, length of residency in the United States and academic success. The most important predictor of academic success was the number of years of schooling completed in the student's native country, followed by the student's objective test score on the MELAB. Results suggest that the refugee/immigrant students at highest risk at the post-secondary level are those who experienced interruption in their education and completed high school in the United States. Implications of these findings and directions for future research are discussed. (Contains 56 references.) (GLR)
Language Proficiency and Academic Success:
The Refugee/Immigrant in Higher Education

Susan Bosher
Jenise Rowekamp

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Language Proficiency and Academic Success:  
The Refugee/Immigrant in Higher Education

There has been growing awareness and concern in recent years about the language proficiency and academic preparedness of refugee/immigrant students at the post-secondary level. This study investigates in the refugee/immigrant population at the General College, University of Minnesota the relationship between English language proficiency, as measured by standardized language proficiency tests, educational background in L1 and L2, length of residency in the U.S., and academic success, as measured by second-year GPA. Results showed a negative correlation between years of education completed in the U.S. and length of residency in the U.S., and academic success. The most important predictor of academic success was number of years of schooling completed in the student's native country, followed by the student's objective test score on the MELAB (Michigan English Language Assessment Battery). Significant negative correlations were found between years of schooling in the U.S., length of residency in the U.S., and the students listening score on the MELAB, and academic success. Implications of these findings, as well as directions for future research, are discussed.

Since 1975, almost a million refugees from Southeast Asia have resettled in the United States (Office of Refugee Resettlement, 1990). Educational research on the Southeast Asian population, however, has focused almost exclusively on literacy training, and the sociocultural and vocational needs of the adult population (Downing & Dwyer, 1982; Kleinmann, 1982; Reder, 1982; Robson, 1982; Malcolm, 1983; Tollefson, 1985; Green & Reder, 1986). There have also been a few studies on the Southeast Asian population in the elementary and secondary schools (Weslander and Stephany, 1983; Stephany, 1985; Terdal, 1985; Jew, 1986).

Although there is evidence that the Southeast Asian population is increasing at the post-secondary level, and that educators are concerned about their language proficiency and academic preparedness (Verts, 1984; Terdal, 1985; Nadelstern,
1986; Poh, 1988; Bosher, 1989b), there have been only a handful of research studies, mostly unpublished, about refugee students in higher education (Rowekamp, 1989; Bosher, 1990; Bosher and Rowekamp, 1990; Sherman and Rowekamp, 1990; Stuart and Flinspach, 1990). In addition, although educators have been talking informally for the last several years about the differences between refugee and international students in their classes, there has been little formal acknowledgement of those differences in the literature, and the impact of those differences on the language acquisition process (Gillette and Murie, 1990).

Research on ESL students in higher education has focused almost exclusively on the international student.

Perhaps the assumption is that refugee students are not college or university-bound, or that these students are a part of the general myth of Asians as "model minority" students who have somehow overcome whatever language and academic difficulties they have encountered. A more plausible explanation is that this population is an "invisible" one. As permanent residents or citizens, they are difficult to identify; indeed, many institutions choose not to. Consequently, they may not be required to take a language proficiency test, or to complete an ESL program before taking academic classes. However, it seems that many of these students are not succeeding academically at the post-secondary level, and are either dropping out or flunking out.

This study attempts to answer several questions: What
educational factors contribute to refugee/immigrant students' success or failure in higher education? Specifically, how are refugee students different from international students with regards to educational background? And, what educational background variables correlate with, and predict academic success or failure?

REVIEW OF THE LITERATURE

The profile of the "typical" international student is familiar to most: well-educated in their native countries, from urban areas, and from middle- to upper-middle class socioeconomic backgrounds. At the very least, the high cost of education in this country and the lack of financial aid available for international students precludes a broader socio-economic base of students.

Many of the early refugees from Southeast Asia resembled international students in their level of education and their socio-economic background, and they generally did very well in school in this country (Terdal, 1985). The second wave of refugees, however, who began arriving in 1978-1979, were socially, economically, and educationally, much less advantaged. Relatively few of the "boat people" of Vietnam, or the Cambodians, Laotians, or Hmong had had any previous education or work experience relevant to an industrialized economy, nor had they been exposed to urban life or Western technology and values (Reder, 1982).
In a recent study documenting the relative success of Southeast refugees in the schools (Caplan, Choy & Whitmore, 1991), no independent or unique contribution to GPA variation was found using socio-economic status or educational background of either parents or grandparents. The researchers of that study concluded that socio-economic background is not an important variable in understanding the educational experiences of this population. Indeed, the vast majority of refugees in the second wave of refugees from Southeast Asia are from low socio-economic backgrounds, and represent the poorer and less educated segments of their society (Caplan, Choy, & Whitmore, 1991).

Many of the children in this second wave also never learned to read and write in their native language, either because schools were closed after 1975, as in Cambodia and rural Vietnam, or because, in the case of the Hmong from Laos, the society was basically non-literate and formal education not available. In addition, many of these students have lived in refugee camps overseas for two to five years, where for the most part, there is little or no formal education (Terdal, 1985).

Upon arrival in the U.S., these children are generally placed in ESL programs in the public schools and in courses which require a minimum of language skills such as art, physical education, and music (Stephany, 1985). Although these students usually develop good oral communicative skills, they have generally been unable to compete academically in secondary classes that require a higher level of proficiency in reading and
writing than they have attained (Terdal, 1985).

Typically, LEP students enrolled in ESL classes in the public schools are either not enrolled in content-area classes or are not proficient enough in English to get much out of them. As more and more is demanded of students in regular classes, LEP students fall farther and farther behind:

By the time they [LEP students] had acquired enough proficiency in English to receive meaningful instruction in content-area classes, they had in the meantime lost 2-3 years of... content knowledge in mathematics, science, and social studies at their age-grade level. This put them significantly behind in mastery of the complex material required for high school students (Collier, 1987, p. 633).

It is also quite possible to graduate from high school without taking many academically demanding courses. A case study documented in Ontario several years ago (Woods, 1987) listed the following courses that a Vietnamese refugee had taken over a four-year period in high school: Math, Physics, Art, Physical Education, French, Accounting, Typing, ESL, and History:

The only course which demanded regular, well-articulated English prose was grade 11 History, which this student found very difficult. The English as a Second Language course could have demanded it, but he took ESL only in his early high school years, and in neither of these courses was the methodology such that extensive prose was demanded, in order to get a good grade. With good marks in most of these courses, this student was accepted for a university degree program (Woods, 1987, p. 85).

Thus, because of the relatively few academic challenges for graduation, many refugee students graduate from high school and enter colleges and universities with limited proficiency in academic reading and writing, as well as limited content
knowledge acquisition.

Cummins (1982) has articulated the need to distinguish between basic communicative skills, the context-embedded and cognitively undemanding aspects of language, and the context-reduced, cognitively demanding language tasks of formal schooling. This distinction provides a useful theoretical framework within which to understand the academic difficulties of refugee students and the great differences in the amount of time necessary to gain proficiency in the different uses and functions of a second language. While it generally takes 2-3 years to acquire proficiency in basic communicative skills in English, it takes 5-7 years to acquire cognitive academic language proficiency (Cummins, 1981). In a more recent study, Collier (1987, 1988) determined that it can take as much as 10 years to develop the latter, depending on the students' age on arrival in the United States, and her study only included students with uninterrupted educational backgrounds who tested at age/grade level in their native language.

In an attempt to understand the great differences reported in the degree to which refugees successfully acquire English as a second language, several studies have investigated the importance of native language literacy and formal education (Robson, 1981; Green & Reder, 1986), and of the educational background of parents (Stephany, 1985). But, again, none of these studies has focused on the refugee student at the post-secondary level.

There have, however, long been anecdotal reports in
bilingual education suggesting that Mexican students who have had some education in their native language before immigrating to the United States acquire English more successfully, and perform better academically than do Mexican-Americans who have been educated exclusively in English in the U.S. (Wong Fillmore and Valadez, 1986). A study conducted in Sweden of Finnish immigrant students (Skutnabb-Kangas & Toukoman, 1976), and another more recently of Japanese and Vietnamese students in Canada (Cummins, 1984) both indicated a direct relationship between the number of years students had spent in school studying in their native language and their eventual academic performance in their second language.

Cummins concludes that "development of L2 cognitive/academic (context-reduced) proficiency is partially a function of level of L1 cognitive/academic proficiency at the time intensive exposure to L2 begins" (Cummins, 1984, p. 74). In other words, well-developed academic skills in a student's native language are essential to the development of academic skills in the second language. Due to a common underlying proficiency, or interdependence, of language, or at least of certain functions and uses of language, that allows for this transfer of skills, students who have not yet acquired academic proficiency in their native language may very well have difficulty dealing with the academic uses of their second language.

What effect do native language literacy and educational background have on the acquisition of academic English? In a
recent study (Rowekamp, 1989), a standardized language test was administered to an extension ESL class at the University of Minnesota. About half of the students were professionals working in the United States or spouses of international students; the other half were refugees and immigrants, permanent residents of the U.S. Entry scores were similar for these students, but exit scores after a 10-week period of instruction differed considerably, with scores for the professionals advancing from 9 to 24 points, and for the refugee/immigrant population ranging from a 2 point decrease to a 5 point increase.

Could it be that EFL classes overseas, which focus on grammar and reading, prepare students more effectively for higher education than the communicative orientation of many ESL classes in this country? Or, alternatively, could it be that refugee/immigrant students reach a certain plateau of communicative competence in English that is not sufficient for the more context-reduced linguistic demands of formal schooling?

While it has been suggested that performance on a standardized test of discrete items which focuses on the formal properties of language does not accurately reflect a person's ability to use the language in real situations (Chai & Woehlke, 1979; Edelsky, 1983; Martin-Jones & Romaine, 1986), there is also evidence that suggests the lower the language proficiency, as measured by scores on standardized tests, the greater a role it plays in academic success (Gue & Holdaway, 1973; Gershman, 1977; Friedenberg & Curry, 1981; University of Minnesota, 1983; Graham,
1987; Johnson, 1988; Yule and Hoffman, 1990). In other words, while language proficiency does not guarantee academic success, without it, academic success is less likely.

It is, however, also possible that tests which give useful results for foreign students are inappropriate for assessing proficiency in the refugee population. Little research has been done on the different background characteristics of these two groups (Graham, 1987), and only one study has investigated ESL proficiency in the permanent resident population (Dauer, 1987). Dauer compared test scores of 37 resident and 50 nonresident students, all of whom were native speakers of Spanish entering an ESL program at a major university. He found no significant differences between the two groups on the objective test, the Michigan Test of English Language Proficiency, but resident students scored significantly higher on the Aural Comprehension test (p < .01), and nonresidents did better on the 30-minute essay, although the difference was only marginally significant. However, when students were grouped according to proficiency level based on their equated score on the Michigan proficiency test (low - 46-65; mid - 65-79; and high - 80-92), there was more variation. For example, at the mid and high levels, resident students scored significantly higher on the grammar portion of the MTELP; nonresidents in the mid group, however, scored higher than the residents on the reading comprehension test. A closer analysis of the essays revealed qualitative differences in their writing, as well. The resident students wrote more
grammatically, but the nonresident students were better at developing and organizing their ideas.

The purpose of this current study is to investigate educational factors contributing to refugee/immigrant students' success or failure in higher education, specifically educational background variables that correlate with, and predict academic success. This investigation will also compare refugee/immigrant and international students with regard to educational background.

THE STUDY

Subjects

The subjects in this study were 57 students enrolled in an academic "bridge" program for refugee/immigrant students at General College, the open admissions college of the University of Minnesota, during the academic year 1989-1990. All 57 students in the program participated at least initially in this study. Five students, however, did not complete the study, 4 refugee students and 1 international student, reducing our total number of students to 52.

Seventy-five percent of the 57 incoming students in the program were refugees, 16% were immigrants, and 9% were international students. Refugees are defined in the literature as culturally displaced people who have left their country and who have a well-founded fear of persecution if they return because of their race, religion, nationality, or political opinion (Baker, 1983; Ossorio, 1983). Refugees differ from
voluntary immigrants who chose to immigrate to the United States in search of a better life, and international students on a temporary visa to the U.S. who will return to their native country upon completion of their studies. Immigrants and international students are included in this study with refugees because, as will be discussed later, a more useful way of distinguishing among these students is educational background, rather than immigration status.

TABLE 1

<table>
<thead>
<tr>
<th>Status</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>75% refugee</td>
<td></td>
</tr>
<tr>
<td>16% immigrant</td>
<td></td>
</tr>
<tr>
<td>9% international student</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>48% Vietnamese</td>
<td></td>
</tr>
<tr>
<td>21% Laotian</td>
<td></td>
</tr>
<tr>
<td>13% Hispanic</td>
<td></td>
</tr>
<tr>
<td>18% Other (Korean, Chinese, Ethiopian, Cambodian, and Hmong)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sex</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>54% male</td>
<td></td>
</tr>
<tr>
<td>46% female</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>33% graduated from high school in native country</td>
<td></td>
</tr>
<tr>
<td>67% graduated from high school in U.S.</td>
<td></td>
</tr>
<tr>
<td>K-1st grade</td>
<td>3%</td>
</tr>
<tr>
<td>2nd-5th grades</td>
<td>18%</td>
</tr>
<tr>
<td>6th-12th grades</td>
<td>46%</td>
</tr>
</tbody>
</table>

Average years of ESL in U.S. - 3.21 years

Range of Residency in U.S. - 1 year - 14 1/2 years

Average Length of Residency in U.S.

U.S. high school graduates - 7 years
Overseas high school graduates - 2.3 years

Average MELAB Score - 69.66

TABLE 1: Demographic characteristics of 57 students in study
The program in which the students were enrolled their first year in the study, 1989-90, is a full-time academic bridge program for refugee/immigrant students. The program is not a traditional ESL program, with courses at multiple levels in the four skill areas. Rather, the focus is on reading and writing for academic purposes, and the instruction is primarily content-based. The University of Minnesota is on a quarter system; each quarter term lasts 10 weeks. All students take three quarters of writing courses, completing the equivalent of freshman composition; three reading courses, two of which are adjunct reading courses paired with academic content courses; an oral communications course, focusing on group discussion and presentations; and a higher education survival seminar. With one exception, all of the courses bear college credit. They all count for financial aid, and half of them count towards graduation. Students must have a high school diploma or GED, and receive a score of at least 65 on the MELAB (Michigan English Language Assessment Battery) test to be accepted into General college. Students with scores of 78 and above are exempt from the program.

The second year, 1990-91, students in the study were free to take whatever courses they wished at the University; they were no longer bound by the requirements of the "bridge" program. Their second-year GPA, thus, reflects their performance not only in intensive academic language courses, but in regular content courses at the university level, as well.
Procedure

Students did not have to do anything extra to participate in this study. They had already taken the MELAB (Michigan English Language Assessment Battery) as part of their admission to General College. As part of the "bridge" program, students were asked to fill out a schooling profile. Information from this questionnaire included the following: self-reported literacy in native language, sex, years of schooling in native country, years of schooling in the U.S., grades of ESL in U.S., and length of residency in the U.S. Since we had no way of verifying self-reported literacy in L1, and could not determine how much ESL instruction was provided within each grade of ESL, both variables were dropped from the study. The others were included in the study as dependent variables.

Students were also required as part of the program to take the Minnesota Battery test at the end of Fall and Spring quarters. The Minnesota Battery is comprised of the Michigan Test of English Language Proficiency, which includes sections on grammar, vocabulary, and reading; the Michigan Aural Comprehension test; and a 30-minute writing sample, scored using an 100-point scale on the basis of content, organization, vocabulary, language use, and mechanics (Jacobs, Zinkgraf, Wormuth, Hartfiel, and Hughey, 1981). (1)

Scores students receive on the Minnesota Battery do not affect the students' standing in the program or in the college;
they were required as part of a pilot project to determine the feasibility of using standardized language tests to measure progress in the acquisition of academic language skills over three quarters in the program.

Scores from the Minnesota Battery students took at the end of Fall quarter were compared with international student data from the Michigan Test Manual to establish differences between the two populations, at least as indicated by test scores on a language proficiency test. Scores from the Minnesota Battery students took at the end of Spring quarter were tested for significant correlations with second-year GPA.

In addition, the following information was obtained from the students' files: ACT/SAT score, high school GPA, first and second-year college GPA, and cumulative credits. Because students are not required to take the ACT or SAT for admission into the college, this data was incomplete, and was dropped from the study. High school GPA was also not reported for many of the students, and was, therefore, also not included in this study. Second-year GPA was used to measure academic success.

Data Analysis

Simple correlations were calculated between the dependent variable, second-year GPA, and various educational background variables and test scores. Out of the original list of background variables (see Appendix), only four correlated significantly (See Table 5). Multiple regression was calculated
to determine which of the variables included in the study predicted GPA.

RESULTS

First of all, to document differences between the refugee/immigrant population and the international student, mean scores on the MTELP and AC portions of the Minnesota Battery for refugee/immigrant students in our study were compared with scores for international students reported in the Michigan Test Manual (1977). (2) Because not all students in our program took the Minnesota Battery at the end of the first quarter, the total N of refugee/immigrant students reported in Table 2 is 49. (International students were not included.)

Unfortunately, it is not clear from the Michigan Test Manual, however when and where the international students took the Michigan Test. Included in the sample, however, were fairly equal numbers of students of the following language groups: Arabic, Chinese, Germanic, Indic, Japanese, Spanish, and miscellaneous Other.

Simple correlations were run on the subscores for the two groups of students. Table 2 presents these statistics:

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERNATIONAL STUDENTS</td>
</tr>
<tr>
<td>Mean Scores</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>62.84</td>
</tr>
<tr>
<td>(N=1798)</td>
</tr>
<tr>
<td>Correlation between MTELP and AC:</td>
</tr>
</tbody>
</table>
REFUGEE/IMMIGRANT STUDENTS

Mean Scores  

\[ \begin{array}{lcl}
\text{MTEL} & \text{Comp} & \text{AC} \\
68.86 & 70.35 & 83.65 \\
(N=49) & (N=49) & (N=49)
\end{array} \]

Correlation between MTEL and AC: .214  
(N=49)

Table 2: Differences between the international student and the refugee/immigrant student as measured by performance on the Michigan Test

Next, Table 3 presents mean scores of the MELAB test and its components that all 57 students in our study, except one, took prior to their acceptance into the college. (One international student had taken the TOEFL instead.) The 56 students have been separated into two groups, those who completed high school in their native country and those who completed high school in this country. There are refugees and immigrants in the first group, as well as international students, but only refugees and immigrants in the second group. The scores were analyzed using t-tests to compare the mean scores of the two groups.

<table>
<thead>
<tr>
<th>TEST SCORE</th>
<th>OVERSEAS H.S.</th>
<th>U.S. H.S.</th>
<th>T VALUE</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Score</td>
<td>69.7</td>
<td>69.6</td>
<td>.087</td>
<td>.9306</td>
</tr>
<tr>
<td>Objective</td>
<td>69.6</td>
<td>64.4</td>
<td>2.266</td>
<td>.0275*</td>
</tr>
<tr>
<td>Listening</td>
<td>68.6</td>
<td>73.6</td>
<td>-2.453</td>
<td>.0174*</td>
</tr>
<tr>
<td>Composition</td>
<td>70.8</td>
<td>70.9</td>
<td>-.117</td>
<td>.9077</td>
</tr>
</tbody>
</table>

p< .05
Table 3: T-values comparing the mean scores for the MELAB test and its components for students who graduated from an overseas high school and from a U.S. high school.

Table 4 presents mean scores for the Minnesota Battery test and its components administered after three quarters in the program, at the end of the academic year. 50 students remaining in the program who took the test have again been separated into two groups, depending on whether they completed high school in their native country or in the U.S.

### Table 4

<table>
<thead>
<tr>
<th>TEST SCORE</th>
<th>OVERSEAS H.S. (N=17)</th>
<th>U.S. H.S. (N=33)</th>
<th>T VALUE</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Score</td>
<td>75.0</td>
<td>76.3</td>
<td>-.902</td>
<td>.3717</td>
</tr>
<tr>
<td>MTELP</td>
<td>72.8</td>
<td>69.6</td>
<td>1.023</td>
<td>.3116</td>
</tr>
<tr>
<td>AC</td>
<td>76.8</td>
<td>85.6</td>
<td>-5.584</td>
<td>.0001**</td>
</tr>
<tr>
<td>Composition</td>
<td>75.3</td>
<td>73.9</td>
<td>1.1</td>
<td>.2767</td>
</tr>
</tbody>
</table>

p< .05

Table 4: T-values comparing the mean scores for the Minnesota Battery test and its components administered at the end of the academic year.

Next, Table 5 presents correlations (R) significant at the .05 level between background variables and MELAB test scores, and second-year GPA. R2 represents the amount of variance explained by each variable:

### Table 5

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>N</th>
<th>R</th>
<th>R2</th>
</tr>
</thead>
</table>
1. years of schooling in native country 57 .424* .18
2. years of schooling in U.S. 57 -.469* .22
3. length of residency in U.S. 57 -.413* .171
4. objective score on the MELAB 56 .441* .195
5. listening score on the MELAB 56 -.249 .069
6. composition score on the MELAB 56 .177 .031

Table 5: Correlations between second-year GPA and dependent variables

Table 6 presents the results of multiple regression to predict academic success, as measured by second-year GPA. Years of schooling and the objective score on the MELAB accounted for 35% of the variance of second-year GPA.

TABLE 6

Y= second-year GPA
X1= years of schooling in native country
X2= objective score on MELAB

R
.593**
R2
.351

N=51 p= .0001

Table 6: Multiple regression predicting academic success

Table 7 presents the results of a second set of correlations between second-year GPA, and scores from the Minnesota Battery administered at the end of the academic year,
and the amount of variance explained by each variable:

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>R</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. MTELP</td>
<td>.294*</td>
<td>.086</td>
</tr>
<tr>
<td>8. AC</td>
<td>-.310*</td>
<td>.096</td>
</tr>
<tr>
<td>9. Composition</td>
<td>.326*</td>
<td>.106</td>
</tr>
<tr>
<td>10. Total</td>
<td>.153</td>
<td>.023</td>
</tr>
</tbody>
</table>

Table 7: Correlations between second-year GPA, and scores on the Minnesota Battery and its components administered at the end of the academic year

DISCUSSION

Table 2 demonstrates an important difference between international students and refugee/immigrants: for international students, there is a strong correlation between their formal knowledge of the written language, as measured by the MTELP score, and their formal knowledge of the spoken language, as measured by the AC score on the Michigan Test. This is not the case with refugee/immigrant students. A look at the mean scores of students included in this study (see Table 2) reveals that refugee/immigrant students who completed high school in this country tend to score higher on the AC component of the Minnesota Battery, and lower on the MTELP.

Tables 3 and 4 compare the mean scores of the MELAB and Minnesota Battery tests for students who completed high school in the U.S. and students who completed high school in their native
country. Students who graduated from high school in the U.S. scored significantly higher on the listening test than students who graduated from high school in their native countries. This difference holds from the incoming MELAB score (see Table 3) to the Minnesota Battery administered at the end of the school year (see Table 4). In contrast, students who graduated from high school overseas scored significantly higher on the objective test. This difference was no longer significant by the end of the year, however.

With regard to background variables that correlate with academic success, years of schooling in native country had the strongest correlation, followed by the objective test score on the MELAB (see Table 5). These findings are consistent with Cummins' et al (1984) study of 45 Vietnamese immigrants in Canada between the ages of 3 and 17 years, in which a strong positive correlation was found between age and last grade in Vietnam on the one hand and English and Vietnamese proficiency on the other, and with the findings of a study of Hmong refugees in Southeast Asian camps (Robson 1981), in which previous formal education and literacy in Hmong independently predicted progress in learning English in a formal classroom setting.

Years of schooling and length of residence in the U.S. correlated negatively with second-year GPA. In other words, the longer students had studied in a U.S. high school, and/or the longer they had lived in this country, the lower their GPA tended to be at the end of their second academic year. (These
relationships were also significant at the end of the first year after three quarters in the academic "bridge" program, but were even stronger after the second year.) The listening score, which is likely to correlate positively and significantly with length of residence in the U.S. (Dauer, 1987), also correlated negatively with academic success.

Students who had completed high school in their native country were the most successful academically in this country. These students also had higher objective scores on the MELAB, which suggests a transfer of formal language skills across languages. (The correlation between GPA and objective score on the MELAB was significant the first year, but not the second, however.) Assuming many of these students had also studied English in their native country, this finding also suggests that the more formal language study in overseas classrooms which tends to focus on grammar and reading may provide better preparation for academic study in the U.S. than the communicatively-oriented ESL classrooms in this country which tend to focus on speaking and listening (Dauer, 1987). Most importantly, it suggests the importance of an uninterrupted educational background for the successful acquisition of a second language for academic purposes (Cummins, 1979).

We can, in fact, predict academic success on the basis of two variables, years of schooling in native country and objective score on the MELAB (see Table 6). The correlation is highly significant, and accounts for a healthy 35% of the spread of
CONCLUSION

It is clear from this study that the label "refugee" needs to be reconsidered, since many refugee students are like international students in having completed high school in their native country, and in not having experienced interruption in their education. The refugee/immigrant students who are most "at risk" at the post-secondary level are those who experienced interruption in their education and completed high school in the U.S. They risk having limited academic language proficiency and content knowledge acquisition. The distinction between permanent residents with uninterrupted vs. interrupted educational backgrounds is more meaningful from an academic point of view, and avoids using a label that many refugees who are now comfortably resettled in their new country, find stigmatizing.

In general, however, the educational background of refugee/immigrant students differs from that of international students in several important ways: higher probability of limited or interrupted educational background in L1; higher probability of having acquired English informally by having lived longer in the U.S., and through ESL curricula at the secondary level that focus on oral communication rather than reading and writing for academic purposes; and higher probability of limited acquisition of content knowledge in high school.

Since years of schooling in native country and the objective...
test score on the MELAB are predictive to a certain extent of academic success, refugee/immigrant students who have completed high school in this country are at a disadvantage, at least at the beginning of the academic year. Differences in language proficiency as measured by the objective test between students who completed high school in the U.S. and those who completed high school overseas, which were significant at the beginning of the first year (see Table 3), were not significant at the end (see Table 4), possibly due to the effects of classroom learning.

This study suggests that students with interrupted educational backgrounds and limited content knowledge acquisition may experience academic difficulty at the post-secondary level. It remains to be seen how students do their third, fourth, and fifth years and what their graduation rate is. We hope to report on this data as it becomes available.

Finally, there are few ESL programs at the post-secondary level which have been designed to meet the academic needs of the refugee population. Non-credit ESL courses, designed for international students who have recently arrived in this country, and who are not yet matriculated into a college or university, quickly deplete the financial aid resources of permanent residents, and frustrate students who have good oral proficiency in the language, are knowledgeable about the culture, have been mainstreamed in high school, and are anxious to get on with their education. Careful consideration should be given to developing programs for refugee/immigrant students, who otherwise avoid
classes which require intensive reading and writing (Stuart and Flinspach, 1990). Without adequate language and academic skills, this "invisible" population will soon become a "lost" population, with all its accompanying socio-political and economic implications.

NOTES:

(1) Although the components of the Minnesota Battery are the same as for the MELAB, the MELAB score report refers to the MTELP as the Objective test and the AC as the Listening test. These distinctions are maintained throughout this paper.

(2) We used scores students in our program obtained on the Minnesota Battery at the end of the first quarter rather than their incoming MELAB scores because of recent changes in the MELAB test which have made the AC portion of the test more difficult, resulting in lower scores on the MELAB (personal correspondence with the English Language Institute, The University of Michigan). Because of this, we would not have been able to compare the subscores of the revised version of the MELAB with subscores from the older version represented in the Michigan Test Manual. The Minnesota Battery test is of the same generation of tests as those reflected in the Michigan Test Manual.
REFERENCES


Appendix

Data Collected for Study

Status (refugee, immigrant, international student)
sex
self-reported literacy in L1
years of schooling in native country
years of schooling in U.S.
grades of ESL in U.S.
length of residency in U.S.
high school GPA
ACT/SAT score
first and second-year college GPA
cumulative credits
English language proficiency scores
  MELAB (entry)
  Minnesota Battery (3 months, 9 months - Total and partial scores)