International Student Self-Selection Into The Introductory Speech Course: Spring 1995 - Spring 1997

Mark H. Wright

Dept. Humanities & Social Sciences Embry-Riddle University 600 S. Clyde Morris Blvd. Daytona Beach, Fl. 32114 (904) 226-6662 (904)- 226-7210 fax wrightm@cts.db.erau.edu

> James Cunningham Dean of Academics Embry-Riddle University 600 S. Clyde Morris Blvd. Daytona Beach, Fl. 32114 (904) 226-6640

Assessing the international student diversity in different instructors' speech classes is important in understanding student perceptions of instructors, and in correcting misperceptions. One-way ANOVA revealed that while time of day was not a significant factor in choosing Speech sections, the instructor was a significant factor. Before the Conference, we will complete a round of surveys that attempts to get detailed impressions of different instructors. Those results will also be included in the paper.

The goal of this study is to determine whether there is evidence for international student self-selection into Embry-Riddle's introductory, general education speech course. This goal is significant in that it can provide individual instructors with insight into what diversity means in their speech classrooms. Combined with further study, this analysis will help reveal how international students choose speech instructors and/or sections.

During the time period studied, that course, HU 219, was specified in the University's general education requirements. Therefore, one would expect that international students would make up the same share of HU 219 students as their share of the student population as a whole. In addition, one might expect that the differences in the distribution of international students by instructor would be significant, both in terms of groups of students (Middle Eastern for example) by instructor, and in terms of the total distribution of different types of students (Middle Eastern, African, etc.) by instructor. Finally, if instructor is a strong factor in section selection, one would expect it to be a stronger factor than the time when sections are offered.

# METHOD

Class lists for each HU 219 section offered from Spring 1995 - Spring 1997 were obtained. These lists contain student ID numbers, by which international students may be identified. International student numbers begin with "F." A list of international students was compiled, and the names were forwarded to International Student Services staff, which provided their countries of citizenship. International students were divided into eight groups based on their citizenship: Asian; Middle Eastern; African; Caribbean; Central and South American; Western European; Eastern European; and North American.

The class list also provided the instructor name and the time the class was offered. Hence not only could the number of international students be expressed as a percentage of total students, but it was also possible to compare the variation in representation of different groupings of international students for different instructors.

The following table compares the representation of international students in each instructor's class as both a percentage of all students and as the number of international students per section.

Instructor	% of Int'l Students	International Students Per Section
NP	17.8	4
AS	12.6	2.1
JC	13.3	2.7
DB	6,1	1.2
АМ	19.6	3.4
MW	12.8	2.6
MM	11.9	2,3
BH	9.8	2.25
SF	9	1.9

The following table compares the representation of international student groups, expressed as a percentage of all the instructor's international students in each instructor's classes.

	Asia	MidEa	Afric	Carib	C/SAm	WEur	EEur	NAm
univ.	31.5	19.5	13.7	8.8	8.2	7.6	6.9	3.8
NP	5	80	0	0	0	10	5	0
AS	30	10	17	0	17	17	0	9
JC	38	0	0	0	25	25	0	12
DB	27	9	0	27	9	22	0	9
AM	29	17	12.5	12.5	4.2	12.5	0	8.3
MW	15	31	0	31	0	23	0	0
MM	12.5	25	6.25	6.25	12.5	25	0	6.25
BH	22	0	11	0	11	33	11	11
SF	29	10	10	20	0	5	24	0

Instructors with fewer than three sections were eliminated from the instructor comparison analyses.

Finally, the times when different student groups took Speech classes were compared. The class scgedule was broekn into four times. T1 represents first period classes. T2 represents classes from first period through noon on MWF, and through 12:30 on TTh. T3 represents classes from noon through 4:30 MWF, and from 12:45 through 3:50 Tth. T4 represents the last class period of the day. The following table shows how different student groups were distributed across the four time periods.

	Asia	MidEa	Africa	Carrib	C/SAm	WEur	EEur	NAm
T1	9	6	0	0	8	9	0	0
T2	42	40	25	35	30	<b>3</b> 3	66	38
ТЗ	39	32	33	56	38	36	0	38
Т4	12	23	40	7	23	12	33	25

### PERCENTAGE OF INTERNATIONAL STUDENTS IN ALL SECTIONS

During the time period studied, the percentage of international students in the university's total undergraduate population averaged 15%. Interestingly, international students made up only 12% of the students in HU 219 during the time period studied. This discepancy may be due to differences in foreign student identification between the admissions office and the registrar, or to international students delaying taking HU 219 until their junior or senior years at a greater rate than students who were U. S. citizens.

To test the second hypothesis, the percentage of upper and lowerclassmen was calculated for both international students and U.S. citizens. The following table summarizes those results:

Intern	ational	U. S.		
% Upperclass	% Underclass	% Upperclass	% Underclass	
88	12	71	29	

Hence it appears that in comparing the percentage of international students in speech sections with their percentage of the total student population, it's necessary to assume a three-year lag, rather than assume they are taking Speech at the end of their freshman or the beginning of their sophomore year.

EVIDENCE OF SELF-SELECTION WITHIN STUDENT GROUPS

Single Factor ANOVA was performed comparing the amount of students from different international groups across different instructors. The amount of students in a group was expressed both as a percentage of all international students in an instructor's sections, and as the number of international students from that group per section for each instructor.

As a Percentage of All International Students for Each Instructor

Source of Variati on	SS	df	MS	F	P-Value	F Crit
Between Groups	4091.58	7	584.511	4.36296	.000524	2.15643
Across Groups	8574.18	64	133.972			
Total	12665.8	71				

As The Number of International Students Per Group Per Section

Source of Variati on	SS	df	MS	F	P-Value	F-Crit
Between Groups	3.35569	7	.479384	3.24702	.004786	2.14154
Across Groups	10.4823	71	.147638			
Total	13.838	78				

Finally, single factor ANOVA was performed comparing the distribution of students in each international student group across the four time divisions.

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Source of Variati on	SS	df	MS	F	P-Value	F Crit
Between Groups	22.7143	7	3.78571	.008973	.9999996	2.57271
Within Groups	8860.25	21	421.917			
Total	8882.96	28				

## EVIDENCE OF SELF-SELECTION ACROSS STUDENT GROUPS

Single factor ANOVA was also performed comparing the total distribution of international student groups across instructors.

To reduce measurement error (since the average in all groups using percentages would be 12.5), this analysis was performed using only number of international students of each group per section.

Source of Variati on	SS	df	MS	F	P-Value	F Crit
Between Groups	.721076	9	.08012	.427096	.916217	2.0166
Within Groups	13.1314	70	.187592			
Total	13,8525	79				

### DISCUSSION

When student groups were compared against each other across instructor, whether the number of students was measured as a percentage of each instructor's international students, or as the number of students per each international student group per section, the differences were significant. The p-value for the first analysis was .000524; the p-value for the second analysis was .004786.

Further, the differences in distribution of students in each group across the four time periods was not significant. The p-value for that analysis was .999996, so differences in distribution were almost certainly due to chance factors.

When the distribution of international student groups was compared across instructors, the differences were not significant. Perhaps because the shapes of the distributions were similar, it was more difficult to assess variations. Or perhaps an interpretation of the result would be that student origin is stronger than the "pull" of the instructor in determining which section an international student will choose.

#### CONCLUSIONS

There is some significant evidence that points in the direction of different rates of enrollment in different instructor's classes being due to international student group membership.

Individual instructors may benefit from knowing how the mix of international students in their sections is different from that in other sections.

In order to fully understand whether self-selection occurs, and how it occurs, it will be necessary to survey international students. A mix of prospective and retrospective surveys would minimize measurement error. However, prospective surveying is logistically impossible, since it would have to be conducted during registration. In any case, students should be asked what factors entered into their selections of Speech instructors, which instructors they considered if the instructor was a factor.

In this way we can begin to understand how international students perceive different Speech instructors, and perhaps encourage more diversity in Speech classrooms.

The version of the paper presented at the conference will include the results of one round of surveys, conducted at the beginning of Fall semester, 1998.