

## **Academic Success of Undergraduate Nursing Students**

### **Abstract**

Defining academic success can be challenging when perceptions about the qualities that define it differ. Little is known about these perceptions when it comes to nursing students, especially when English is a second language (ESL). The purpose of this study was to learn about undergraduate nursing students' perceptions of academic success and differentiate between students with English as their primary language versus ESL. The study identified statistically significant findings for perceived student success when students had a prior degree, they were at a higher academic course levels in their nursing education, and believed they communicated adequately. Faculty roles have affects on students' perceptions about their academic success and suggest areas where interventions might occur.

### **Introduction**

Determining a definition for academic success can be challenging. Universities may define academic success as good standing with grades or making satisfactory progress toward completing degree requirements. However, grading approaches within and between universities may produce disparate measurements of academic success. Institutional perspectives about success may not be aligned with student perceptions. For example, nursing students might view success as achieving a particular grade point average (GPA), earning a degree, or being employed in their career choice. York, Gibson, and Rankin (2015), after a thorough literature review, defined academic success as “academic achievement, attainment of learning objectives, acquisition of desired skills and competencies, satisfaction, persistence, and post-college performance (p. 5).” They concluded that success is broad, complex, often includes multiple desired outcomes, and incongruences between how it is defined and measured often occur.

Research indicates that grades and GPA may not always accurately measure learning or cognitive abilities (Arum & Roksa, 2011). It seems a robust assessment of student success must include students' educational goals and attention to relationships between grades and academic achievement, especially when students fit within under-served groups (York, Gibson, & Rankin, 2015).

Failure to develop adequate English language proficiency has been shown to lead to higher dropout rates for international nursing students (Alvarez & Abriam-Yago, 1999). When English is a second language (ESL), nursing students often experience a higher attrition rate than those that have English as their primary language (Olson, 2012). In 2007, first-year higher education students in the United States not returning for a second year cost \$1.35 billion (Schneider, 2010). Olsen (2012), in a critical review of the literature (n = 25 studies), identified that nursing ESL students faced significant language barriers. A decade ago, a relationship was found between a lack of English proficiency and NCLEX performance because ESL candidates passed at a lower rate than English only candidates (O'Neil, Marks, & Liu, 2006). A more recent literature review considered educating Asian ESL students and determined that these students have neither realized their full potential nor their career goals (Scheele, Johnson, & Xu, 2011). This seems to present a moral imperative to learn more about ways to enhance learning outcomes and educational experiences of all ESL nursing students.

Differences between linguistic knowledge and communicative competence are of concern. Problems with pronunciation and failure to comprehend abstract ideas or understand colloquial expressions can be concerns for ESL students. ESL students can be anxious about their abilities to speak English, fear that others hold negative perceptions of them, and may experience other social adjustment problems. ESL students often translate English words into

their primary language and then back into English, a time-consuming process. Also, ESL nursing students can experience loneliness, discrimination, and face faculty insensitivity or peer student support (Gardner, 2005).

International students must acquire new knowledge, behaviors, and attitudes as they attempt to achieve success in their academic studies. ESL students can be challenged as they try to accurately interpret the sociocultural values expressed in interactions and respond in ways consistent with local norms (Holmes, Marra, & Vine, 2012). Inadequate knowledge about social norms of differing cultures may cause misunderstandings on the part of nursing faculty members and students. ESL students may not differentiate between common street language, professional expectations, and standard English (Goldstein, 1987). ESL nursing students may have different perspectives about being assertive and managing conflict. Constructed case scenarios including social and cultural norms used to explain or test students can be confusing. When nursing faculty lack cultural sensitivity a potential to misunderstand or derive false assumptions creates linguistic barriers (Hansen & Beaver, 2012; Olson, 2012). Lack of familiarity with unique local cultural aspects can cause the ESL students to have difficulties in holding conversations and also result in unfamiliarity with workplace communication norms (Holmes, Marra, Newton, Riddiford, & Vine, 2011). If students are uncertain about their relationships with others their course involvement may be affected. ESL nursing students may have difficulty in adjusting to a different culture, lack of clarity about the meanings of some behaviors, hold conflicting health beliefs, and experience discomfort when speaking.

ESL nursing students may have difficulties understanding traditional lectures if their learning styles are incompatible with faculty teaching styles. ESL nursing students may be accustomed to rigid teachers, structured home situations, and concrete learning styles; these

things can be incompatible with American nursing faculty members' teaching strategies (Sanner & Wilson, 2008). ESL nursing students may be familiar with paternalistic teachers, rote memorization, and being told what to do. While ESL students are usually willing to do whatever it takes to please their faculty members, some students may fail to share information they view as having potential to create negative consequences (Sanner & Wilson, 2008). In New Zealand, an investigation into pedagogical challenges faced by international students found that students often only understood about 20-30% of lecture content, may have difficulty understanding much of the terminology used and have difficulties with different accents (Johnson, 2008). The speed of lecture delivery and use of technical language of health care can also be hindrances (Andrade, 2006). ESL students can also struggle with group work, oral presentations, and reading comprehension.

If ESL students think faculty make assumptions about them based upon language, they may hesitate to speak in class or be reluctant to engage teachers in conversation (Sanner & Wilson, 2008). These ESL students were likely to do as they were told without expressing their true feelings. Experiential meanings can also be constructed based on prior learning or social experiences. International students may encounter barriers that hinder their willingness to fully participate in discussions, ask questions, or ask for assistance if nursing faculty fail to establish effective communication in classrooms and clinical environments (Thompson, 2012). ESL students may cluster with others who speak their native languages and be hesitant to interact with others unless prompted to do so. If poor communication occurs between ESL students and nursing faculty, the development of students' clinical skills and academic success can be impeded.

## **Resolving Barriers to Academic Success**

Several studies have demonstrated that faculty interventions can improve ESL students' academic success. ESL students in a study viewed assignment to a formal remediation program as useful, but believed this reduced valuable study time (Sanner & Wilson, 2008). In another study, a mentorship program for international nursing students included group meetings to discuss general and academic English as well as nursing content (Seibold, et al., 2007). These students reported that support helped them with oral, written and cognitive skills such as critical thinking; however, only 9 of 20 students attended the mentorship program. Starr (2009) reviewed qualitative research literature (n = 10 studies) and found that ESL student challenges included language, academics, resources, and culture. These are things needed by nurses to solve clinical problems. It is also important to recognize that ESL students are individuals and may not always share the same concerns.

ESL students need interventions linked with language and culture. English classes alone can be ineffective because they lack the context linked with students' clinical learning needs. A four day program focusing on general academic and a specific bioscience subject writing included one-on-one sessions where students (n = 28) were provided faculty feedback on assignments (Weaver & Jackson, 2011). Despite the short duration and limited study focus, these students gave positive feedback and said individual sessions were helpful. A different study found that only 4 of 8 participants of an English language support program claimed that academic writing and reading skills had assisted them; however, some participants only attended 8 of 24 possible hour sessions (Crawford & Candlin, 2012). These small studies suggest program improvements should focus on academic writing and reading, increase the focus on terminology, roles, and tasks. Given the practical nature of nursing, a lack of research about the factors that

impact students' clinical performance is still a concern (Pitt, Powis, Levett-Jones, & Hunter, 2012). Studies with larger ESL groups would be useful.

ESL nursing students may perceive the teacher - student relationship differently from American students. Gaps often exist between what faculty say and what the students understand is said in classroom and clinical settings (Glasgow, 2014). Students and faculty may hold different cultural views of health, illness care, and nursing. Academic success of ESL nursing students must not only enhance language development, but also include actions that increase mainstream acculturation (Olsen, 2012). Linguistic abilities may not be the same as self-confidence in being an English speaker. More still needs to be understood about the implications and needs for academic success in ESL and other nursing students.

### **Relationship among Language, Student Perceptions, and Academic Success**

#### **Study Background**

A Faculty Learning Committee (FLC) at one of three campuses of a north Texas college of nursing met regularly to focus on concerns related to student success. Faculty members from multiple course levels engaged in open discussions about the numerous implications of student success. Questions posed to the group included: How is student success defined? What does a successful student look like? What factors inhibit or promote student success? What are the desirable characteristics of graduating students? A central emerging theme after multiple group discussions was concern about student success when English is the second language (ESL). This faculty group identified academic success as completion of the nursing course curriculum and ability to successfully pass the NCLEX - RN exam. Faculty agreed that their experiences identified that ESL students often had writing difficulties and stunted verbal abilities, things they

viewed as barriers to academic success. Also, great uncertainty about the best ways to improve ESL students' success was noted.

The FLC discussions invigorated dormant concerns about the forms of support needed by ESL students. For years, faculty had engaged in discussions about the best ways to ensure students' academic success in completing the undergraduate curriculum. Three previous attempts to provide an intervention and student support had occurred. The first attempt was aimed at using a student life organization sponsored by the university to offer a mentoring program by students for ESL students. Unfortunately, no ESL students signed up with mentors. Second, a faculty-facilitated one-on-one peer-mentoring was offered with some success, but few faculty actually participated to provide needed support for student peers. Many faculty believed this role required a skill - set beyond usual faculty role responsibilities. Third, discussion about the possible use of the university's academic coaching services located at the main campus for students at the regional campus occurred. The hope that this support center could assist with language and comprehension barriers of ESL students and others also failed to come to fruition. The FLC members agreed that a study of nursing students' perceptions about academic success, language use, and behaviors might provide some clearer insights about the concerns and suggest interventions to improve academic success.

### **Study Questions**

Given the observations regarding challenges faced by students with ESL and the faculty's desire to better understand the situation, three study questions were identified as a guide for analysis. The two quantitative and one qualitative study questions were:

1. What are the characteristics of students with ESL?

2. What undergraduate nursing students characteristics are predictive of self-reported academic success levels?
3. What are the qualitative themes that evolved from the open-ended comments provided by study participants?

### **Study Instrument**

The intent was to explore undergraduate nursing students' perceptions about relationships between language use and classroom or clinical interactions, associated social interactions, and perceived academic success at all three campuses. A review of current literature failed to reveal a valid or reliable instrument for use. Thus, the study's primary investigator developed the original survey question list. The survey instrument was reviewed by the FLC members and many edits and revisions made. Next, the instrument was reviewed by a content and a statistical expert, their suggested responses were incorporated into the survey. The FLC members again reviewed, edited, and finalized the survey. The final *Language Use Survey* contains 50 items and included 14 demographic questions. A 5-point, Likert scale was used to choose responses and eight qualitative questions were included. In the survey, perceived success was measured by the individual's self-report of perception.

### **Study Procedures**

The study proposal was reviewed and approved by the university's Institutional Review Board (IRB). In spring 2015, undergraduate and graduate nursing students at the university's three campuses were invited to complete the survey using pencil and paper during class time. This data collection method was used to assure greater student participation. A script about the study purposes, risks, benefits, confidentiality, and contact information was read to classroom students by a member of the faculty research team. Students were informed that participation was not mandatory and grades would not be affected by participation. Most students completed



the survey in about 15 minutes. An initial email message informed online and graduate students at all three campuses about the similar *Psychdata* format survey and invited them to complete it. A second email message was sent two weeks later as a reminder to ensure the greatest number of these participants.

## Study Results

### Study Participants

A total of  $n = 868$  graduate and undergraduate nursing students completed the survey; however, this paper only describes results from the undergraduate nursing students (77.1%,  $n = 660$ ) at two of the college campuses. The undergraduate students were the larger number of students participating and of greatest concern due to their pre-licensure need to pass the NCLEX-RN exam. The undergraduate nursing students had previously completed their first two college years and were engaged in their sequentially numbered junior and senior semester nursing courses (J1 = 186, J2 = 164, S1 = 130, S2 = 159). Of those undergraduate students included in the analyses, the largest percentage was classified as J1 (29.1%), students in their first of four semester of the nursing program. The largest number of nursing students were from the Dallas campus (63.8%), but total undergraduate participants were primarily female (82.4%) and more than half of them held a prior degree (51.7%). Many students transferred from the main college campus after successfully completing their first two years of classes, but others had completed community college programs in nearby counties or other colleges and universities. Only six participants indicated that their prior education was completed in another nation (i.e., 5 India, 1 Iran). Of the 660 participants in the study, only 527 identified their ethnicity. Some participants merely identified themselves as Americans, Texans, and others as multiracial. Of great interest was the number of mixed races ( $n = 25$ ) and the potential meanings of the ethnicity placed first

(e.g., Asian - White, White - Hispanic, Native American - Hispanic, Asian - Indian). In all, the study participants identified that 68 languages ( e.g., Japanese, Spanish, Farsi, Korean, Latvian, Estonian, German, Polish, Swedish, Swahili, Finnish, Thai, Luba-Kantanga) were spoken. Some languages included regional dialects (e.g., Tagalog, Gujarati, Igbo, Urdu, Hindi, Newari, Tamil, Yoruba). One participant noted that they used sign language.

### **Research Question 1: What are the Characteristics of Students with ESL?**

To examine characteristics of students with ESL, Likert - scale items which conceptually measured a construct were summed together to create variables which would assess students' foreign speech characteristics. Cronbach's alpha was used to determine the reliability of these items, with each of the new variables having a Cronbach's alpha greater than .80, indicating high reliability (Table 1). The data were then stratified to only include students who reported ESL and descriptive statistics were calculated for the scale scores (Table 2). Students' scores on frequency of foreign speech in a school setting ranged from 3 to 12 ( $M = 6.78$ ,  $SD = 2.73$ ), scores on frequency of foreign speech outside school setting ranged from 5 to 15 ( $M = 11.84$ ,  $SD = 2.65$ ), scores on English speaking level ranged from 8 to 16 ( $M = 14.88$ ,  $SD = 1.88$ ), scores on comfort communicating ranged from 12 to 24 ( $M = 19.90$ ,  $SD = 3.12$ ), and scores on difficulty with assignments ranged from 3 to 7 ( $M = 4.09$ ,  $SD = 1.23$ ). Finally, ESL students self-rated success scores ranged from 1 to 10 ( $M = 7.17$ ,  $SD = 1.49$ ) compared to those with English as their primary language ( $M = 7.33$ ,  $SD = 1.49$ ). A  $p = .22$  indicated no significant difference between these students.

### **Research Question 2: What undergraduate nursing students characteristics predict self-reported academic success levels?**

To test the relationship between foreign speech characteristics and student's success in the program, the entire sample of undergraduate students was used. A multiple linear regression was conducted with student success as the outcome variable and the foreign speech characteristics variables as the predictor variables. Independent samples t-tests and one-way analysis of variances (ANOVA) were conducted to test the relationships between the demographic variables and student success to determine if any covariates needed to be added to the model (Table 3). Consensus of the research team found the need to collapse levels of the demographic variables in order to improve the counts [cell sizes] needed for analyses. Each level of a variable must account for at least 10% of the total responses, otherwise the cell size would be too small to analyze. Because outliers were detected on the student success variable, all analyses were run with and without outliers to examine the possible effects. Only the multiple linear regression was affected by the inclusion of outliers; therefore, results for the model are presented both with and without outliers. All other analyses presented include outliers and an alpha level of .05 was set to determine statistical significance.

Results from the primary analysis revealed that the overall model predicting student success from whether or not students had a prior degree, student level, frequency of foreign speech in school setting, English speaking level, comfort communicating, and difficulty with assignments was significant,  $F(8, 571) = 16.40$ ,  $R^2 = .187$  (Table 4). Frequency of foreign speech outside school setting was excluded from the model as only a few students answered that question and inclusion in the model resulted in a significant decrease in sample ( $N = 79$ ). Whether or not students had a prior degree, student level, English speaking level, comfort communicating, and difficulty with assignments were significant predictors. Students who did not have a prior degree were associated with lower student success ratings compared to students

with a prior degree ( $Beta = -.076$ ,  $p = .047$ ). In addition, students classified as S1 ( $Beta = .154$ ,  $p = .001$ ) and S2 ( $Beta = .240$ ,  $p < .001$ ) were associated with higher student success ratings compared to students classified as J1.

When examining the foreign speech characteristic variables, students with higher English speaking levels scores were associated with higher student success ratings ( $Beta = .125$ ,  $p = .002$ ). In addition, students with higher comfort in communicating with faculty, classmates, and others were associated with higher student success ratings ( $Beta = .126$ ,  $p = .003$ ). Participants with lower difficulty with assignment scores were associated with higher student success ratings ( $Beta = -.205$ ,  $p < .001$ ). Frequency of foreign speech in school setting was not a significant predictor,  $p > .05$ . When outliers were excluded from the model, English speaking level also became nonsignificant,  $p > .05$ . All other findings remained consistent.

### **Research Question 3: What are the qualitative themes that evolved from the open-ended comments provided by study participants?**

Study participants also responded to open-ended questions as part of the survey. Qualitative data was transcribed and then examined using constant contextual comparison to identify categorical content and themes. Findings indicated that students desired clear instructions, practice exam questions, and realistic faculty expectations to assist them to be more successful. Participants suggested that they need assistance in knowing what to read and what is important when taking notes. Many reported that faculty lectures are not always enough. Important points need to be emphasized and ways to hear important things more the once using supportive technology (e.g., videos, YouTube, photos, Internet) would enhance success. The use of simulation and clinical experiences to emphasize essential learning points were also identified as ways to aid success. Although it is expected that ESL students will face some language

barriers, participants noted that even primary English speakers have difficulty with some medical language, ambiguous vocabulary, slogans, and uncommon synonyms. Participants said faculty not only need to take time to clarify and explain, but they should take care to not shame students for not understanding. ESL students often pointed out that it takes extra time to understand cultural implications in lecture examples and test questions and this may cause them to be slower than English speakers. ESL students said when they feel isolated from English speakers, they cling to those sharing their native language.

Participants were provided an opportunity to offer comments at the end of the survey, but only 10 did so. These few comments suggest a few areas where nursing faculty can make positive changes to facilitate students' academic success. These students suggested that faculty narrow the teaching focus to important learning points and identify specific directions that assist students to identify what is truly important and will be tested. ESL students may not be familiar with terms used in test questions, things unrelated to the nursing knowledge being tested. Participants agreed that faculty members need to work together and be consistent in their teaching.

## **Discussion**

The primary purpose of this study was to learn more about the ways student success was perceived by nursing students and consider ways being an ESL student is linked with academic success. This study investigated factors linked with nursing students' perceptions of their academic success. Several indicators (i.e., students' prior degree, student educational level, frequency of foreign speech in school setting, English speaking level, comfort communicating, difficulty with assignments) appeared to have some influence on perceptions about student success. Given that 51.7% of the total undergraduate participants reported having a previous

degree, possession of prior educational degree seems a good predictor of nursing students' perceptions of academic success. Some participants (22.6%) who reported having a prior degree also reported learning English as a second language.

It seems important to better understand what nursing students view as academic success. Because student perceptions were not matched with actual student scores, it is not possible to determine if their perceptions were aligned with reality. However, students with higher English speaking level scores were associated with reports of perceived higher academic success. Students are expected to gain a growing level of self-confidence as they progress through course levels. As expected, the J1 student group saw themselves as the least successful (mean 6.90) and students in each progressive nursing grade level rated themselves with greater confidence in their success (J2 = 7.07, S1 = 7.47, S2 = 7.82). Both S1 and S2 undergraduate nursing students scored significantly higher than J1 and the significant differences between the J2 and S2 group all demonstrate that as these nursing students successfully moved through the educational program confidence was gained in their abilities to succeed. Nursing faculty might consider ways they can act to build greater self-confidence in beginning students.

Based upon participants' qualitative reports, nursing faculty may need to consider different approaches to content delivery and use effective ways to engage ESL students with others during learning experiences. For example, faculty must use clear language when speaking or giving directions. Terms and concepts placed into test questions must be free of confusing cultural interpretations or meanings. Students need to be actively engaged in their learning as they interact and support one another. ESL students and primary English speakers must be encouraged to interact in ways that promote cultural familiarity and prepare them for situations likely to be encountered during clinical practice situations.

Faculty may need to reflect upon and put aside their assumptions or bias about ESL students as they get to know them as individuals and identify diverse authentic needs. Nursing faculty need to be aware that English speaking level, comfort in communicating, and perceived difficulty with assignments are predictors of students' academic success. These things need to be addressed early in the semester prior to any high-stakes testing. Effective support of ESL students may require nursing faculty to interact differently with them inside and outside the classroom. Communication experiences of international students may differ from those of second generation immigrants living in homes where family regularly speaks their native language. If ESL nursing students view themselves as poor English speakers or are intimidated by faculty members then self-confidence and perceptions of academic success may decrease.

It has previously been noted that language difficulties of ESL nursing students affect their academic performance (Abriam-Yago, Yoder, & Kataoka-Yahiro, 1999; Salamonson et al., 2008). The English Language Acculturation Scale (ELAS), a short 5 item measure, has been successfully used to assess nursing students' acculturation and can be used as part of screening and orientation (Salamonson et al., 2008). This survey asks questions related to which language is used to read, think, speak, and which language is spoken at home and with friends (Salamonson et al., 2008). Lower levels of English language acculturation appear to be associated with lower levels of academic achievement. Perhaps, this tool is a way to enter into student discussions about language abilities, obstacles to success, and encouragement to more frequently use English in all communication.

If students believe they are not fitting in with others, class and clinical involvement may be negatively influenced. Thus, it is important for faculty to observe student interactions with specific attention to ESL student needs and identify ways to engage students cross-cultural

interactions. Faculty members must be cautious in judging ESL students as weak because they are hesitant to speak or produce grammatically incorrect writing. Generally, ESL students want to improve their language skills and academic success. Nursing faculty must be prepared to encourage, empower, and value all students in classroom and clinical settings. For example, faculty can enhance critical thinking skills by summarizing key lecture points, interpreting or clarifying assignment expectations by providing clear rationale for assignments, and identifying which content needs to be mastered (Sanner & Wilson, 2008). These concerns are relevant to all learners, but ESL students might need additional forms of attention.

### **Study Limitations**

The *Language Study Instrument* was developed especially for use in this study and has a number of areas where revision is needed prior to future use. Some participants did not complete all of the survey questions. Additionally, some confusion about questions to answer seemed to be a concern when responding to the speaking of other languages. Several primarily English speakers noted that they had learned other languages (e.g., Spanish, French) but then appeared uncertain about the ways to proceed. Some questions that should have been completed were skipped. Validity and reliability of the instrument will also need to be measured in future use. The study instrument used self-perception responses and some may have responded with greater or lesser confidence than seen if measured against actual grades. Some questions may have misinterpreted and responses might fail to accurately capture differences between perceptions and reality. Future use of the instrument should also include other indicators of student success such as course grades or GPA.



## Conclusions

Although students may speak English as a second language, the majority of participants believed they read, spoke, wrote, and understood English well. Differences between what is perceived and abilities measured by GPA or TOEFL test scores were not examined, but are areas for future consideration. Investigations might also consider employing methods to differentiate between speaking perceptions and actual abilities. Intrinsic factors can also enter into students' perceptions of academic success (e.g., stress at home, needs to work, financial constraints, peer relationships) and might be considered in future studies as other influences on academic success. Finally, cohort studies that examined changes between nursing education program entry and graduation might suggest areas where interventions have or could make important differences in academic success for ESL and other nursing students.

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Table 1 Inter-Item Reliability with Cronbach's Alpha for Independent Variables

Foreign Speech in School Setting

How often do you speak to those that speak other languages at class times?

How often do you speak to those that speak other languages during clinical?

In labs, how often do you speak to those that speak other languages?

Foreign Speech Outside School Setting

How often do you speak a language other than English with your spouse?

How often do you speak a language other than English with children?

How often do you speak a language other than English with family members?

How often do you speak a language other than English with friends?

How often do you speak a language other than English at home?

English Speaking Level

I understand English.

I speak English.

I read English.

I write English.

Comfort Communicating

I make new foreign-speaking friends easily

I am at ease when others speak differently

I speak out loud in class

I ask questions during class

I talk to peers in laboratory

I talk to nurses in clinical settings

I talk to patients in clinical settings

I talk to family members in clinical settings

Difficulty With Assignments

Q15a1. I understand reading assignments

Q15a2. I understand test questions

Q15a3. I understand faculty explanations

<i>N</i>	Cronbach's Alpha
3	0.838
5	0.828
4	0.953
8	0.791
3	0.802

Table 2 Descriptive Statistics for ESL Students				
Continuous variable	<i>N</i>	<i>M</i>	<i>SD</i>	Min
Frequency of Foreign Speech (School)	174	6.79	2.73	3
Frequency of Foreign Speech (Outside School)	45	11.84	2.65	5
English Speaking Level	157	14.88	1.88	8
Comfort Communicating	153	19.90	3.12	12
Difficulty With Assignments	159	4.09	1.23	3
Student Success	167	7.17	1.49	1

Max	
12	
15	
16	
24	
7	
10	





Table 4 Multiple Linear Regression Predicting Student Success				
Predictors	Unstandardized		Standardized	
	$\beta$	<i>SE</i>	$\beta$	
Prior Degree	-.226	.11	-.076	
J2	.252	.15	.074	
S1	.567	.16	.154	
S2	.831	.16	.240	
Frequency of Foreign Speech in School	.022	.02	.039	
English Speaking Level	.129	.04	.125	
Comfort Communicating	.060	.02	.126	
Difficulty with Assignments	-0.229	.05	-0.205	

ed			
	<i>t</i>	<i>p</i>	
	1.99	.047	
	1.63	.103	
	3.48	.001	
	5.32	.000	
	1.00	.319	
	3.07	.002	
	2.98	.003	
	4.97	.000	

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Table 1 Inter-Item Reliability with Cronbach's Alpha for Independent Variables

Foreign Speech in School Setting

How often do you speak to those that speak other languages at class times?

How often do you speak to those that speak other languages during clinical?

In labs, how often do you speak to those that speak other languages?

Foreign Speech Outside School Setting

How often do you speak a language other than English with your spouse?

How often do you speak a language other than English with children?

How often do you speak a language other than English with family members?

How often do you speak a language other than English with friends?

How often do you speak a language other than English at home?

English Speaking Level

I understand English.

I speak English.

I read English.

I write English.

Comfort Communicating

I make new foreign-speaking friends easily

I am at ease when others speak differently

I speak out loud in class

I ask questions during class

I talk to peers in laboratory

I talk to nurses in clinical settings

I talk to patients in clinical settings

I talk to family members in clinical settings

Difficulty With Assignments

Q15a1. I understand reading assignments

Q15a2. I understand test questions

Q15a3. I understand faculty explanations

<i>N</i>	Cronbach's Alpha
3	0.838
5	0.828
4	0.953
8	0.791
3	0.802

Table 2 Descriptive Statistics for ESL Students				
Continuous variable	<i>N</i>	<i>M</i>	<i>SD</i>	Min
Frequency of Foreign Speech (School)	174	6.79	2.73	3
Frequency of Foreign Speech (Outside School)	45	11.84	2.65	5
English Speaking Level	157	14.88	1.88	8
Comfort Communicating	153	19.90	3.12	12
Difficulty With Assignments	159	4.09	1.23	3
Student Success	167	7.17	1.49	1

Max	
12	
15	
16	
24	
7	
10	





Table 4 Multiple Linear Regression Predicting Student Success				
Predictors	Unstandardized		Standardized	
	$\beta$	<i>SE</i>	$\beta$	
Prior Degree	-.226	.11	-.076	
J2	.252	.15	.074	
S1	.567	.16	.154	
S2	.831	.16	.240	
Frequency of Foreign Speech in School	.022	.02	.039	
English Speaking Level	.129	.04	.125	
Comfort Communicating	.060	.02	.126	
Difficulty with Assignments	-0.229	.05	-0.205	

ed			
	<i>t</i>	<i>p</i>	
	1.99	.047	
	1.63	.103	
	3.48	.001	
	5.32	.000	
	1.00	.319	
	3.07	.002	
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Table 3 Means and Standard Deviations for Student Success by Demographics							
			<i>n</i>	<i>M</i>	<i>SD</i>	<i>t/F</i>	<i>p</i>
Campus						1.57	0.116
	Dallas		403	7.36	1.47		
	Houston		236	7.17	1.52		
Gender						.04	0.965
	Male		113	7.29	1.46		
	Female		526	7.29	1.50		
Prior Degree						3.33	0.001
	Yes		333	7.47	1.45		
	No		304	7.08	1.51		
Student Level						13.56	<.001
	J1		186	6.90	1.66		
	J2		164	7.07	1.33		
	S1		130	7.47	1.48		
	S2		159	7.82	1.25		

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## Academic Success of Undergraduate Nursing Students

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