

Peer Reviewed Article

ISSN: 2162-3104 Print/ ISSN: 2166-3750 Online
Volume 5, Issue 1 (2015), pp. 60-71
©*Journal of International Students*
<http://jistudents.org/>

Impact of English Proficiency on Academic Performance of International Students

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Abstract

Using an ex-post facto, non-experimental approach, this research examined the impact of English language proficiency and multilingualism on the academic performance of international students enrolled in a four-year university located in north central Louisiana in the United States. Data were collected through a self-reported questionnaire from 59 students who were in their sophomore, junior or senior year of college. Statistical analyses revealed significant differences in language proficiency and multilingualism in relation to academic performance. The highest mean GPA was evident among students who had reported high levels of self-perceived English language proficiency, and among students who spoke at least three languages.

Keywords: International students, self-perceived English proficiency, multilingualism, academic performance.

In recent years, the number of international students in U.S. institutions of higher education has increased to a record high. According to the Institute of International Education (IIE, 2013), the number of international students studying in U.S.-based postsecondary institutions increased by 7% during 2012-2013 compared to the previous academic year (IIE, 2013). The top three countries with most international students in the United States were China (28.7%), India (11.8%), and South Korea (8.6%) as reported by IIE (2013). Unlike domestic students, international students, especially those from non-English speaking countries, might have difficulties understanding lectures and interacting with their professors due to lack of English proficiency (Ramsay, Barker, & Jones, 1999; Selvadurai, 1998). According to Cummins (1983), it usually takes longer for immigrant students to reach academic norms in a second language (i.e., 5 to 7 years) than to acquire interpersonal communication skills required for day-to-day conversation (i.e., about 2 years). It is assumed that international students from non-English speaking backgrounds (NESB) who reside temporarily in a host country for the purpose of obtaining a

degree might take even longer to obtain academic skills in the second language, and their limited language skills might be one of the determinants directly or indirectly influencing their academic success. Therefore, their language proficiency might be a key factor in their academic success (Daller & Phelan, 2013).

This research was conducted to investigate the relationship between self-perceived English language proficiency and academic performance of international students in a 4-year university located in north central Louisiana, with the hope of providing insights for administrators or faculty members who wish to promote international students' academic success. Furthermore, the relationship between multilingualism and academic performance was also investigated in this study, hoping to fill the gap that exists in the current literature.

Related Literature

Existing research on factors contributing to academic achievement of students in higher education reveals a number of factors in multiple dimensions. In general, these factors fall into the following four categories: academic, psychosocial, cognitive, and demographic (McKenzie & Schweitzer, 2001). All these factors have been extensively explored and examined by previous research. For example, among academic factors, prior academic achievement (e.g., McKenzie & Schweitzer, 2001; McKenzie, Gow, & Schweitzer, 2004), learning skills and habits (e.g., Abbott-Chapman, Hughes, & Wyld, 1992), learning strategies (i.e., general learning strategies, subject-matter-specific strategies) and approaches (e.g., Duff, Boyle, Dunleavy, & Ferguson, 2004; Pokay & Blumenfeld, 1990; Sadler-Smith, 1996; Watkins & Hattie, 1981) were explored as variables influencing academic performance. With regard to the psychosocial dimension, social integration into the university system, motivation, anxiety, social and emotional support, and psychological health were explored (e.g., Terenzini & Pascarella, 1978). The cognitive dimension, which includes self-efficacy (e.g., McKenzie & Schweitzer, 2001) and an individual's attribution style (e.g., Peterson & Barrett, 1987) were also studied in many empirical studies. Lastly, various demographic features such as gender and age were examined in relation to academic performance in higher education (Li, Chen, & Duanmu, 2010).

These factors that were identified in the literature are applicable to both domestic and international students in higher education. However, there are other factors involved when it comes to the international students' academic performance in higher education, since international students have unique characteristics that distinguish them from domestic students (Li et al., 2010). Many empirical studies indicate that English proficiency plays a crucial role for international students in completing their studies in English-medium institutions, especially for those students whose first language is not English (e.g., Li et al., 2010; Wardlow, 1999). In addition to English proficiency, some culture-specific and cross-cultural issues (e.g., academic culture shock associated with a different education system, lecture style, and relationships between students and lecturers) have been identified as factors that contribute to the international students' potential for academic success (Li et al., 2010).

Importantly, the socio-cultural and psychological adjustment of international students might be influenced by their English proficiency, which might impact their academic success. For example, Yang, Noels, and Saumure (2006) highlighted the role of English self-confidence in the process of socio-cultural and psychological adjustment to an English-speaking academic environment. Further, Trice (2007) reported that weak English language skills were perceived as one of the reasons why international students were isolated from local students and faculty members. These findings indicate that English proficiency is indirectly associated with academic performance of international students through its impact on other factors in the socio-cultural and psychological dimensions.

Research on factors affecting the international students' academic success in foreign institutions is ongoing, not only due to increasing numbers of international students, but also due to changing demographics of international students. The literature reviewed below presents some existing research on the relationship between self-perceived English language proficiency and academic performance of international students, as well as the relationship between multilingualism and academic performance.

Self-perceived English language proficiency and multilingualism were the main independent variables examined within this study.

Language Proficiency and Academic Performance

Many researchers (e.g., Hill, Storch, & Lynch, 1999; Huong, 2001; Johnson, 1988; Kerstijens & Nery, 2000; Krausz, A. Schiff, J. Schiff, & Hise, 2005; Light, Teh-Yuan, & Weinstein-Shr, 1991; Light, Xu, & Mossop, 1987; Staynoff, 1997; Woodrow, 2006) investigated the relationship between language proficiency and academic performance among different groups of international students in English-speaking institutions by utilizing standardized test scores such as TOEFL (Test of English as a Foreign Language) and IELTS (International English Language Testing System). In a study conducted at the State University of New York at Albany, Light et al. (1987) determined a statistically significant positive correlation between TOEFL scores and grade point averages (GPAs) among 376 international graduate students ($r = .14, p < .05$). Similar results were reported by Johnson (1988), who conducted a confirmatory study at the University of Wisconsin - Green Bay among 196 international undergraduate students. There was a moderately low correlation between overall TOEFL scores and mean GPAs (Johnson, 1988). Students with TOEFL scores lower than 500 had significantly lower grades compared to those with TOEFL scores of 500 or above.

Some other studies also produced similar results on the relationship between language proficiency measured by TOEFL and GPA (e.g., Light et al., 1991; Staynoff, 1997). Staynoff (1997) examined factors influencing international students' academic achievement among 77 international freshmen students who were in their first six months of studies. Based on the results, a statistically significant correlation ($r = .26, p = .01$) was reported between TOEFL scores and GPAs (Staynoff, 1997). This meant that participants who had high TOEFL scores were more likely to have a high GPA, and those who had low TOEFL scores were more likely to have a low GPA.

While there are a number of studies emphasizing the relationship between language proficiency as measured by TOEFL scores and academic achievement as measured by GPA, there are also studies implying that TOEFL scores might not be a good predictor for international students' academic success (Krausz et al., 2005; Xu, 1991). For example, the findings of a study conducted by Krausz et al. (2005) showed that TOEFL scores were not associated with academic performance of international graduate students majoring in accounting. Xu (1991) also examined the impact of students' English proficiency and background variables on international students' academic performance among 450 international graduate students enrolled in three large universities in the United States. The findings revealed that self-perceived English proficiency was a predictor for academic difficulty that students perceived, but TOEFL scores were not significantly associated with students' actual academic difficulty (Xu, 1991).

Another recent study reported results of a meta-analysis of 22 studies on the relationship between English language proficiency and academic achievement of international students in U.S. institutions of higher education (Wongtrirat, 2010). The studies reviewed were conducted between 1987 and 2009 using TOEFL score as a measure of English proficiency, and GPA and course completion as measures for academic performance. Based on the results of the meta-analysis, it was concluded that "TOEFL has a small predictive ability on academic achievement of international students whether measured by GPA or the course completion" (Wongtrirat, 2010, p. 45).

Available literature on the relationship between IELTS scores and academic performance of international students is as inconsistent as is the case for TOEFL. Hill, Storch, and Lynch (1999), Huong (2001), and Woodrow (2006) found a statistically significant positive, but weak relationship between IELTS and academic performance among international students, especially those from non-English speaking backgrounds. Inconsistently, Kerstijens and Nery (2000) found no statistical relationship between IELTS and GPA.

Overall, the review of existing literature in relation to international students' academic performance and English proficiency indicated that the majority of studies investigated the relationship between TOEFL or IELTS score and GPA. The findings were contradictory, implying that English proficiency measured solely by TOEFL or IELTS scores cannot be a reliable predictor of international

students' academic success. Moreover, Fox (2004) noted that language tests do not measure other factors such as social networks of support, financial security, time availability for study abroad, acculturation, and academic adjustment that might impact international students' academic performance significantly. Other researchers also indicated other contributing factors such as inadequate background knowledge, poor study skills, ESL support, difficulty of course work, differences in language demands for different courses, motivation, maturity, and previous experiences (see, Daller & Phelan, 2013; Drennan & Rohde, 2002; Hill et al., 1999; Huong, 2001; Kerstijens & Nery, 2000; Light et al., 1987; Woodrow, 2006). Therefore, additional investigations are needed to explore other constructs in measuring English proficiency, as well as other variables that might predict international students' academic success.

Multilingual International Students and Academic Success

There is a dearth of studies on academic success of multilingual students who speak two or more languages, implicating cognitive advantages or disadvantages of being multilingual in American higher education. Kovalik (2012) investigated the association between multilingualism and academic success measured by GPA among 305 undergraduate students. The researcher administered a survey to discover the number of languages that the participants were fluent in and their overall grade point averages. The findings revealed no relationship between multilingualism and GPA. Interestingly, those who spoke more than one language obtained lower GPA. However, in the study, the sample size representing those who spoke two or more languages was too small (i.e., only 12.43% out of total sample), which might have skewed the results (Kovalik, 2012). It was also not clear which language was each respondent's first language. It is therefore hard to conclude that international students who are multilingual, but do not have English as a mother tongue, have cognitive advantages or disadvantages in predominantly English speaking institutions. Hence, in addition to investigating the relationship between self-perceived English language proficiency and academic performances of international students, this study also examined how GPA is related to the number of languages spoken by international students.

The following research questions were addressed in this study: (a) Are there significant differences in the academic performance of international students in relation to the level of English language proficiency?; (b) Are there significant differences in the academic performance of international students in relation to the number of languages spoken?

Research Method

Research Design and Instrumentation

An ex-post facto, non-experimental approach was used in this study to examine the relationship between English language proficiency and academic performance of international students enrolled in a 4-year university located in north central Louisiana. A standardized self-reported questionnaire was developed and utilized to collect data. In addition to some basic demographic questions, the instrument included items on English language proficiency. Students were asked to rate their English language proficiency using a 4-point Likert scale: 1 (*poor*), 2 (*average*), 3 (*good*), and 4 (*excellent*). They were also asked to indicate whether they had academic difficulties in understanding English, specifically in reading, writing, listening, and speaking. A 4-point Likert-scale was used for these items as well: 1 (*always*), 2 (*often*), 3 (*sometimes*), and 4 (*never*). The questionnaire included an item on the number of languages spoken as well. Participants indicated whether English was their 1st, 2nd, 3rd or more language. Participants' academic performance was measured by their current GPA. In addition, participants were also asked to indicate how they felt their English language skills affected their academic achievement.

Participants and Data Collection

Researchers obtained an IRB approval from the university where the study was carried out. The university had around 300 international students. Sixty-five surveys were randomly distributed, out of which 59 were returned. Five of those returned surveys were incomplete. Therefore, the sample

consisted of randomly selected 54 international students who were ranked as sophomores, juniors, or seniors in undergraduate programs. The sample was about one sixth of the overall international student population at the participating institution.

Participation in the study was voluntary. Participants were given *informed consent forms*, which provided information regarding the study, including the contact information of the principal investigator. Participants were given five days to complete the surveys and return them together with signed informed consent forms to the principal investigator.

Data Analysis

SPSS (2008) statistical software package was utilized to analyze data. Students' academic performance measured by their GPAs was the outcome (dependent) variable, while self-rated questions about language proficiency and language difficulty, and the number of languages spoken were independent variables. Descriptive statistics of the sample and ANOVA inferential statistics were applied to analyze the data. In addition, multiple regression analysis was utilized to determine which independent variables were the best predictors of international students' academic performance.

Table 1
Frequency of Having Difficulties in Writing, Reading, Listening, and Speaking

Variable	Categories	<i>n</i> (%)
Difficulties in writing	Always	11 (20.4%)
	Often	7 (13.0%)
	Sometimes	27 (50.0%)
	Never	9 (16.7%)
Difficulties in reading	Always	0
	Often	0
	Sometimes	30 (55.6%)
	Never	24 (44.4%)
Difficulties in listening	Always	7 (13.0%)
	Often	14 (25.9%)
	Sometimes	28 (51.9%)
	Never	5 (9.3%)
Difficulties in speaking	Always	11 (20.4%)
	Often	13 (24.1%)
	Sometimes	27 (50.0%)
	Never	3 (5.6%)

Results

Descriptive statistics were computed to learn about the characteristics of the sample. Out of the 59 questionnaires received, 54 were accepted as complete and analyses were conducted based on these responses. There were 31 (57.4%) females and 23 (42.6%) males students. Of the participants, 28 (51.9%) were sophomores, 15 (27.8%) were juniors, and 11 (20.4%) were seniors. Participants were

asked to indicate whether English was their first, second, third or more language. For 16.7% of them (9 participants), English was their first language because it was the official language in their home countries; 51.9% indicated English as their second language and 31.5% listed English as their third language. Participants were also asked to rate their English proficiency level: 25.9% of the participants rated their English language proficiency as *excellent*, 53.7% rated as *good*, while 20.4% rated as *average*. When asked whether English as the language of instruction limits their academic achievement, 57.4% said *yes*, and 42.6% said *no*.

Academic majors represented in the sample were Political Science, Education, Psychology, Mass Communication, Electronic Engineering Technology, Criminal Justice, Business Management, Nursing, Accounting, Public Administration, and Computer Sciences. As for the participants' GPAs, 18% were in the 3.5-4.0 range, 48.1% were in the 3.0 to 3.4 range, while only 18.5% were in the 2.5-2.9 range. In addition, participant responses indicated the frequency of having difficulties in writing, reading, listening, and speaking English. From the results displayed in Table 1, it is apparent that at least half of the participants sometimes had difficulties in all four categories. Based on the responses, it was also evident that 57.4% of the participants believed that having English as the language of instruction limited their academic performance, while 42.6% did not feel the same way as their peers. Surprisingly, although 16.7% indicated that English is their first language, some of them still reported having difficulties in writing, listening, and speaking.

Factorial analysis of variance was conducted to find out whether there were significant differences in academic performances of international students with different English language proficiency levels, and whether there were significant differences in academic performances of international students who speak multiple languages. Table 2 presents the group mean and standard deviations of the GPA for self-perceived language proficiency categories. Table 3 displays the group mean and standard deviations of the GPA for the number of languages spoken. Interestingly, the highest mean GPA (3.76) was evident among students who indicated English as their third language. The highest mean GPA (3.57) was also evident among students who rated their English proficiency as excellent. However, the group that indicated English as their second language had the lowest mean GPA (2.68).

Table 2
Group Mean and Standard Deviations of GPA for Language Proficiency

<i>English Proficiency Level</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Average	11	3.09	.831
Good	29	2.97	.680
Excellent	14	3.57	.514
Total	54	3.15	.711

Table 3
Group Mean and Standard Deviations of GPA for the Number of Languages

<i>English is your 1st, 2nd, or 3rd language</i>	<i>n</i>	<i>M</i>	<i>SD</i>
First	9	3.44	.726
Second	28	2.68	.476
Third	17	3.76	.437
Total	54	3.15	.711

ANOVA results, presented in Table 4, showed significant main effects for English Language Proficiency (englevel) [$F(2, 45) = 4.03, p = .025, \text{partial } \eta^2 = .152$] and for the number of languages spoken (language) [$F(2, 24) = 21.24, p < .001, \eta^2 = .486$]. Interaction between those two factors was significant as well, $F(4, 45) = 3.033, p = .027, \eta^2 = .212$.

Table 4
ANOVA Summary Table

Dependent Variable: gpa

Source	SS	df	MS	F	P	ES
Between treatments	17.124 ^a	8	2.140	9.939	.000	.639
englevel	1.735	2	.867	4.027	.025	.152
language	9.148	2	4.574	21.239	.000	.486
englevel * language	2.613	4	.653	3.033	.027	.212
Within treatments	9.691	45	.215			
Total	562.000	54				
Corrected Total	26.815	53				

a. R Squared = .639 (Adjusted R Squared = .574)

In order to determine which language proficiency categories were significantly different, Bonferroni's post hoc test was conducted. Results showed that students' GPAs were significantly different for those students who perceived that their English proficiency level was *average* to those students who thought their English proficiency level was *excellent*. The difference was the same with those who thought their level was *good*, compared to the ones who thought their level was *excellent*. There was no significant difference between *average* and *good*. In terms of the number of languages spoken, GPAs were significantly different between those students who had English language as their *second* and those who had English as their *first* or *third* language. However, there was no significant difference between those who had English as their *first* and those who had English as their *third* language.

Table 5
Coefficients for Model Variables

	B	β	t	p	Bivariate r	Partial r
In your opinion your English level is	.359	.345	2.741	.009	.254	.371
difficulties in writing	.257	.359	1.539	.131	.239	.219
difficulties in reading	.012	.009	.058	.954	-.029	.008
difficulties in listening	.136	.160	1.234	.223	.076	.177
difficulties in speaking	-.050	-.062	-.285	.777	.203	-.041
English is 1st, 2nd, 3rd, or 4th language	-.545	-.524	-3.771	.000	-.303	-.482

To further examine the relationship between English language proficiency and academic performance, a standard multiple regression was utilized. GPA was the dependent variable, while self-perceived English language proficiency, number of languages spoken, and having academic difficulties in reading, listening, speaking and writing were the independent variables. Results indicated that the overall model of six variables predicted GPA, $R^2 = .332, R^2_{\text{adj}} = .246, F(6, 47) = 3.89, p < .05$. This model accounted for 33.2% of variance for GPA. A summary of regression coefficients presented in Table 5 indicated that only two out of the six variables significantly contributed to the model. Although the sample size was relatively small for regression analysis, it was, however, acceptable for this analysis. According to Cohen and Cohen (as cited in Phillips, n.d.), when having a sample size of 50, and 5 or 10 independent variables included in the multiple regression analysis, the R^2 value has to be 23 or 29%

respectively or above in order for the results to be considered statistically significant at .05 level. In this study, the sample size was 54, there were 6 independent variables included in the analysis and the R^2 value was 33.2%. Thus, it is appropriate to conclude that the use of multiple regression analysis was adequate, and self-perceived English language proficiency and the number of languages spoken were significantly contributing variables for the international students' academic performance as measured by their GPAs.

Summary of Findings and Discussion

This study intended to contribute to existing research on the relationship between English language proficiency and academic performance of international students, and to fill the research gap on the relationship between the number of languages spoken and academic performance. Based on the results, it is concluded that (a) there are significant differences in the academic performances of international students with different English language proficiency levels, and (b) there are significant differences in the academic performance of international students who speak multiple languages.

Results on language proficiency and academic performance were consistent with previous research (e.g., Xu, 1991) that reported that there was indeed a relationship between self-perceived English language proficiency and academic performance as measured by GPA. Findings on the effect of multilingualism on academic performance revealed that there were indeed significant differences in academic performances of international students who spoke multiple languages. The highest mean GPA was evident among those who spoke at least three languages, as they had indicated English as their third language. Interestingly, those who had listed English as their second language had the lowest mean GPA. The relationship between the number of languages spoken and academic success is still an area that needs further research.

The United States has been one of the largest host countries with a 22% market share in global higher education (Robertson, 2007). Even though the proportion of international students in U.S. institutions of higher education is less than 4%, they significantly contribute both to higher education in the U.S. and the local economy (IIE, 2013). It is therefore important for administrators and educators to consider the needs of the international student population and address challenges associated with their academic experience in U.S. institutions of higher education. Many of these students are non-native English speakers or they speak English as a second, third, or even a fourth language. Limited language proficiency could put international students at risk and result in their departure from the U.S. without earning a degree. The departure of these students will lead to negative results on overall student retention and graduation rates in U.S. institutions of higher education. Recruitment of new students would be more costly than retaining students who are already matriculating through a higher education curriculum. Additionally, promoting academic success of international students will contribute to the enhancement of institutional reputations and increased market values of U.S. higher education in the global education market.

The findings of the present study implicate the role of English proficiency on academic achievement of international students. However, the previous analyses of literature indicated that the effect of English proficiency on academic achievement among international students should vary depending on the required levels of language skills in completing courses or programs (cf., Light et al., 1987, Johnson, 1988). Therefore, findings are applied cautiously. Along with language proficiency, there may be many other factors associated with international students' academic success such as motivation, learning strategies, background variables, and personal characteristics (Staynoff, 1997). As noted in the literature review, other contributing factors, especially those within the cross-cultural dimension influencing academic performance of international students, should be considered as intervening factors (Li et al., 2010). Academic culture shock and difficulties in cross-cultural adjustment may create barriers in international students' sociocultural and psychological adjustment, which in turn could affect their academic performance. Hence, the unique experiences of international students in the process of cross-cultural adjustment should be taken into consideration.

The findings of this study in relation to multilingualism were interesting. International students, who spoke at least three languages, had the highest mean GPA. This, perhaps, implies that some people tend to learn foreign languages better and once they overcome barriers related to one foreign language, they are more likely to learn another language and be successful. This, however, is only an assumption as there is no existing research on the relationship between multilingualism and academic performance of international students. This is an area that needs further research involving a larger sample size, in order to make conclusions on the effect of multilingualism on academic performance.

Implications for Practice

Based on the findings of this study, several implications were drawn, which lead to some recommendations for future practices. These implications could be useful for U.S. institutions of higher educational when addressing the needs of their international students and when designing and providing support programs for them. Moreover, implementing these recommendations would not only help institutions to meet international students' needs and expectations, but will also have positive effects on overall retention and graduation rates of the institutions.

This study revealed that self-perceived English proficiency is associated with international students' academic performance. To support international students' academic success, it is necessary to offer support services specifically designed for international students at the institutional level. These services should include English-language courses, tutoring, and supplemental courses that will help to improve their language and academic skills (Andrade, 2006). Furthermore, professors in different disciplines should identify the needs of international students and provide appropriate support by incorporating various pedagogical strategies that helps students to improve their English academic skills (Andrade, 2006; Shapiro, Farrelly, & Tomaš, 2014).

Another area for consideration is the implementation of student activities. Lee (2013), a faculty member from the University of Arizona, believes that social engagement is critical for academic success in college. Implementing activities that provide opportunities for international students to meet with domestic students and develop relationships will not only contribute to their adjustment process, but will also have a positive impact on their language skills. There are many international students who arrive with a high level of English proficiency in reading and writing, but who lack listening and speaking skills due to lack of previous practice. Interactions with domestic students would help international students to become proficient, especially in listening and speaking - skills that are crucial in face-to-face classrooms.

Additionally, ongoing communications between administrators, international student advisors, and faculty members are essential factors for having an international student-friendly campus. Ongoing communications will help to promote mutual understanding and collaborative decision making among all the stakeholders involved, which will in turn benefit the international students and the university. Moreover, ongoing communications would also support the integration of international students into mainstream student life on campuses. International students will not feel isolated, and their social adjustment will be easier.

Implications of the Current Study

Language proficiency solely measured by TOEFL or IELTS might not be a good predictor of academic success because other influential factors might be omitted in the investigations (Light et al., 1987; Fox 2004). In fact, the standardized test scores commonly utilized as valid cut-off entry points of international students at colleges or universities have been constantly scrutinized by the research community (Alderson, Krahnke, & Stansfield, 1987). Hence, other studies included alternative measures of assessing language abilities such as self-perceived language proficiency (e.g., Takahashi, 2009; Xu, 1991). Takahashi (2009) found that the level of self-perceived language competence was negatively associated with the level of anxiety but positively related with language proficiency test

scores. In terms of the relationship between self-rating language proficiency and academic success, Takahashi (2009) discovered a statistically significant correlation. Moreover, Xu (1991) indicated that self-perceived English proficiency was considerably associated with the level of academic difficulty in all four dependent variables (i.e., reading, writing, speaking, listening). Taken together, self-rating language proficiency, instead of language skills that are measured solely by standardized test score might be a more effective measure for this study. This is because the minimum language test score required for entry into academic programs does not measure improvements of English language skills over the course of study. Furthermore, self-perceived English ability might reflect various factors in the multiple dimensions influencing academic performance such as self-efficacy, motivation, confidence, and a positive attitude toward learning in a second language. Thus, the present study focused on examining the relationship between self-perceived English proficiency and GPAs of international students. Additionally, the relationship between the number of languages spoken and GPAs of international students was examined. Both of these areas require more research, and the findings of this study aimed to fill the gaps that exist in current literature.

Limitations and Recommendations for Future Research

This study had several limitations. First, it was limited to one institution. It is recommended for further studies to include more than one institution in order to have a larger sample size. Second, this study examined the relationship between self-perceived language proficiency and academic performance of international students. Future studies may consider examining the effects of standardized tests like TOEFL in addition to self-perceived English proficiency and compare the results. Third, this research was limited to a quantitative survey. Future research could employ a mixed methods approach in order to obtain more comprehensive information on international students' perceptions of challenges associated with their academic endeavors in a foreign country. Finally, more research is needed on the relationship between multilingualism and the academic performance of international students. This is an area the researchers of this study will explore further. Educators interested in this area are welcome to contribute to a larger scale study, which will be conducted in the near future.

References

- Abbott-Chapman, J., Hughes, P., & Wyld, C. (1992). *Monitoring student progress: A framework for improving student performance and reducing attrition in higher education*. Hobart: Australia, National Clearinghouse for Youth Studies.
- Alderson, J. C., Krahnke, K. J., & Stansfield, C. W. (Eds.) (1987). *Reviews of English language proficiency*. Washington, DC: Teachers of English to Speakers of Other Languages (TESOL).
- Andrade, M. S. (2006). International students in English-speaking universities: Adjustment factors. *Journal of Research in International Education, 5*, 131-154. doi: 10.1177/1475240906065589
- Cummins, J. (1983). Language proficiency and academic achievement. In J. Oiler (Ed.), *Issues in language testing research* (pp. 108-129). Rowley, MA: Newbury House.
- Daller, M. H., & Phelan, D. (2013). Predicting international student study success. *Applied Linguistics Review, 4*(1), 173-193. doi:10.1515/applirev-2013-0008
- Drennan, L. G., & Rohde, F. H. (2002). Determinants of performance in advance undergraduate management accounting: An empirical investigation. *Accounting and Finance, 42*, 27-40.
- Duff, A., Boyle, E., Dunleavy, K. & Ferguson, J. (2004). The relationship between personality, approach to learning and academic performance. *Personality and Individual Difference, 36*, 1907-1920.
- Fox, J. (2004). Test decisions over time: Tracking validity. *Language Testing, 21*(4), 437-465.
- Hill, K., Storch, N., & Lynch, B. (1999). A comparison of IELTS and TOEFL as predictors of academic success. In R. Tullloh (Ed.), *IELTS Research Reports* (Vol. 2, pp. 53-63). Canberra: IELTS Australia.

- Huong, T. (2001). The predictive validity of the International English Language Testing System (IELTS) test. *Post-Script*, 2(1), 66-94.
- Institute of International Education (2013). *Open doors 2013: International students in the United States and Study Abroad by American Students are at all-time high*. Retrieved from <http://www.iie.org/en/Who-We-Are/News-and-Events/Press-Center/Press-Releases/2013/2013-11-11-Open-Doors-Data>
- Johnson, P. (1988). English language proficiency and academic performance of undergraduate international students. *TESOL Quarterly*, 22, 186-168. doi:10.2307/3587070
- Kerstijens, M., & Nery, C. (2000). Predictive validity in the IELTS test: A study of the relationship between IELTS scores and students' subsequent academic performance. *IELTS Research Reports*, 3, 85-108.
- Kovalik, A. (2012). The impact of multilingualism on grade point average among college undergraduates. *Perspectives (University of New Hampshire)*, 142-148.
- Krausz, J., Schiff, A., Schiff, J., & Hise, J. V. (2005). The impact of TOEFL scores on placement and performance of international students in the initial graduate accounting class. *Accounting Education: An International Journal*, 4(1), 103-111. doi:10.1080/0963928042000256671
- Lee, J. J. (2013, July 11). *Find on-campus support for international students*. Retrieved from <http://www.usnews.com/education/blogs/international-student-counsel/2013/07/11/find-on-campus-support-for-international-students>
- Li, G., Chen, W., & Duanmu, J-L. (2010). Determinants of international students' academic performance: A comparison between Chinese and other international students. *Journal of Studies in International Education*, 14, 389-405. doi:10.1177/1028315309331490
- Light, R. L., Teh-Yuan, W., & Weinstein-Shr, G. (1991). Soviet students at U. S. colleges: Social perception, language proficiency and academic success. *TESOL Quarterly*, 25, 179-185. doi:10.2307/3587048
- Light, R., Xu, M., & Mossop, J. (1987). English proficiency and academic performance of international students. *TESOL Quarterly*, 21, 251-261. doi: 10.2307/3586734
- McKenzie, K., Gow, K., & Schweitzer, R. (2004). Exploring first year academic achievement through structural equation modelling. *Higher Education Research and Development*, 23, 95-112.
- McKenzie, K., & Schweitzer, R. (2001). Who succeeds at university? Factors predicting academic performance in the first year Australian university students. *Higher Education Research and Development*, 20, 21-33.
- Peterson, C., & Barrett, L. (1987). Explanatory style and academic performance among university freshman. *Journal of Personality and Social Psychology*, 53, 603-607.
- Phillips, J. A. (n.d.). *Application of statistics in educational research*. Retrieved from <http://peoplelearn.homestead.com/MULTIVARIATE/Module11MultipRegress1.html>
- Pokay, P., & Blumenfeld, P. (1990). Predicting achievement early and late in the semester: The role of motivation and use of learning strategies. *Journal of Education Psychology*, 82, 41-50.
- Ramsay, S., Barker, M., & Jones, E. (1999). Academic adjustment and learning processes: A comparison of international and local students in first-year university. *Higher Education Research & Development*, 18(1), 129-144.
- Robertson, S. (2007, October, 1). Battling for market share 1: the 'Major Players' and international student mobility. *Global Higher Ed*. Retrieved from <http://globalhighered.wordpress.com/2007/10/01/battling-for-market-share-the-major-players-and-international-student-mobility/>
- Sadler-Smith, E. (1996). Approaches to studying: age, gender and academic performance. *Educational Studies*, 22, 367-380.
- Selvadurai, R. (1998). Problems faced by international students in American colleges and universities. *Community Review*, 16, 153-158.
- Shapiro, S., Farrelly, R., & Tomaš, Z. (2014). *Fostering International Student Success in Higher Education*. Alexandria, VA: TESOL Publications.

- SPSS Inc. (2008). *SPSS Statistics for Windows*, (Version 17.0). Chicago, IL: SPSS Inc.
- Stoynoff, S. (1997). Factors associated with international students' academic achievement. *Journal of Instructional Psychology*, 24(1), 56-68.
- Takahshi, A. (2009). Self-perception of English ability: Is it related to proficiency and/or class performance? *Niigata Studies in Foreign Language and Cultures*, 14, 39-48.
- Terenzini, P., & Pascarella, E. (1978). The relation of students' precollege characteristics and freshman year experience to voluntary attrition. *Research in Higher Education*, 9, 347-366.
- Trice, A. G. (2007). Faculty perspective regarding graduate international students' isolation from host national students. *International Education Journal*, 8(1), 108-117.
- Watkins, D. A., & Hattie, J. (1981). The learning processes of Australian university students' investigations of contextual and personological factors. *British Journal of Educational Psychology*, 51, 384-393.
- Wongtrirat, R. (2010). *English language proficiency and academic achievement of international students: A meta-analysis* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 1434728)
- Wardlow, G. (1999). International students of Agriculture in U.S. institutions precursors to academic success. *Journal of Agricultural Education*, 30, 17-22.
- Woodrow, L. (2006). Academic success of international postgraduate education students and the role of English proficiency. *University of Sydney Papers in TESOL*, 1, 51-70.
- Xu, M. (1991). The impact of English-language proficiency on international graduate students' perceived academic difficulty. *Research in Higher Education*, 32, 557-570.
- Yang, R, P-J., Noels, K. A., Saumure, K. D. (2006). Multiple routes to cross-cultural adaptation for international students: Mapping the paths between self-construals, English language confidence, and adjustment. *International Journal of Intercultural Relations*, 30, 487-506. doi:10.1016/j.ijintrel.2005.11.010

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