Impact of English Proficiency and Bilingual Instructions on the Student Performance: A Hypothetical Study

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Abstract

This proposed study hypothetically aims to identify the impact of bilingual instructions and English proficiency of student/faculty on the student academic performance in international universities. Research problem has been discussed through a literature review on related topics such as Faculty's teaching quality, communication and understanding, student academic performance and monolingual vs. bilingual instructions. Study framework involves: (1) gathering mixed-methods data (quantitative/qualitative), (2) analysis of the data for studying the students/faculty performance, (3) consideration of different instruction settings with common selected variables. A step-by-step procedure (methodology) has been provided with sample sizes of 40 students (divided equally into two classrooms) and 10 faculty staff selected for data gathering through developed survey and/or interview questions. Results should either support or disprove the original hypothesis that international students who have good English proficiency and taught in bilingual instructions are more successful than students who have poor English proficiency and taught in English-language only (monolingual). Research instruments included both evaluation tests and questionnaire surveys. Data were analyzed through a scaled score system were 0 refers to the lowest and 10 refers to the highest. Analyzed hypothetical results determined that the performance of international students was much better for students who had good English proficiency and taught in bilingual-instruction classes.

Keyword: Bilingual instructions, English proficiency, Academic performance, International students
Higher education

1. Introduction

The proposed educational problem to be studied is associated with the impact of poor English language proficiency on student academic performance in international universities. Most students of non-English international universities have the challenge of understanding the given materials and instructions when they are taught in the English language (Al-Khawaldeh, Bani-Khair, & Al-Edwan, 2016). It is mandatory to have proper communication in the English language between professors/lecturers and non-English (international) students to overcome understanding and learning difficulties which lead to student's lower performance.

Related research questions that should be considered to furtherly assess and solve the studied problem include the following: (1) What is the native language of the studied students and faculty staff? (2) What is the primary language of instruction in the studied classrooms of the school/university? (3) Are students admitted with a minimum requirement regarding English language proficiency? (4) Does the university faculty staff teach students in two-language (native and English) and/or English-only? (5) How does the student performance change when being taught in English-only rather than a two-language instruction system? (6) What is the student's program of study that is being evaluated? (7) What are the student background, culture and ethnicity and are they related to having better language skills? (8) Are there any bilingual students?

(9) Is it preferred to have a bilingual education to achieve fluency in both languages? (10) What is the effect of "dual immersion" where English learners, bilingual students and native English speakers are combined in a single bilingual classroom? (MYERS, 2014).

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The research that supports the existence of problem includes previous studies which found some difficulties arise from non-English professors/lecturers towards teaching non-English students in international (non-English) universities. Non-English participants selected from a Jordanian University (Hashemite University) showed that participants have encountered numerous communication difficulties when using English. Poor English negatively impacted student academic performance and professional development (Al-Khawaldeh et al., 2016). Moreover, a study was conducted in a university in North Central Louisiana showed that the highest mean GPA was evident among students with good English language proficiency, and among students who spoke at least three languages (Martirosyan, Nara M.; Hwang, Eunjin; Wanjohi, 2015). Hence, the impact of English proficiency on student academic performance must be studied to solve the lower performance problem and overcome language difficulties. This study proposes a hypothetical analysis and framework to identify the impact of bilingual instructions and English proficiency of student/faculty on the student academic performance in international universities.

2. Literature Review

2.1. Faculty's Teaching Quality

The quality of teaching of faculty staff depends on many factors. Teachers must have the minimum English language proficiency to be able to teach students effectively and act as language enhancers for the students. Teachers and/or university instructors should (1) develop their language self-awareness; (2) teach in simple vocabulary; (3) understand their student's language level, needs and strengths; (4) create opportunities for students for language practice and to be involved in the practice [oral, written]; and (5) accept useful feedback about errors and necessary language improvements from other instructors and even from professional students. Learning and teaching students in English (as a second language) is successfully possible when instructors have the appropriate language skills to ensure student's understating, engagement, participation, and collaboration in the classroom. Moreover, language issues can be overcome by developing student capability and enhancing understanding to student language capability which is associated with student's educational mobility, pedagogic variation [academic cultural differences] and language knowledge and skills (Carroll, 2012).

A previous study found that the gains of study through an additional language outweigh the losses, but there might be a decrease in the quality of teaching as well as the student overall learning results. Adopting English as the language of instructions in international universities (internationalization and modernization) is a bit of a challenge since it requires a switch from a focus on the national system and culture to an international focus. Despite that English is the dominant foreign language used in higher education institutes in Europe, Englishization poses a threat to minority and/or native languages and cultures because local and/or native languages will be rarely used for communicating and teaching students (Coleman, 2006).

The emergence of English as a global language has a considerable impact on university teaching policies and practices in various countries. Some of the problems that might occur include confusion and inconsistency; especially when the university has un-trained and unskilled teachers. In a survey study, many teachers have not met the minimum English language proficiency to successfully teach international students and provide them with needed instructions in a foreign language (English). According to Marinova-Todd, teachers in public schools (e.g. elementary education) are anything but native or native-like in English language proficiency and this raise concerns about the ability of native and native-like instructors to effectively educate students in English language (Nunan, 2003).

2.2. Communication and Understanding

It is widely acknowledged that English has become the international language of communication and that it becomes a medium of instruction at universities across the world; hence, it is mandatory to have proper communication in the English language between professors/lecturers and non-English (international) students to overcome understanding and learning difficulties which lead to student's lower performance. Previous studies found some difficulties arise from non-English professors/lecturers towards teaching non-English students in international (non-English) universities. The collected data of various non-English participants selected from Hashemite University (in Jordan) showed that participants have encountered numerous communication difficulties in reading, writing, speaking and listening when using English; and that these difficulties impact negatively on their academic and professional development (Al-Khawaldeh et al., 2016).

Most students of non-English international universities have the challenge of understanding the given materials and instructions when they are taught in the English language (Al-Khawaldeh et al., 2016). A case study was conducted in Chinese higher education institutions to determine the impact of practicing English-medium instruction (EMI) in an undergraduate business administration course. The study critically analyzed national and institutional policy statements and interviews with professors and students to identify EMI-related language problems. Findings revealed that there was a considerable misalignment between policy purposes and the actual needs of faculty and students which indicated that EMI policies and practices in Chinese higher education raise linguistic difficulties and challenges to both students and professors (i.e. inadequate English proficiency limited the effectiveness of teaching due to the suggested EMI program). The study concluded that there should be further investigations and recommendations for a successful implementation of EMI policies and practices in China (Hu, G., & Lei, 2014).

2.3. Student Academic Performance

English language proficiency of student/faculty and multilingualism have a direct impact on student performance. Earlier work in Nigeria studied the effect of English language on the academic performance of students in physics and Computer Science claiming that the English language had no influence on students' performance and there was no correlation between students' performance and their language skills (Aina, J. K., & Olanipekun, 2013). However, the study lacked so many information such as the number of students, their native language and the university primary language of instruction. The existing research problem is still valid and is an unresolved issue in many international educational institutions. The impact of English language proficiency and multilingualism on the academic performance of international university students was investigated in North Central Louisiana and showed that the highest mean GPA was evident among students with good English language proficiency, and among students who spoke at least three languages (Martirosyan, Nara M.; Hwang, Eunjin; Wanjohi, 2015). Hence, the impact of English proficiency on the student academic performance must be considered and studied carefully to come up with some suggestions and recommendations that solve the language difficulties and overcome the language barrier between students and faculty.

A previous qualitative study (in Swedish universities) explored the related learning experiences of 22 undergraduate physics students lectured in two languages (English or Swedish). The study suggested that there were significant differences in the performance of the students taught in two languages (native and second language) as compared to students taught with native-language only. However, the author believe that these differences were not only because of the language of instructions; but, the higher performance of students was due to having good lecturing techniques and strategies to mitigate any possible problems, regardless of the language, and that lecturing in two languages merely emphasized communication problems that were already present in native-language lectures. In other words, lecturers must have devise and effective lecturing strategies and behaviors to help students to cope with the shift in language and ensure students' success (Airey, J., & Linder, 2006).

2.4. Monolingual vs. Bilingual Instructions

Students in various classrooms at any international educational institution may be lectured/taught in bilingual and/or monolingual settings. The distribution of the students into classrooms should be based on their level of the English language and their background, culture, gender, and ethnicity to ensure diversity. As stated previously, in North Central Louisiana, the impact of multilingualism on the academic performance of students was investigated and showed that the highest mean GPA was evident among students who spoke at least three languages (Martirosyan, Nara M.; Hwang, Eunjin; Wanjohi, 2015). Due to the internationalization of higher education, the EMI technique has been already implemented in many universities ranging from East-Asia to Southwestern Europe. However, universities face many challenges and issues (for both lecturers and students sides) which result from practicing EMI without pre-evaluation and a solid foundation from empirical studies and theoretical back-ups (Doiz, Lasagabaster, & Sierra, 2014; Fabricius, 2013).

An earlier study was conducted at a multilingual Spanish university (where Spanish is the native language and English is the second language) to discuss the influence of EMI. Bilingual universities such as the UBC showed that low English proficiency of students hinders students' success in their study program whereas two-language instructions (bilingual education) may facilitate student's learning experiences because of the introduced multilingual environment. Yet, bi/trilingual universities may have other organizational problems from the introduction of multilingual programs and the use of English as the main language of communication (Doiz, Lasagabaster, & Sierra, 2011).

3. Framework And Variables

To accurately study the problem, the following framework must be understood which involves gathering mixed-methods data (quantitative/qualitative) and then analyzing data for studying the performance of both students/faculty under different English/instruction settings and commonly selected variables. A group of international students of 40 students (with common background, culture, gender, and ethnicity) should be divided equally into two classrooms (20 students in each class); students with high/low level of English language skills should be assigned randomly in the two classes where the first classroom (A) is based on bilingual instructions and the second classroom (B) is based on monolingual settings (i.e. the two classes had students with both high/low English levels). In other words, faculty staff will be instructed to teach students in bilingual instructions in the first class (A) and English-only language (mono-ligula education) in the second class (B). Then, the above questions along with the student performance will be evaluated, studied and surveyed throughout a complete semester for comparison purposes.

The variables that may influence this study are campus diversity, student's background, culture, gender and ethnicity, university primary language of instruction, student's native language, faculty native language, classroom educational setting (monolingual/bilingual), procedure of student's evaluation, student's program of study, and student's communication and language skills.

The importance of the study is correlated with the crucial impact of English language skills on student performance. Earlier work in Nigeria studied the effect of English language on the academic performance of students in physics and Computer Science claiming that the English language had no influence on students' performance and there was no correlation between students' performance and their language skills (Aina, J. K., & Olanipekun, 2013). However, the study lacked so many information such as the number of students, their native language and the university primary language of instruction. The existing research problem is still valid and is an unresolved issue in many international educational institutions. Hence, the study is important because dividing students into groups based on their language abilities and/or classroom educational setting (framework) will allow us to investigate language research-related questions to solve student's lower performance problem in international universities.

4. Research Methodology

Since the research problem is associated with both students and faculty, both parties will contribute to the study and data will be gathered from the two parties to have a much credible and reliable analysis. The selected sample size can be as the following: 40 students (20 per class) and 10 faculty staff. The method that will be employed in gathering data involves mixed methods (quantitative and qualitative) to understand the research problem more fully (Mills, G. E., & Gay, 2016). For quantitative/qualitative data, possible survey and/or interview questions have been developed to collect data from defined samples in both parties (student and faculty) as shown in Table 1.

Table 1. Research study and its developed survey and/or interview questions*

Study	A Proposal to Assess the Impact of English Proficiency and Bilingual Instructions on the Student Academic Performance in International Universities
Group	**Questions**
Students	Have you had previous experience with English? If yes, how many years of study?
	Have you been admitted with a minimum requirement regarding English language proficiency?
	Do you believe that bilingual instructions help you to achieve better performance?
	What are your background, culture, and ethnicity; are they related to your language skills?
	What is the student performance before and after being taught in English-language? …. …. Estimate from current grades; from 0 (lowest) to 10 (highest).
Faculty	How does the student performance change when being taught in English-only rather than a two-language instruction system?
	What is the student's program of study that is being evaluated?
	What is the student background, culture and ethnicity and are they related to having better language skills?
	Are there any bilingual students in the taught classroom? How many?
	What is the effect of "dual immersion" where English learners, bilingual students and native English speakers are combined in a single bilingual classroom?
Both	What is your native language?
	What is the primary language of instruction in the classroom?
	Do you prefer a two-language (native and English) and/or English-only instruction?
	Do you believe that bilingual instructions help you to achieve fluency in both languages?
	Do you think that English proficiency impact the student's academic performance? How do you rate the effect from 0 (lowest impact) to 10 (highest impact)?

*Survey (quantitative) questions should be reformulated in form of (yes/no); and (0 to 10 scale score system).

Data that is to be collected from survey (quantitative) questions will be compared with the data that is to be collected from interviews (qualitative) to check for similarities and differences for better comparison and contrast on the teaching quality, communication/understanding of students and their academic performance and the differences between two-language (bilingual) instruction and primary-language (monolingual) instruction classrooms (Al-Khawaldeh et al., 2016). Table 1 questions will allow us to gather data regarding English skills level, native language, preferred language of instruction (for both faculty and students), background, culture, ethnicity, fluency, and bilingualism to help us to visualize and analyze the impact of previous variables on the student's academic performance (MYERS, 2014).

The procedure (steps) of data collection and analysis will be as the following:

1) Define your samples: select your student's sample (40) from an international university to have different English language levels and also the same for faculty (10) involved.
2) Divide your selected 40 student's into two classrooms: divide the students sample into two equal-sized samples (20 students) and assign every sample into different classroom settings where one classroom is taught in bilingual settings and the other in monolingual settings (both high/low English level students should be divided randomly into the two classrooms to investigate language impact as well).
3) Instruct faculty members to teach the students in the two studied classes following the required settings in that class [class (A) in bilingual and class (B) in mono-ligula settings].
4) Use Table 1 questions (survey/interview) to analyze the student performance throughout the complete semester for comparison purposes.
5) Distribute two-constructed surveys among students and faculty staff (two different surveys should be made from Table 1 questions) to collect data quantitatively.
6) Interview few involved faculty members to ask specific questions (from Table 1) and/or about their perception about the problem and if they believe in it or not; to qualitatively assess and investigate the problem.
7) Report the latest scores and/or GPA results of studied students (on average) indicating the student name (as a symbol) and his/her English level and latest performance (also check for teaching quality of faculty staff).
8) Compare the student's performance with his last semester performance and other peers.
9) Compare and contrast the student's performance in the two controlled classrooms.
10) Check the accuracy of the results before concluding.
11) Finally, the two surveys' results along with the interviews' results should be combined and studied together to conclude.
12) Results should be presented in a report to the university administration within 6 months for the completion of the study.

5. Pre-Analysis And Limitations

The results of this study will provide data that will either support or disprove the original hypothesis that international students who are taught in bilingual instructions and who have good English proficiency, also good English from faculty, will be more successful, academically, than those international students who are taught in English-language only (monolingual) and have poor English proficiency. Study analysis will also involve the impact of faculty staff English proficiency on the student success, which should be taken into consideration and should be treated as a variable and/or a constant (if the same faculty member is teaching) from class to another; otherwise, obtained results will not be credible. There will be also informal observations on the influence of student's background, culture, gender, ethnicity, and the native language on the student success rate (academic performance) towards the completion of each semester. Faculty staff will be informally interviewed and/or questioned to have additional research details regarding their thoughts about the major factors that will influence student performance (Mills, G. E., & Gay, 2016).

Results may not be generalized because the data will only consider international students from one university (in two classes only and with different English proficiency and/or educational settings and instructions), so studied students/faculty staff will have almost the same background, culture, and ethnicity. Also, the selected sample size of 40 students (20 per class) and 10 faculty staff are not that large numbers to allow us to have generalizable results. The results will also include anonymous evaluations of the teaching quality of faculty staff in the studied classrooms to determine the existing relationship between teaching quality and student's success.

When evaluating the student performance, the important factors that will be considered are teaching quality, communication, and understanding which are associated with English proficiency, and classroom settings (monolingual or bilingual). The results will be analyzed to identify the relationship between (English proficiency and bilingual settings) and (student's academic success). It is most likely that high levels of English proficiency (for both faculty and students) and bilingual settings will result in more successful students. Our findings then will be sent to university administrators and educational leaders to be considered for a better study experience. Future works should be conducted by other international universities to include the diversity factor and its impact on student's success.

Moreover, for future studies, the research problem should be carefully studied through identifying the influence of the following variables: campus diversity, student's background, culture, gender and ethnicity, university primary language of instruction, student's native language, faculty native language, classroom educational settings (monolingual/bilingual), procedure of student's evaluation, student's program of study, and student's communication and language skills.

6. Hypothetical Results And Discussions

Results of the proposed research are presented in Table 2. The shown data is for international university students assigned in two different class settings (bilingual vs. monolingual instructions) for the year 2017 (Spring semester). The two studied classes have a sample size of 20 students who have different English proficiency, communication and understanding skills. English proficiency level of the students has been measured through various evaluation tests where communication and understanding level has been measured through a questionnaire survey consist questions about the ability to understand faculty staff teaching style and/or method in either bilingual or monolingual instructions.

Teaching quality of faculty members has been evaluated from a questionnaire survey distributed to the students; however, student's performance was determined from the student performance in various exams and tests taken throughout the whole semesters. The collected data (scores) in Table 2 is only for international students from an international university (non-English institution) and the obtained scores are scaled from 0 to 10 where 0 indicates the lowest and 10 the highest. The data involved both bilingual and monolingual settings as well as English proficiency impact on the student's academic performance in a one single semester.

Every studied class has been divided into two groups of students (10 each) based on their language proficiency (low and high), and then their scores are presented independently to have more accurate results. The purpose of the results (Table 2) is to critically identify and figure out the relationship between (English proficiency and bilingual settings) and (student's academic success) in international (non-English) universities.

Students in Class A showed higher performance than their peers in Class B due to the bilingual instructions. The impact of English proficiency was prominent and correlated with high performance. The maximum and minimum performance levels were for students in (Class A with high English skills) and in (Class B with low English skills), respectively.

Table 2. Hypothetically measured English proficiency, bilingual settings and other parameters levels and their impact on the student performance in two different classes (Semester: Spring 2017)

Parameter	International students				Notes
Class	A		B		Two classes with similar
Sample size (students)	20		20		student background/culture.
Bilingual instructions	Yes		No		Bilingual: English & Native. Monolingual: English only.
English proficiency*	3.2	8.6	2.5	7.8	Proficiency of students.
Teaching quality*	7.4	7.4	7.4	7.4	Quality of faculty staff.
Communication and understanding*	5.2	9.3	3.1	5.8	Understanding of students.
Performance*	4.6	8.8	3.2	6.5	Performance of students.

*Scores are out of 10 and are associated with studied students (0 = lowest; 10 = highest); except that teaching quality is related to the ability of faculty staff to teach and convey curriculum info to students. Results were obtained from either observations, survey questions and/or evaluations.

7. Conclusions

We have hypothetically studied the impact of bilingual instructions and poor English proficiency of student/faculty on the student academic performance and the faculty's teaching quality in international universities. A literature review data from related research topics such as Faculty's teaching quality, communication and understanding, student academic performance and monolingual vs. bilingual instructions were utilized to address our problem. The selected framework involved mixed-method data gathering with commonly selected variables. The study sample size included 40 students and 10 faculty staff to gather data from both parties. Our research hypothesis is "Are international students who are taught in bilingual instructions and with good English proficiency more successful than English-only (monolingual) classes with poor English proficiency students?". Instruments involved both tests and surveys for data collections while analysis was carried out through a scaled score system (0 to 10). Analyzed results hypothetically determined that the performance of international students was much better in bilingual-instruction classes and for students with good English proficiency.

Acknowledgements

References

Aina, J. K., & Olanipekun, S. S. (2013). Effect of English language on academic performance in Physics and Computer Science among College of Education students. American International Journal of Research in Humanities, Arts and Social Sciences, 4(2), 114–117.

Airey, J., & Linder, C. (2006). Language and the experience of learning university physics in Sweden. European Journal of Physics, 27(3), 553.

Al-Khawaldeh, N., Bani-Khair, B., & Al-Edwan, Y. (2016). The Impact of Poor English Language Proficiency on Professional Development of Professors at Jordanian Universities. Arab World English Journal. https://doi.org/10.24093/awej/vol7no3.10

Carroll, J. (2012). Teaching international students: Strategies for enhancing students' learning. Educational Development Consultant: Routledge.

Coleman, J. A. (2006). English-medium teaching in European higher education. Language Teaching. https://doi.org/10.1017/S026144480600320X

Doiz, A., Lasagabaster, D., & Sierra, J. M. (2011). Internationalisation, multilingualism and English-medium instruction. World Englishes. https://doi.org/10.1111/j.1467-971X.2011.01718.x

Doiz, A., Lasagabaster, D., & Sierra, J. M. (2014). [Book Review] English-Medium Instruction at Universities: Global Challenges. Ibérica. https://doi.org/10.1093/elt/cct045

Fabricius, A. (2013). English-medium instruction at universities: Global challenges Aintzane Doiz, David Lasagabaster, and Juan Manuel Sierra (Eds). Bristol, England: Multilingual matters, 2013. pp. xxii + 221. TESOL Quarterly. https://doi.org/10.1002/tesq.144

Hu, G., & Lei, J. (2014). English-medium instruction in Chinese higher education: a case study. Higher Education, 67(5), 551–567.

Martirosyan, Nara M.; Hwang, Eunjin; Wanjohi, R. (2015). Impact of English Proficiency and Academic Performance of International Students. Journal of International Students. https://doi.org/10.2307/3586734

Mills, G. E., & Gay, L. R. (2016). Educational research: Competencies for analysis and applications. Upper Saddle Ridge, NJ: Pearson.

MYERS, A. (2014). Students learning English benefit more in two-language instructional programs than English immersion. Retrieved from https://news.stanford.edu/news/2014/march/teaching-english-language-032514.html

Nunan, D. (2003). The impact of English as a global language on educational policies and practices in the Asia-Pacific Region. TESOL Quarterly, 37(4), 589–613.