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Bilingual Education and Gender Difference Effect on English Achievement of Elementary School Students in Indonesia

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Abstract: This study attempted to investigate further issues dealing with the effect of bilingual education and gender difference on students' English achievement especially at elementary school students. The data were collected from mid-semester test and final test of a hundred and ten students of six grade at Islamic elementary school of Al Azhar 21 Pontianak. They were divided into two big categories. Half of them belong to bilingual class, while the others were from regular class. In terms of gender, they consisted of forty nine females and sixty four males. As the purpose of the study was to probe the effect of bilingual education and gender difference on English achievement, the results indicated that both bilingual education and gender difference do not contribute significantly on English achievements. In other words, bilinguals or females do not attain English better than monolinguals or males and vice versa. As such, the study advocated to avoid the dichotomy of bilingual class and non-bilingual class at school, since they carried more obstacles and challenges in the classroom instruction.

Keywords: bilingual education; english achievement; gender; monolinguals

Abstrak: Penelitian ini mencoba untuk menyelidiki lebih lanjut terkait isu-isu yang berhubungan dengan dampak pendidikan bilingual dan perbedaan gender pada prestasi bahasa Inggris siswa terutama di sekolah dasar. Data dikumpulkan melalui ujian tengah semester dan ujian akhir semester dari seratus sepuluh siswa kelas enam di sekolah dasar Islam Al Azhar 21 Pontianak. Mereka dibagi menjadi dua kategori besar. Setengah dari mereka termasuk dalam kelas bilingual, sedangkan yang lain dari kelas reguler. Dalam hal jenis kelamin, mereka terdiri dari empat puluh sembilan siswi perempuan dan enam puluh empat siswa laki-laki. Sebagaimana tujuan dari penelitian ini adalah untuk menyelidiki dampak pendidikan bilingual dan perbedaan gender pada prestasi bahasa Inggris siswa, maka hasilnya menunjukkan bahwa baik pendidikan bilingual maupun perbedaan gender tidak memberikan kontribusi yang signifikan terhadap prestasi bahasa Inggris siswa. Dengan kata lain, siswa bilingual atau siswi perempuan tidak memiliki pencapaian bahasa Inggris lebih baik daripada siswa di kelas reguler atau siswa laki-laki, dan begitu juga sebaliknya.

Kata kunci: bilingual education; english achievement; gender; monolinguals

INTRODUCTION

The trends of bilingual education in Indonesia have been increasing over decades despite the downfall of Pioneer International Standard Schools (RSBI) in 2013 through the decree of Indonesian constitutional court (MK). The phenomenon undeniably emerged due to the claims revealing the advantages of bilingual education in a number of studies. Dewi et al. (2021) rolled out three contributions of bilingual education were on the aspects of cognitive, socio-emotional, and academic and career development. Besides, bilingual students, according to Cenoz (2013) developed a wider range of learning strategies that assisted them to learn the third language.

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Ammade et al. (2023) as well asserted that bilingual was regarded as one of the key strategies for fostering both the instructors' and the students' communication ability in the classroom.

Bilingual education, however, does not only come up with advantages, but also disadvantages. Pioneer International Standard Schools (RSBI) were clear examples of failed establishment of bilingual education in Indonesia. Being started officially in 2004, gaining its popularity within 6-8 years ahead, yet must return to their original status as regular schools in January 2013 (Fitriati, 2015). Unprepared teaching staff who deliver the content subject in English and the status of Indonesian language which still constitutes foreign language (EFL) were among underlying reasons behind its downfall (Fatmawati, 2011; Perkasa, 2011; Hapsari, 2012, Jayanti & Anton, 2019). Furthermore, Jayanti (2019) listed several challenges and obstacles encountered by schools in the establishment of bilingual education; they are (1) bilingual education discriminated the low from the high (2) bilingual education were only enjoyed by particular circles, mostly students from middle and upper-income families (3) it appeared discrimination among bilingual students and regular students in terms of school facilities and infrastructures. (4) Social gap and social jealousy emerged among students and parents due to the implementation of bilingual program and (5) limited numbers of bilingual teachers who have sufficient English proficiency to teach in bilingual classroom.

Regarding with the effect of bilingual education on English achievement, numerous studies have been carried out as well to investigate the issue and in general the findings fall into two big categories. First, those stated that students taking part in bilingual education outperformed the monolingual students. Secondly, those revealing that there was no significant difference in English achievement between the bilingual students and the monolingual counterparts. Keshavarz and Astaneh (2004) were among many researchers who belonged to the former category. Involving 30 Turkish-Persian bilinguals, 30 Armenian-Persian bilinguals and 30 Persian monolinguals as the subjects, they drew a conclusion that native speakers of Turkish and Armenian performed better in English vocabulary test than the Persian monolingual learners of English. Sefedini (2018) was also in a favor with the study, she also maintained that bilingual students showed better results than the monolinguals in terms of communication, learning strategies, time management and self-confidence. Another study by Safont (2005) focusing on the acquisition of pragmatic competence in English also explicitly stated that bilingual learners outperformed the monolingual learners in English.

Yet, some other studies appeared on the surface to go against those researches. They simultaneously represented the latter category arguing that there was no significantly different effect of bilingual education on English achievement. Schoonen et al. (2002) reported no significant differences found in term of proficiency in written English among immigrants who were bilingual in their L1 and Dutch (L2) and Dutch L1 learners of English. Furthermore Dewi (2007) discovered the same pattern, namely there was no significant difference between bilinguals and monolinguals dealing with their English test results on national examination test and TOEFL test. In addition, the research done by Karjo (2009) aiming to compare bilinguals and monolinguals in the form of abilities to identify ungrammatical sentences in English also contended that the mean difference between the two groups were not statistically significant with sig value .316, which is greater than 0.05. In sum, these studies concurred in the findings that bilingual education does not provide significant impact on English achievement.

Along with bilingual education issues, gender difference has also emerged with more conflicting research findings in regard with its effect on English achievement. It commonly turned up three un-uniform results over this issue. To begin with, gender was initially linked up with English achievement in a positive way and considered as predictor for academic achievement in English (Kasssawa & Attatke, 2017**,** Olagbaju, 2020**).** This view then assumed that female students attained more successful English achievement than males did (Thomas et al. 2012, Abdullahi & Bichi, 2015, Becirovic, 2017). Furthermore, still engage with gender as predictor for English achievement, contrary findings issued and seemed to rectify the previous view. Such studies were carried out by Hasan & Khan 2015, Musa et al. 2016, Kasssawa & Attatke, 2017

with the conclusion that male students outperformed the female counterparts in English achievement.

The final view is those assuming that gender difference did not contribute significantly on English achievement. In other word, female students did not have better academic achievements in English compared to males ones or vice versa. Among researchers who claimed so were Attah and Itta (2017), in their study, the collected and computed data using independent t-test demonstrated that gender had no significant influence on English achievement among senior secondary school students in Calabar Metropolis. Similarly, the study by Sadiq (2020) which involved 511 students at Baghdad University indicated the total mean scores of both males and females were 18.251 and 18.224 respectively, while the significant value was 0.317 which was greater than 0.05. Thus, it can comprehensibly be concluded that gender difference was not a predictor of English achievement. Lastly, recent research by Rianto (2021) also explained that reading ability and English proficiency were not affected by gender difference in EFL university students.

Derived from the research gaps and inconclusive findings of bilingual education and gender difference discussed before, the more research on those variables is indeed still worth conducting. In addition, the research seeking out the effect of bilingual education and gender difference on English achievement in Indonesia with specific focus on elementary school is tough to be explored. Then, it is for this purpose the present study is carried out. More specifically, the present study is intended to answer the following research questions:

1. Does bilingual education have significant effect on English achievement? In other word, do bilingual students accomplish better English achievement than the monolingual counterparts?
2. Does gender difference have significant effect on academic achievement in English? In other word, do females statistically attain better English achievement than males?
3. Do females or males from bilingual program score higher in English than females and males students in monolingual program?

METHOD

Ex-post facto is the research design in this study as it is a part of quantitative approach. The participants of the study were 110 students of grade six at elementary school Al Azhar 21 Pontianak. Of the total students chosen as the subject in this research, 55 students were selected from bilingual classes (Firdaus and Mawa) and the other 55 were chosen from regular classes (Khuldi and Naim). In terms of gender, they comprised 49 females and 61 males. The ages range from eleven to twelve years old. At school, those coming from regular classes were merely taught using Indonesian language either in English subject or other subjects. On the other hand, students of bilingual classes are instructed using English and Indonesian in all subjects.

In the data collection, both bilingual and monolingual students were administered two types of the test. The first test was dispensed in the middle of semester called mid-semester test, while the second one was distributed at the end of semester, commonly recognized as final test. In the middle test, students were required to do 35 questions within ninety minutes, more specifically, the questions measured two language skills namely reading, writing, and two language components comprising grammar and vocabulary. In terms of reading skill measurement, five questions were constructed in the form of multiple choices and the other five were made in the form of true or false questions. Similarly, on the aspects of grammar and vocabulary, the questions were multiple choices consisting ten items of grammar and ten items of vocabulary. Meanwhile to assess writing skill, students were presented with five lists of common words in English like names of animals, occupations, hobbies and afterward they were assigned to describe them in sentences.

For the final test, the test pattern was identical with the prior mid semester test, however the number of questions was added and became 40 items. The five-test-item incorporation was aimed

at measuring students speaking skill through open-ended questions. Thus the classification of the test consisted of ten questions measuring reading skill, ten questions dealing with vocabulary, ten questions assessing grammar, five questions investigating students writing skill and five questions seeking out students speaking performance.

The data which have been collected were then analyzed using independent-samples t-test in SPSS 24. The use of independent t-test was to compare the mean scores obtained from bilingual and males students compared to that from monolingual and females counterparts. In addition, independent t-test was also performed to investigate whether female students from bilingual class fetched higher English scores than males and female students from regular class, and if male students from bilingual class achieved better English scores than females and male students from regular class.

RESULT AND DISCUSSION

Findings

The findings of the study are presented in accordance with the research problems outlined in previous explanation. Since consisting three research questions dealt with this study, then the research answers to each question are described as follow:

Question 1: *Does bilingual education have significant effect on English achievement? In other word, does bilingual students perform better English achievement than the monolingual ones?*

The average scores comparison between bilinguals and monolinguals in terms of their English achievement can be seen in Table 1. The scores were taken from both bilingual and monolingual students' mid-term test and final test

Table 1. Descriptive statistics and t-values of Mid-test and Final test by Bilinguals and Monolinguals

	Program	N	Mean	Std. Dev	t.value	Sig.
Mid-Test	Bilingual	55	92.64	6.204	-.649	.519
	Monolingual	55	93.45	6.994		
Final Test	Bilingual	55	92.00	6.336	-.878	.382
	Monolingual	55	93.16	7.515		

As it is indicated in the Table 1 the mean scores for bilinguals were 92.64 on their mid-test and 92.00 on their final test, while the monolinguals mean scores were found to be 93.45 and 93.16 respectively for their mid-test and final test. It appeared a slight difference in which monolinguals outperformed the bilinguals. However, analysis on the significance of the difference between the two scores on their mid-test showed that the t-value was -.649 with significant value .519 > 0.05. Furthermore, the t-value from the mean scores difference of bilinguals and monolinguals on the final test was -.878 with significant value .382 > .05. it implied that bilingual education does not provide any significant effect on students' English achievement. In other words, bilinguals do not attain better English achievement than the monolingual ones, and vice versa.

Question 2: *Does gender difference have significant effect on academic achievement in English? In other word, do females statistically attain better English achievement than males?*

The statistical analysis computing the difference of mean scores between males and females students are presented in Table 2. As the table shows, a similar pattern emerged as in the previous

research question. The significant values of the mean differences between male and female students were .628 and .795 respectively from mid-test and final test. The two scores were indisputably greater than 0.05. Moreover, males only produced 92.77 and 92.42 mean scores for both mid-test and final test, whereas females obtained slightly higher scores namely 93.38 and 92.77. Thus, it can be inferred that gender does not contribute significantly on academic achievement in English. In other word, females students do not perform better in English than males, and vice versa.

Table 2. Descriptive statistics and t-values of Mid-test and Final test by Males and Females Students

	Gender	N	Mean	Std. Dev	t.value	Sig.
Mid-Test	Males	61	92.77	6.644	-.486	.628
	Females	49	93.38	6.582		
Final Test	Males	61	92.42	6.897	-.261	.795
	Females	49	92.77	7.065		

Question 3: *Do females or males from bilingual program score higher in English than female and male students in monolingual program?*

The answer for this research question was reflected through the two separated tables below. The Table 3 discussed the mean scores from male students of bilinguals compared to male and female students from monolingual class. On the contrary, the Table 4 highlighted the mean scores differences between females from bilingual class and females or males from monolingual counterparts.

Table 3. Descriptive statistics and t-values of Mid-test and Final test by Males Bilingual and Male and Females Monolingual

	Gender	N	Mean	Std. Dev	t.value	Sig.
Mid-Test	Males Bilingual	26	92.12	6.796	-.661	.511
	Males Monolingual	35	93.26	6.586		
Final Test	Males Bilingual	26	91.88	7.356	-.525	.601
	Males Monolingual	35	92.83	6.618		
Mid-Test	Males Bilingual	26	92.12	6.796	-.780	.439
	Females Monolingual	20	93.80	7.824		
Final Test	Males Bilingual	26	91.88	7.538	-.772	.444
	Females Monolingual	20	93.75	9.031		

The Table 3 unsurprisingly indicated that none of mean score differences was significant among the groups. It was confirmed by the four significant values in the table which lied on .511, .601, .439, and .444 respectively and those were statistically greater than .05. In details, male bilinguals score 92.12 and 91.88, male monolinguals attained 93.26 and 92.83 and female monolinguals fetched 93.80 and 93.75 in their mid-test and final test. Furthermore, the highest scores were found to be 93.80 of female monolingual in the mid-test, while the lowest score was 91.88 from males bilingual in the final test. In terms of t-values, the table revealed four results namely -.661 for males bilingual and males monolingual comparison in mid-test, -.525 for males bilingual and males monolingual comparison in final test, 780 for males bilingual and females monolingual comparison in mid-test and -.772 for males bilingual and males monolingual comparison in final test. In sum, despite having difference among the mean scores, yet the statistical analysis indicated that the difference was not statistically significant. In other word, it affirmed the previous statistical finding in Table 1 and Table 2 that gender difference and bilingual

education do not provide significant effect on English achievement among students of elementary school

Table 4. Descriptive statistics and t-values of Mid-test and Final test by Female Bilingual and Female and Males Monolingual

	Gender	N	Mean	Std. Dev	t.value	Sig.
Mid-Test	Females Bilingual	29	93.10	5.703	-.341	.736
	Females Monolingual	20	93.80	7.824		
Final Test	Females Bilingual	29	92.10	5.394	-.730	.471
	Females Monolingual	20	93.75	9.031		
Mid-Test	Females Bilingual	29	93.10	5.703	-.099	.922
	Males Monolingual	35	93.25	6.586		
Final Test	Females Bilingual	29	92.10	5.394	-.483	.831
	Males Monolingual	35	92.83	6.618		

The further confirmation that gender difference and bilingual education do not vary in students' English achievement can be verified through the Table 4. Of the four mean scores comparison investigated above, there were no any significant values which were found less than .05. For instance, the first comparison between females bilingual and females monolingual, the mean scores were 93.10 and 93.80 in their mid-test, with t-value -.341 and significant value .736 (>0.05). In addition, the comparison between females bilingual and females monolingual in the final test also produced the same result, no significant effect, with t-value -730 and significant value .471 (>.05). Furthermore, the second comparison, females bilingual and males monolingual, did not differ in significant way as well, since the t-values were .099 with significant value .922 (>.05) for the mid-test and .483 with significant value .831 (>.05) for the final test.

Discussion

The findings of the current study firmly explicate that neither bilingual education nor gender difference contributes significant effect to students' academic achievement in English at the level of elementary school. In other words, the variances of English scores in the mid-semester test and final test are not affected by bilingual program and gender difference. As such, the present study supports the findings of previous research claiming that bilingual education did not provide significant effect on English achievement (Schoonen et al. 2002; Dewi, 2007; Karjo 2009) and also reinforce the earlier studies declaring that gender was not a predictor for English achievement with females do not attain better English achievement than males and vice versa (Attah & Itta, 2017; Sadiq, 2020; Rianto, 2021).

On the contrary the present study contradicts the findings of Keshavarz & Astaneh 2004; Safont. 2005; Sefedini 2018, revealing that bilingual students outperformed the monolinguals in the aspects of vocabulary test, the acquisition of pragmatic competence, communication, learning strategies, time management and self-confidence. Meanwhile, in terms of gender difference, this study also refutes the researchers who maintained that females possessed inclination to perform better in English than males or vice versa (Thomas et al. 2012; Abdullahi & Bichi, 2015; Becirovic, 2017; Hasan & Khan 2015, Musa et al. 2016, Kasssawa & Attatke, 2017). Thus. It was suggested to avoid the dichotomy of bilingual class and non-bilingual class at school for the sake of equality among students. This is in line with Jayanti (2019) who listed several challenges and obstacles encountered by schools in the establishment of bilingual education, they are (1) bilingual education discriminated the low from the high (2) bilingual education are only enjoyed by certain circles, mostly students from middle and upper-income families (3) it appears discrimination among bilingual students and regular students in terms of school facilities and infrastructures. (4) social gap and social jealousy emerged among students and parents due to the

implementation of bilingual program and (5) limited numbers of bilingual teachers who have sufficient English proficiency to teach in bilingual classroom.

CONCLUSION AND SUGGESTIONS

Three conclusions were drawn in this study dealing with the effect of bilingual education and gender difference on students' English achievement. First, bilingual students did not outperform the monolingual ones and vice versa, in other word, bilingual education did not provide any significant effect on students' English achievement. Secondly, gender difference was not a predictor for English achievement in that females did not attain better English achievement than males and vice versa. This finding was similar to the prior one. Finally, female bilinguals did not score higher in English than female and male monolinguals, and male bilinguals did not either.

Findings of the present study provide suggestions to avoid the dichotomy of bilingual class and non-bilingual class at school, since they carry more obstacles and challenges in the classroom instruction. In addition, the integration of teaching method in language instruction must be able to accommodate gender difference both females and males to gain better improvement in the quality of teaching and learning process since they perform equally in this research. Furthermore, since this research only compared students from the same grades with limited number of subjects, then further research could be done in the future by involving a bigger number of participants from lower grades to upper grade.

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