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Bilingualism: Its influence on the reading comprehension of college students

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ABSTRACT

Reading plays a great role in the lives of people. It provides them access to the world of ideas and an instrument for obtaining knowledge in various subject disciplines. It is a needed tool that one must possess so that s/he will not be deprived of a wonderful medium of learning. However, numerous factors impede one from acquiring reading skills. One of the most controversial issues on these factors is the language problem, which in the Philippines has evolved into an issue of national importance. Questions on the reading problem or language problem arise and it has continued to be the subject of national debate. This study was conducted utilizing the use of two languages (English and Filipino) in order to determine their significant influence on the reading comprehension of college students. A true-experimental method of research was used and it revealed: a) language of instruction does not affect significantly the achievement in reading comprehension of the subjects, b) results of the pre-test and post-test of both experimental and control groups consistently showed that the English and Filipino instructed-experimental and control group performed well in their reading achievement.

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INTRODUCTION

The world is beset by myriad problems due to the tremendous explosion of knowledge and the advent of advanced technology. This necessitates one to possess the necessary skills needed in meeting these demands of time.

Processing an enormous amount of information requires repatterning of one's thoughts in the light of the current needs. Faster living necessitates faster learning and this requires one to be an efficient reader.

Among the benefits of living in a rapidly changing world is the ability and opportunity to comprehend and think for oneself. A person's full development is heavily reliant on his or her mastery of basic reading skills, particularly comprehension skills; in fact, people's lives depend on it. Their actions are determined by which beliefs they hold to be true and which claims they accept. The more carefully they evaluate a claim, the better they can distinguish between issues that are relevant to it and those that are not, and the more critical thinkers they become.

There are several ways for improving comprehension skills, and one of these is through reading. Reading provides everybody access to the world of ideas. It enables one to ponder the mysteries of the world and explore accumulated knowledge. It can also be one of the most profitable preoccupations of individuals to expand their horizons and to unlock their minds from various idiosyncrasies. One cannot deny the fact that reading becomes part of man's daily life. Villamin, et.al (1984) said, 80% of the things people do daily involve reading. Furthermore, one should consider and use it as a tool if s/he is likely to succeed in learning different disciplines. Reading skills are process skills, the foundation of learning which other skills are built upon. The study by Karimi (2016), shows that there is a positive relationship between students' reading comprehension proficiency and critical thinking skills.

Brown, as cited by Sari (2017), describes reading as the most essential skill in the educational context and can even be used to assess students' general language skills. However, numerous factors impede students from acquiring these reading skills. These include inadequate prior knowledge, poor study skills, and presence of learning disability, poor training and a lot more. Moreso, (Elleman & Oslud, 2019) describe reading comprehension as one of the most complex cognitive activities in which humans engage, making it difficult to teach, measure, and research. One of the most controversial issues on these factors is the language problem, which in the Philippines has evolved into an issue of national importance. Questions on reading problems or language problems arise and it has continued to be the subject of national debate. Language is not just a correlation of symbols; but it is a human personal- social invention (Goodman as cited by Amorado, 1998). It helps learners make sense of the world around them, serves as an essential tool for communication, and assists them in expressing their needs.

Language is complex and dynamic. It is complex for it involves lexemes, semantics, pragmatics, phonetics, phonology, and other grammatical markers. It is dynamic since it evolves through time. Acuna, et.al (1994) describe language not a mere tool for communication, it has political and economic implications.

Indeed, due to this complexity of language, bilingual education was felt to be a great force of ensuring significant educational change. Filipino and English would be used as separate media of instruction in a specified content area in school. The Department of Education Culture and Sports (DECS) promulgated the bilingual education policy, aiming to achieve competence in both Filipino and English in the national levels.

The national aspirations of producing citizens who are competent in Filipino would give self-worth, pride and symbol of one's national unity, while competence in English is crucial since it links people all over the world. It is used to communicate and transact business to an international level. It is undeniably a fact that English language has contributed a lot in the development of a certain country, like Philippines. It is the second language of the world and the first language of the international use. Language plays an important role in learning comprehension skills. Language is one part of the total knowledge that readers use to process information in the

text, there is a significant relationship between language and reading proficiency. Low proficiency in a second language may inhibit a reader from transferring his or her good reading skills to the L2 reading context or prevent him or her from full use of syntactic discourse in reading (Amorado, 1998). This notion was supported by Goodman (1978) when he said that reading is a problem in language processing, a psycholinguistic guessing game. The reader selects enough cues from the printed page that trigger his own appropriate language responses. In as much as English is oftentimes mentioned by several researchers as a barrier to learning, it is imperative that reading comprehension skills are developed along with English and Filipino language development. Indeed, this study was conducted to determine whether language influences the reading comprehension skills.

OBJECTIVES

The main objective of this study was to determine the influence of bilingualism on the reading comprehension of college students. Specifically, it sought to answer the following questions:

1. What is the level of comprehension of the control and experimental group in the pretest and posttest in Filipino and English versions when taken as a whole and classified according to the following sub-skills:
    1.1 recognizing the main idea
    1.2 noting details
    1.3 characterization
    1.4 predicting outcomes, making inferences and drawing conclusions
    1.5 sequencing
2. Are there significant differences in the levels of reading comprehension of the experimental and control group in the pretest and posttest both in Filipino and English versions when taken as a whole and classified according to the identified sub-skills.
3. Is there a significant difference in the level of reading comprehension of the control and experimental groups in the pretest and posttest in English and Filipino versions of the test?

Hypotheses

1. There are no significant differences in the levels of reading comprehension of the experimental and control groups in the pre-test and post-test both in Filipino and English versions when taken as a whole and classified according to the following sub-skills.
    1.1 recognizing the main idea
    1.2 noting details
    1.3 characterization
    1.4 predicting outcomes, making inferences and drawing conclusions
    1.5 sequencing
2. There is no significant difference in the level of reading comprehension of the control and experimental groups in the pre-test and post-test in English and Filipino versions of the test.

Theoretical framework

This study is based on the theory that language, particularly the ability to read is necessary in acquiring higher order skill (Guthrie as cited by Gonzales, 1999).

Reading is a linguistic process. It requires syntactic analysis in the text to grasp and comprehend the ideas presented. To achieve satisfaction and comprehension of the passage, word meanings must be merged into a chain of related ideas. However, many claim that there is a significant relationship between language and comprehension, which later become an issue of national importance. This fuels the birth of the bilingual policy of education, the use of both Filipino and English language.

Nevertheless, many researchers oftentimes mentioned that English is a "barrier" to learning. Thus, this study utilizing two languages were used to address the conflicting notions as to which language will provide better learning results. Two groups were formed, the experimental and the control group. The first group utilized Filipino and the latter utilized English as the medium of instruction. The languages were used to determine which of these two yielded greater influence in the reading comprehension of the subjects.

METHODS

Design

This study made use of experimental method utilizing the pre-test-post-test control group design as indicated below:

R Group A	O_1		O_2
R Group B	O_3	X	O_4

Subjects of the study

Sixty first year college students were the subject of this study. They were taken from 238 college students enrolled. Thirty students were assigned as the experimental group and another thirty students as control group. These groups were matched through their IQ, socio-economic status, age, and the grades in their English and Filipino subjects in their previous semester. Their IQ was determined through the use Otis-Lenon School Ability Test (OLSAT). The experimental group received Filipino as a medium of instruction as the treatment, while the control group utilized English as a medium of instruction.

Research instrument

A teacher-made reading comprehension test was used to determine the influence of Filipino language to the students' reading comprehension skills. Calderon (1993), defines teacher-made test as a test done by the teacher and administered to her/his students to determine the achievement of the latter in the subject they are taking for the purpose of marking and promotion. This kind of test proved its value in the understanding of concepts, vocabulary, information, computational ability, and other learning outcomes (Calmorin, 1994). The teacher-made comprehension test used was developed through consultation with the reading specialists, statisticians, literature experts and by reading related literature and studies using a Table of Specifications covering the comprehension sub skills.

Content and face validation was used to ensure its validity. The instrument yielded a mean of 3.96 which means highly valid. Using the Richard Kuderson's Formula$_{20}$ the instrument yielded an internal consistency of .81 in English and .83 in Filipino, which indicates high consistency.

Data collection

The control group received English as medium of instruction while the experimental group received Filipino as medium of instruction. *The administration of the pre-test:* The final draft of the teacher-made reading comprehension test both in English and Filipino was conducted to 60 subjects of the study, thirty (30) from the experimental group and the other thirty (30) from the control group. The control group took the test in the afternoon, and the experimental group took the test in the morning on the same day. *Application of the treatment:* After the pre-test was administered to both groups, the researcher applied the treatment to the experimental group, which was Filipino, the medium used of instruction. The purpose of the treatment was to determine whether the use of Filipino influences the reading performance of the group. While the experimental group was utilizing Filipino language as medium of instruction, the control group was using the English language. *The administration of the*

post-test: After a period of time, the researcher administered the posttest, results were using the pre-test and post-test results of the experimental and control groups in English and Filipino.

RESULTS AND DISCUSSIONS

Table 1. Reading comprehension skills of the control group in the Filipino version of pre-test

Reading Comprehension Skills	No. of Items	Mean	Interpretation
1. recognizing the main idea	4	1.63	Average
2. noting details	16	7.67	Average
3. characterization	8	3.00	Low
4. predicting outcomes, making inferences, and drawing conclusions	12	5.10	Average
5. Sequencing	20	9.43	Average
As a Whole	60	26.28	Average

Table 1 shows the Level of reading comprehension skills of the control group in the Filipino version of pre-test. It can be gleaned from the data that the group got an *average* mean in recognizing the main idea, which is 1.63. This was followed by noting details, (M = 7.67); predicting outcomes, making inferences and drawing conclusions, (M = 5.10); and sequencing, (M = 9.43) respectively. Characterization got a *low* mean. When taken as a whole, the group got an *average* mean of 26.83.

Table 2. Reading comprehension skills of the control group in the English version of pre-test

Reading Comprehension Skills	No. of Items	Mean	Interpretation
1. recognizing the main idea	4	1.57	Average
2. noting details	16	7.47	Average
3. characterization	8	3.20	Low
4. predicting outcomes, making inferences, and drawing conclusions	12	5.73	Average
5. Sequencing	20	9.20	Average
As a Whole	60	27.17	Average

Table 2 shows the level of reading comprehension skills of the control group in the English version of pre-test. The data in the table show that the control group got an *average* mean of 27.17 in the reading comprehension when taken as a whole. When classified according to sub skills, recognizing the main idea got a mean of 1.57; noting details, 7.47; predicting outcomes, making inferences and drawing conclusions, 5.73; and sequencing, 9.20;

which were all categorized as *average.* Characterization got a mean of 3.20, which was categorized as *low.* This result implies that the control group performed well in English version of the test in the same manner as they performed in Filipino version.

Table 3. Reading comprehension skills of the experimental group in the Filipino version of pre-test

Reading Comprehension Skills	No. of Items	Mean	Interpretation
1. recognizing the main idea	4	1.67	Average
2. noting details	16	7.53	Average
3. characterization	8	3.07	Low
4. predicting outcomes, making inferences, and drawing conclusions	12	5.00	Average
5. Sequencing	20	9.27	Average
As a Whole	60	26.53	Average

Table 3 shows that four sub-skills got an *average* mean, these were recognizing the main idea, which of 1.67; this was followed by noting details, (M = 7.53); predicting outcomes, making inferences and drawing conclusions, (m = 5.00); and sequencing, (m = 9.27) respectively. Characterization got a *low* mean of 3.07. When taken as a whole, the group got an *average* mean of 26.53.

Table 4. Reading comprehension skills of the experimental group in the English version of pre-test

Reading Comprehension Skills	No. of Items	Mean	Interpretation
1. recognizing the main idea	4	1.53	Average
2. noting details	16	7.23	Average
3. characterization	8	3.23	Low
4. predicting outcomes, making inferences, and drawing conclusions	12	5.07	Average
5. Sequencing	20	9.13	Average
As a Whole	60	26.53	Average

As reflected in table 4, the experimental group got an *average* mean of 26.53 in reading comprehension, when taken as a whole. When classified according to sub-skills recognizing the main idea got a mean of 1.53; noting details, 7.23 predicting outcomes, making inferences and drawing conclusions, 5.07; and sequencing, 9.13; which were all categorized as *average.* Characterization obtained a mean of 3.20, which was categorized as *low.* Based on the results, it can be inferred that the experimental group did well in the English version as they did in Filipino, except, for characterization in which the group got a *low* mean both in English and Filipino.

Table 5. Reading comprehension skills of the control group in the Filipino version of post-test

Reading Comprehension Skills	No. of Items	Mean	Interpretation
1. recognizing the main idea	4	2.37	Average
2. noting details	16	10.00	High
3. characterization	8	5.77	High
4. predicting outcomes, making inferences, and drawing conclusions	12	8.60	High
5. Sequencing	20	13.27	High
As a Whole	60	40.00	High

It is evident in this table that when the control group was given a post-test, their level of reading comprehension when taken as a whole was *high*. When classified according to sub-skills, recognizing the main idea, which was classified as *average.*

Table 6. Reading comprehension skills of the control group in the English version of post-test

Reading Comprehension Skills	No. of Items	Mean	Interpretation
1. recognizing the main idea	4	2.40	Average
2. noting details	16	10.43	High
3. characterization	8	5.90	High
4. predicting outcomes, making inferences, and drawing conclusions	12	8.20	High
5. Sequencing	20	13.13	High
As a Whole	60	40.07	High

As shown in table 6, the results of the post-test of the control group consistently showed that in English version, subjects performed well in the same manner as they performed in Filipino. This is so, because of the *high* mean that they obtained in the reading comprehension when taken as a whole and when classified according to sub-skills, in the overall post-test. Among the sub-skills, only recognizing the main idea got an *average* mean. The data

show an increase in the mean scores of the students in the control group, which may be attributed to their learning gained from the lessons during the experiment.

Table 7. Reading comprehension skills of the experimental group in the Filipino version of post-test

Reading Comprehension Skills	No. of Items	Mean	Interpretation
1. recognizing the main idea	4	2.80	High
2. noting details	16	10.47	High
3. characterization	8	5.90	High
4. predicting outcomes, making inferences, and drawing conclusions	12	8.80	High
5. Sequencing	20	13.23	High
As a Whole	60	41.20	High

The mean obtained by the experimental group in their post-test the Filipino version is 41.20, which is high. When classified according to sub-skills, the group obtained a mean of 2.80 for recognizing the main idea; 10.47 for noting details; 5.90 for characterization; 8.80 for predicting outcomes, making inferences, and drawing conclusions; and 13.23 for sequencing. This means obtained by the group show *high* level of performance. The performance of this group shows that these students were given lessons in Filipino; thus, they performed reading highly in Filipino. This seems to show that they have mastered the Filipino language which may be due to training and received not only in their schooling but also benefited from the treatment. This situation demonstrates that they have created the sense -it cells in their brains because the language has been practiced and integrated in the different skills they have learned.

Table 8. Reading comprehension skills of the experimental group in the English version of post-test

Reading Comprehension Skills	No. of Items	Mean	Interpretation
1. recognizing the main idea	4	2.67	High
2. noting details	16	10.10	High
3. characterization	8	6.03	High
4. predicting outcomes, making inferences, and drawing conclusions	12	8.33	High
5. Sequencing	20	13.10	High

As a Whole	60	40.23	High

In English version, the group also got a high mean in reading comprehension when taken as a whole and when classified according to sub-skills. Sequencing got the highest mean, which of 13.10. This was followed by noting details, (M=10.10); predicting outcomes, making inferences and drawing conclusions, (M=8.30); characterization 6.03; and recognizing the main idea, (M = 2.67) respectively. As revealed in the results the group performed well both in English and in Filipino.

Table 9. Difference between the means of the experimental and control groups in the Filipino pretest when taken as a whole

Groups	N	Mean	sd	Sex	Mean Difference	t-value
Experimental	30	26.53	3.04	.3187	.30	.33
Control	30	26.83	3.79	.4953		n.s
Df	58					

The mean obtained by the experimental group was 26.53 and the control group obtained a mean of 26.83 with a mean difference of .30. However, the mean difference of 1.17 is *not significant.* Therefore, it can be inferred that the pretest results of the experimental and control groups in Filipino when taken as a whole did not differ significantly. Both groups have almost the same level of reading comprehension in English and in Filipino.

Table 10. Difference between the means of the experimental and control groups in the Filipino pretest when classified according to comprehension skills

Groups	N	Mean	Sd	Sex	Mean Difference	t-value
		Recognizing the Main Idea				
Experimental	30	1.67	.55	0.010	.04	0.262
Control	30	1.63	.61	0.013		n.s
df	58					
		Noting Details				
Experimental	30	7.53	1.98	0.135	.14	0.26
Control	30	7.67	1.97	0.134		n.s
df	58					
		Characterization				
Experimental	30	3.07			.07	.32
Control	30	3.00				n.s
df	58					
		Predicting Outcomes, making Inferences				
Experimental	30	5.00			0.10	.33
Control	30	5.10				n.s
df	58					
		Sequencing				
Experimental	30	9.27	1.62	0.090	0.16	.33

Control	30	9.43	2.05	0.145		n.s
df	58					

In recognizing the main idea, the experimental group obtained a mean of 1.67 and the control group obtained a mean of 1.63. However, their mean difference is not significant in the obtained t-value of .33 < 2.002, at .05 level of significance. In noting details, the experimental group got a mean of 7.53 and the control group got a mean of 7.67. A mean difference of .14 is *not significant* using the t-value of .26. In characterization, the experimental group obtained a mean of 3.07 and the control group obtained a mean of 3.00 with a mean difference of .07. However, this mean difference is *not significant* as revealed in the obtained t-value of .32. For predicting outcomes, making inferences and drawing conclusions the experimental group got a mean of 5.00 and the control group obtained a mean difference of 0.10. This mean difference still shows no significant difference between the mean of the experimental and control groups. For sequencing, the obtained mean of the experimental group is 9.27 and the control group is 9.43. However, the mean difference of 0.16 is *not significant* as revealed in the obtained t - value of .33. The results consistency showed no significant differences between the pretest of the experimental and control groups in English and in Filipino. Results showed that there are no significant differences in the levels of reading comprehension of the experimental and control groups in the pre-test in Filipino version when taken as a whole, and classified according to the following sub-skills: recognizing the main idea, noting details, characterization, predicting outcomes, making inferences, drawing conclusions and sequencing.

Table 11. Difference between the means of the experimental and control groups in the English pretest when taken as a whole

Groups	N	Mean	Sd	Sex	Mean Difference	t-value
Experimental	30	26.20	4.11	0.58	0.97	.95
Control	30	27.17	3.61	0.45		n.s
Df	58					

Table 11, compares the pre-test mean of experimental group (M=26.20; SD 4.11) and control group M=27.17; SD 3.61 in English. The mean difference was .97, *not significant.* Therefore it can be inferred that the pre-test results of the experimental and control groups in English when taken as a whole did not significantly differ. Both groups have the same level of reading comprehension in English and in Filipino.

Table 12. Difference between the means of the experimental and control groups in the English pretest when classified according to comprehension skills

Groups	N	Mean	Sd	Sex	Mean Difference	t-value
		Recognizing the Main Idea				
Experimental	30	1.53	.68	.016	.04	.223
Control	30	1.57	.68	.016		n.s
df	58					
		Noting Details				
Experimental	30	7.23	2.30	0.135	0.24	0.45
Control	30	7.47	1.74	0.134		n.s
df	58					
		Characterization				

Experimental	30	3.23	1.04	.037	0.07	.118
Control	30	3.20	.89	.027		n.s
df	58					
		Predicting Outcomes, making Inferences….				
Experimental	30	5.07	1.14	.045	0.66	2.12
Control	30	5.73	1.23	.052		n.s
df	58					
		Sequencing				
Experimental	30	9.13	1.83	.115	0.07	.145
Control	30	9.20	1.83	.115		n.s
df	58					

In recognizing the main idea, the experimental group obtained a mean of 1.53 and the control group obtained a mean of 1.57. The mean difference is *not significant* as reflected in the obtained t-value of .145 < 2.002, at .05 level of significance. In noting details, the experimental group got a mean of 7.23 and the control group got a mean of 7.47 with a mean difference of .24. Still, the mean difference is not significant as reflected in the t-value of .45. In characterization, the experimental group obtained a mean of 3.23 and the control group obtained a mean 3.23 with a mean difference of .03. However, this mean difference is not significant as revealed in the obtained t-value of .118. For predicting outcomes, making inferences and drawing conclusions the experimental group got a mean of 5.07 and the control group obtained a mean 5.73 with a mean difference of 0.66. This mean difference shows significant difference between the mean of the experimental and control groups. The control group obtained a mean, which was slightly higher than the mean obtained by the experimental group. Probably the control group made use of prior knowledge about the content area to be tested since readers with much prior knowledge regarding a particular topic, will likely be able to comprehend it. For sequencing, the obtained mean of the experimental group is 9.13 and the Control group is 9.20. However, the mean difference of 0.07 is *not significant* as revealed in the obtained t- value of .145 which is likewise not significant. The results consistently showed *no significant differences* between the pre-test of the experimental and control groups in English and in Filipino. The results show that there are no significant differences in the levels of reading comprehension of the experimental and control groups in the pre-test in Filipino version when taken as a whole, and classified according to the following sub-skills: recognizing the main idea, noting details, characterization, predicting outcomes, making inferences, drawing conclusions and sequencing.

Table 13. Difference between the means of the experimental and control groups in the Filipino posttest when taken as a whole

Groups	N	Mean	Sd	Sex	Mean Difference	t-value
Experimental	30	41.20	5.20	0.93	1.2	.86
Control	30	40.00	5.46	1.03		n.s
Df	58					

The mean obtained by the experimental group was 41.20 and the control group obtained a mean of 40.00 with a mean difference of 1.2. When this mean difference was tested, the obtained t-value of .86 shows no significance difference between the post-test of the experimental and control groups in Filipino. This only shows that the medium of instruction did not affect the reading comprehension of the both groups.

Table 14. Difference between the means of the experimental and control groups in the Filipino posttest when classified according to comprehension skills

Groups	N	Mean	Sd	Sex	Mean Difference	t-value
		Recognizing the Main Idea				
Experimental	30	2.80	.76	0.02	0.43	2.285
Control	30	2.37	.67	0.015		sig.
Df	58					
		Noting Details				
Experimental	30	10.47	2.37	0.193	0.47	.77
Control	30	10.00	2.26	0.176		n.s
Df	58					
		Characterization				
Experimental	30	5.90	.76	0.020	0.13	.61
Control	30	5.77	.86	0.026		n.s
Df	58					
		Predicting Outcomes, making Inferences….				
Experimental	30	8.80	1.47	0.074	0.20	.512
Control	30	8.60	1.50	0.077		n.s
Df	58					
		Sequencing				
Experimental	30	13.23	2.61	0.23	0.04	.053
Control	30	13.27	3.04	0.32		n.s
Df	58					

In recognizing the main idea, the experimental group obtained a mean of 2.80 and the control group obtained a mean of 2.37 with a mean difference of .43. However, when this mean difference was tested, it shows *significant difference* as reflected in the t-value 2.285 >2.002, at .05 level of significance. In noting details, the experimental group got a mean of 10.47 and the control group got a mean of 10.00 with a mean difference of .47. This mean difference is *not significant* as reflected in the t-value of .77, which is likewise not significant. In characterization, the experimental group obtained a mean of 5.90 and the control group obtained a mean of 5.77 with a mean difference of 0. 13. However, this mean difference is *not significant* as revealed in the obtained t-value of .61. For predicting outcomes, making inferences and drawing conclusions the experimental group got a mean of 8.80 and the control group obtained a mean of 8.60 with a mean difference of 0.20. This mean difference still shows no significant difference between the mean of the experimental and control groups. For sequencing, the obtained mean of the Experimental Group is 13.23 and the Control group is 13.27. However, the mean difference of 0.04 is *not significant* as revealed in the obtained t=value of .053. Based on the result, among the sub-skills only recognizing the main idea has a significant difference in the post-test of experimental and control groups. The experimental group performed better in this skill than the Control group. However, when taken as a whole and when classified according to other sub-skills, results showed *no significant difference.* Results showed that there are no significant differences in the levels of reading comprehension of the experimental and control groups in the post-test in Filipino version when taken as a whole, and classified according to the following sub-skills: recognizing the main idea, noting details, characterization, predicting outcomes, making inferences, drawing conclusions, and sequencing.

Table 15. Difference between the means of the experimental and control groups in the English posttest when taken as a whole

Groups	N	Mean	Sd	Sex	Mean Difference	t-value
Experimental	30	40.23	5.28	0.96	0.16	.11
Control	30	40.07	5.75	1.14		n.s
Df	58					

Table 15 shows the comparison of the means of the experimental group (M= 40.23, SD= 5.28) and the control group (M=40.07; SD 5.75) in English post-test when taken as a whole. The mean difference of 0.16, is *not significant.*

Table 16. Difference between the means of the experimental and control groups in the English posttest when classified according to comprehension skills

Groups	N	Mean	Sd	Sex	Mean Difference	t-value
		Recognizing the Main Idea				
Experimental	30	2.67	.66	0.015	0.27	1.54
Control	30	2.40	.67	0.015		sig.
Df	58					
		Noting Details				
Experimental	30	10.10	2.59	0.23	0.33	.513
Control	30	10.43	2.30	0.18		n.s
Df	58					
		Characterization				
Experimental	30	6.03	.93	0.03	0.13	.515
Control	30	5.90	.99	0.034		n.s
Df	58					
		Predicting Outcomes, making Inferences….				
Experimental	30	8.33	1.32	0.60	0.13	.326
Control	30	8.20	1.69	0.98		n.s
Df	58					
		Sequencing				
Experimental	30	13.10	2.55	0.224	0.03	.042
Control	30	13.13	3.04	0.296		n.s
Df	58					

Table 16, shows the summary of the difference between the mean of experimental and control groups. It can be gleaned from the data that the post-test of experimental and control groups does *not significantly differ.* This is so, because the computed t-value in all the sub skills is likewise *not significant.* Results indicated that there are no significant differences in the levels of reading comprehension of the experimental and control groups in the post-test in Filipino version when taken as a whole, and classified according to the following subs kills: recognizing the main idea, noting details, characterization, predicting outcomes, making inferences, drawing conclusions and sequencing. This study is reinforced by findings made by the studies of Aguisanda (1995), Bernardino (1998, and

Montaño (199) which revealed that no significant differences were noted in the language of instruction used in the teaching of Social Studies, Science and Mathematics. That familiarity of the language of texts, prior knowledge could be the factors in reading performance of students and that both languages – English and Filipino can be used as media of instruction.

Table 17. Computed *t-value* of the control group pretest and posttest in English version of the test

Statistic		∑D	∑D²	t-value
N	30	387	5531	16.39 sig.
df	29			

Table 17 shows that there is a significant difference in the level of comprehension of the control group pre-test and post-test on the English version of the test as revealed in the computed t-value of 146.39 > 1.672, at 0.05 level of significance.

Table 18. Computed *t-value* of the control group pretest and posttest in Filipino version of the test

Statistic		∑D	∑D²	t-value
N	30	395	5789	16.01 sig.
df	29			

Table 18 shows that there is a significant difference, in the reading comprehension of the control group in pre-test and post-test on the Filipino version of the test as indicated in the computed t-value of 16.01 which is greater than the tabular value of 1.672 at .05 level of significance. The control group have learned much from these reading skills given to them from the stories that they have read. Based on the result, the hypothesis entailing that there is no significant difference in the level of reading comprehension of the control group in pre-test and post-test on the Filipino version of the test, is *rejected.*

Table 19. Computed *t-value* of the control group pretest and posttest in English version of the test

Statistics		∑D	∑D²	t-value
N	30	421	6531	16.47 sig.
df	29			

There is a significant difference in the level of reading comprehension of the experimental group in pre-test and post-test on the Filipino version of the test. This is so, because the computed t-value of 16.47 is greater than the tabular value of 1.672 at .05 level of significance. Therefore, the hypothesis negating the significant difference in the level of reading comprehension of the experimental group in pre-test and post-test on the English version of the test, is *rejected.*

Table 20. Computed *t-value* of the experimental group pretest and posttest in English version of the test

Statistics		∑D	∑D²	t-value
N	30	440	6956	19.295
				sig.
df	29			

Table 20, shows that there is a significant difference, in the level of reading comprehension of experimental group in pre-test and post-test on the Filipino version of the test. This is revealed in the computed t-value of 19.295 which is greater than the tabular value of 1.672 at .05 level of significance. Results reject the hypothesis negating the significant difference in the level of reading comprehension of the experimental group in pre-test and post-test on the Filipino version of the test.

Table 21. Computed *t-value* of the experimental group pretest and posttest in Filipino version of the test

Groups	N	Mean	Sd	Sex	Mean Difference	t-value
Experimental	30	14.03	4.66	0.75	1.13	.96
Control	30	12.90	4.31	0.65		n.s
df	58	13.47				

Table 21, shows the comparison of the mean gains of the experimental and control groups in English version of the test. The experimental group gained a mean of 14.03 while the control group gained 12.90. A mean difference of 1.13 gained by both groups show *no significant difference.* Therefore, this accepts the hypothesis negating the significant difference in the mean gains of the experimental and control groups in the English version of the test.

Table 22. Computed *t-value* of the experimental group pretest and posttest in Filipino version of the test

Groups	N	Mean	Sd	Sex	Mean Difference	t-value
Experimental	30	13.17	4.50	0.698	1.5	1.31
Control	30	14.67	4.16	0.597		n.s
df	58	13.92				

The t-value obtained (1.31) shows that the medium of instruction did not affect the reading comprehension of the experimental and control groups in English version of the test. A mean difference of 1.5 shows *no significance difference*, in the level of reading comprehension of both groups in both versions of the test as revealed in the computed t-value of 1.31 which is lesser than the tabular value of 1.672 at .05 level of significance. These results accepts the hypothesis which states that there is no significant difference in the level of reading comprehension of the experimental and control groups in the Filipino version of the test.

The above findings consistently show that reading comprehension skills can be learned regardless of the language used as medium of instruction. As revealed in the post-test, both groups (experimental and control) an increased mean is gained. However, when the mean difference was obtained and tested, it found out no significance difference. This gain obtained by both groups in both media of instruction may be attributed to the learning that the students have gained from the skills taught during the experiment. This result can be supported by the study conducted by Orencia (1996) on the enhancement of pupils reading comprehension and attitudes through a whole

language-inspired literature-based reading program. Result showed that children's comprehension improved after they were exposed to whole language literature based-reading program. They experimented with language in their effort to communicate their thoughts; exhibited a sense of ownership for their written texts; and directed their own learning. In the present study, after the students were exposed to language (English or Filipino), they were able to transfer the skill from one language to another.

The Filipino training from the experimental group was easily applied in English language context. The result of the present investigation is also supported by Aguisanda (1995) who conducted a comparative study on the use of English and Filipino in the teaching of History 3. The findings revealed that there was no significant difference between the English and Filipino group mean on the basis of age difference. As to gender, means revealed that male and female performance were not significantly different from each other in both English and Filipino. This is further supported by the study conducted by Montaño (1999) on the Use of Second Language as Medium of Instruction on Students' Achievement in Science and Mathematics. Results showed that Mathematical and science concepts can be acquired through either English or Filipino as medium, of instruction. Thus, language of instruction does not affect the mathematical and Science achievement of the subjects. The same study was conducted by Cruz (1989) on the relative influence between English and Filipino as Media of Instruction in teaching Social Studies. The result revealed that interpreting graphs could be taught and learned influence in both languages.

CONCLUSIONS

The subjects of the study had not mastered the higher level reading comprehension skills (recognizing the main idea, characterization, predicting outcomes, making inferences and drawing conclusions) when they entered college. The students lacked critical thinking as revealed in their low achievement in higher level of comprehension both in English and Filipino overall pre-test. There is no significant difference between the reading achievement of the students in English and Filipino. This was revealed in their pre-test and post test results which consistently showed that their level of comprehension both English and in Filipino were likely of the same category. As indicated in their post-test, students who performed better in English also achieved better in Filipino both experimental and control groups. Results consistently showed that the English and Filipino instructed experimental group performed as well as the Filipino instructed control group in their reading achievement. This was consistently observed in results obtained by both groups when the test was taken as a whole and when classified according to sub skills. Language of instruction does not affect significantly the achievement in reading comprehension of the first year college students. Reading achievement in comprehension can be acquired using any medium of instruction. Any subject can be taught regardless of the medium of instruction used, English or Filipino. This means that those who can comprehend and learn in Filipino can also comprehend and learn in English. Language does not affect comprehension skills.

RECOMMENDATIONS

1. It is recommended that students need to be motivated and to be exposed to a lot of readings in English and in Filipino to develop maximum reading comprehension skills.
2. Teachers and librarians must collaborate to provide students with variety of reading materials in order for them to become strategic and effective readers.
3. Students' comprehension skills should be developed during their foundation years so that when they enter college, they already have the necessary skills to use in their studies, as reading during this period is intensive and strategic.
4. Teachers should continue to assess students' progress in order to ensure maximum achievement in reading comprehension skills.
5. A language program must be designed to help students improve their reading skills.
6. Teachers should undergo training on the art of translating English to Filipino or vice versa for the benefit of the students' different interests in reading.

7. A similar study is recommended involving variables that were not covered. Like cause and effect relationship, generalizing, vocabulary development, IQ (high, average, low), age (younger and older), and others.
8. Finally, it is recommended that replication of this investigation be done to find out if similar results can be attained and to assess the impact of the bilingual policy.

REFERENCES

Acuna, J., Cruz, I., Manalang, P., Miranda, B., & Bonifacio P. (1994). The Language Issue in Education. Manila: Congress of the Republic of the Philippines

Aguisanda, S. (1995). A Comparative study on the Use of the English and Filipino in the Teaching of History 3 (Rizal's Life Work and Writing), College of Arts and Science Southwestern University: Basis for Improved program.

Amorado, F. (1998). English Language Inadequacies of College of Saint Joseph College, Maasin, Southern Leyte: Bases for Proposed Preparatory College English Course.

Bernardino, H. (1998). Prior Knowledge, Language Proficiency, and the Reading Performance of Grade VI Pupils, UP, Quezon City.

Calderon, J. & Gonzales, E. (1999). Method of Research and Thesis Writing. Rex Printing Co. Incorporated

Calmorin, L. (1994). Educational Research Measurement and Evaluation. Second Edition Manila: National Bookstore.

Cruz, L. (1989). The Relative Influence between English and Filipino as Media of Instruction in Teaching Social Studies, PNU, Manila

Department Order No. 25, S. 1974. Implementing Guidelines for the Policy on Bilingual Education

Elleman, A. & Oslund, E. (2019). Reading Comprehension Research: Implications for Practice and Policy.

Gonzales, I. (1999). An Assessment of Reading Comprehension Skills of Grade V Pupils Using Teacher-Made Reading Comprehension Test

Goodman, K.S. (n.d). Reading is a Psycholinguistic Guessing Game. Goodman, Kenneth S. Reading is a Psycholinguistic Guessing Game.

Karimi, L. (2016) - The Impact of Teaching Critical Thinking Skills on Reading Comprehension of Iranian Intermediate EFL Learners

Montaño, L. (1999). The Use of a Second Language as Medium of Instruction on Students' Achievement in Science and Mathematics: First Three Years of Implementation, PNU Cadiz City

Orencia, M.A. (1996). The Enhancement of Pupils' Reading Comprehension and Attitudes Through Whole Language. Inspired Literature Based Reading Program, PNU, Manila

Sari, L. (2017). Improving Reading Comprehension Through Directed Reading Thinking Activity (DRTA) Strategy for Eight Grade Students of SMP Negeri Medan in the Academic Year of 2016-2017

Villamin, A. et al. (1984). Developmental Reading: Modern Educators Publishing Cooperative, Inc.