

Psychosociological Predictors of Maritime Students' English Proficiency

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Abstract

Due to the varying ability of ESL students to learn a language, many language teachers are prompted to investigate the students' proficiency in English and its relationship to some selected variables. This article presents a descriptive-correlation study of one of those language teacher researchers who was driven as well to unveil the relationship between the freshman maritime students' English proficiency and some psycho-sociological factors and ultimately, to determine the predictors of students' proficiency in English. The psychological variables included in this study are attitude toward English language, language anxiety, willingness to communicate and willingness to communicate. While prior grade in English, family income and exposure to media are considered as the sociological variables. Seven instruments were used in gathering the needed data. These were the English Proficiency Test, Strategy Inventory for Language Learning (SILL), Attitude toward English Questionnaire, Language Anxiety Questionnaire, Willingness to Communicate (WTC) Survey Questionnaire, Survey Questionnaire on Students' Exposure to Media, and Students' Profile Survey Questionnaire. The results of the study revealed that the following psycho-sociological factors significantly predict English proficiency: (a) writing anxiety, (b) language learning strategies of "learning with others" and "using all mental processes", (c) prior grade in English, and (d) use of cell phone. The study recommends to the English teachers the inclusion of the said variables among the factors to consider in enhancing the teaching of English.

Keywords: psycho-sociological factors, English proficiency, descriptive - correlational study

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Introduction

It is undeniable that English is increasingly used as the global lingua franca and employed in every domain of communication in the wide world over. In the maritime industry, communication at sea plays an extremely important role for “safer shipping and cleaner oceans”. However, with the increasing multilingual and multinational crew ships, the risk of human error in communicating essential information is inevitable. It is believed that both on-board and external communication that are not properly understood and executed would lead to very costly accidents. Trenkner (2002) estimated that “deficits in communication account for up to 35% of ship’s accident”.

In consequence of the aforesaid safety concerns, the International Maritime Organization (IMO) direly sees the need to adopt one working language for effective communications, and that language is English. According to Logie et al. (2001), the official adoption of English by the IMO as the language of the sea is a clear indication of giving importance of human resources to the development of the maritime industry, with safety of life at sea considered the topmost priority.

The Philippines, being the premiere source of maritime workers, is challenged with a commitment to produce maritime graduates who are at par with their international counterparts. However, the “high marketability” of Filipino seafarers is threatened by the deteriorating command of English among them.

A study of the National Maritime Polytechnic (NMP), one of the training centers for mariners in the country, revealed that one of the most common issues complained by Filipino seafarers in a mixed crew setting is the communication and language barrier caused by their inability in understanding English as their counterparts speak it. Likewise, Cervantes (2004) in his study concluded that Filipino seafarers are far way below in the global standard of English proficiency than what they are perceived to be.

The findings culled from the abovementioned studies are quite parallel to the maritime students’ English proficiency in Palompon Institute of Technology (PIT) where the present study was conducted. PIT, an IMO white-listed maritime school, was no exception to such challenging proficiency level of seafarers. Despite of the concerted efforts done by the administrators and language teachers to address this issue, language problems among students are recurrent. Because of this, the writer was prompted to make an inquiry and to secure sufficient data on the psychosociological constructs related to the English proficiency of freshman maritime students.

In order to gain a clearer understanding on the factors which have bearing on the success or failure in learning a second language (L2), the writer looked into a number of theories.

In the Acquisition - Learning Hypothesis of Krashen (cited by de la Cruz, 2000), acquisition is considered as the basic process involved in developing language proficiency and is distinct from learning. Acquisition refers to the unconscious development of the target language system, which results from using the language for

real communication. Learning, on the other hand, is the conscious representation of grammatical knowledge that has resulted from formal instruction, and it cannot lead to acquisition. While it is the acquired system that we invoke to create utterances during spontaneous language use, the learned system can serve only as a monitor of the output of the acquired system. Krashen stressed that language learning takes place through using language communicatively, rather than through practicing language skills.

On the other hand, he argued that people acquire L2s only if they obtain comprehensible input and if their affective filters are low enough to allow the input “in”. In his affective filter theory, affect is exemplified as motivation, attitude, anxiety, and self-confidence. These factors are seen to play an important role in acquiring an L2. Comprehensible input may not be utilized by L2 acquirers if there is a “mental block” that prevents them from fully profiting from it. The filter is up when the acquirer is unmotivated, lacking in confidence, or concerned with failure. The filter is down when the acquirer is not anxious and is trying to become a member of the speaking group.

In this study, willingness to communicate (WTC), a recent addition to the affective variables coming from the field of speech communication, was also included. McCroskey et al. in Hashimoto (2002) employed the term to describe the individual’s personality - based predisposition toward approaching or avoiding the initiation of communication when free to do so. WTC is seen to affect authentic communication in L2 and has been considered as a good predictor of frequency of communication.

Another factor which contributes to all parts of the learning - acquisition continuum is the language learning strategies. Oxford in Englis (2001) pointed out that learners use specific actions or techniques, often intentionally, to improve their progress in developing L2 skills. These strategies can facilitate the internalization, storage retrieval, or use of the new language and serve as tools for the self-directed involvement necessary for developing communicative ability.

The grade point average (GPA) in previous related subject has likewise been shown to affect students’ school performance. Alkin in Golo (2003) succinctly stated that grade point average in different subject areas is a predictor of academic performance.

The use of the different language learning resources is also found to affect learners’ performance. According to Villamin as cited by Tupaz (2002), books, reference materials, and other nonbook materials such as newspapers and magazines, audiovisual materials and automated information sources are treasury of knowledge that facilitates the teaching - learning process. Hence, the frequency of use and exposure of the above learning resource materials, which was considered as one of the independent variables of the study, can possibly affect the English proficiency of the students.

Considering the cited theories, the present study was designed to verify, prove, or confirm the foregoing claims of language theorists, experts and researchers that the students’ level of proficiency in English is influenced by a number of factors. In this study, the selected factors which are thought to affect the students’ proficiency level

in English are classified into two - the psychological and sociological factors. Figure 1 shows the variables used as well as the flow of the study.

Thus, the main objective of the study was to determine the predictors of the English proficiency of the Marine Transportation and Marine Engineering students. It sought answers to the following questions: 1) What is the English proficiency level of the students?; 2) What is the relationship between the English proficiency and each of the: psychological and sociological factors?; and 3) What are the factors best predict English proficiency?

The study utilized the descriptive-correlation research design. The respondents were 200 students who were randomly selected from a population of 238 first-year Marine Transportation and Marine Engineering students.

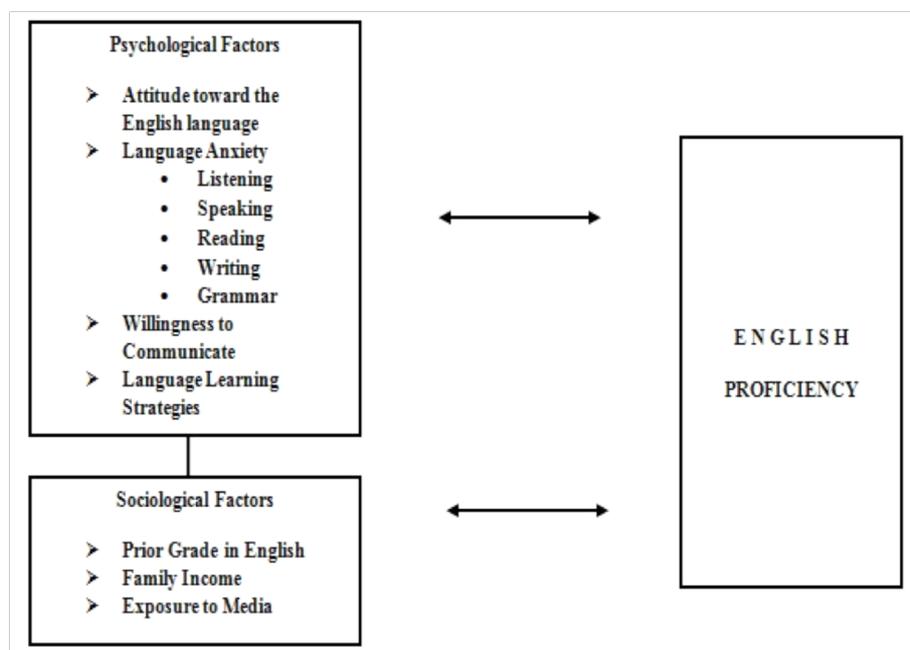


Figure 1. A Schematic Diagram Showing the Variables Used in the Study

The needed data were collected using the English Proficiency Test, Strategy Inventory for Language Learning (SILL), Attitude toward English Questionnaire, Language Anxiety Questionnaire, Willingness to Communicate (WTC) Survey Questionnaire, Survey Questionnaire on Students' Exposure to Media, and Students' Profile Survey Questionnaire.

All the statistics were computer processed with the SPSS software. The statistical analysis procedure applied on the data included frequency, percentage distribution, mean, weighted mean, standard deviation, Pearson r correlation, Eta correlation and Multiple Stepwise Regression.

Respondents' Profile

The study showed that in terms of the psychological factors, the respondents generally used the strategy of "learning with others" (3.52) in learning English, had favorable

attitude towards the English language (2.40), had moderate language anxiety (3.51) and had high willingness to communicate (2.98).

In terms of the sociological characteristics, the respondents had a good prior grade in English (84.43%), belonged to low income families (32.5%) and were less frequently exposed to media (2.79).

With regard to their English proficiency, the freshman maritime students were on the average level. This means that generally the students can use the English language accurately and appropriately.

Relationship between Psychological Factors and English Proficiency

Findings of the study showed that significant correlation between three language learning strategies and English proficiency. “Remembering more effectively” had significant correlation with the students’ proficiency in grammar 2 and with their writing proficiency. The positive correlation implies that the students with high proficiency in grammar 2 ($r = 0.17$) and in writing ($r = 0.17$) remember more effectively than the students with low proficiency in both skills. Likewise, positive significant correlations resulted when the strategy “using all mental processes” was paired with listening ($r = 0.15$); with grammar 2 ($r = 0.18$), and with writing proficiency ($r = 0.16$). The significant correlation between the variables means that the students with high proficiency in listening, grammar 2 and in writing used more mental processes than those with low proficiency in the three skills. The variable “using all mental processes” also had significant correlation with the overall English proficiency of the students (with a computed r of 0.19).

“Learning with others” on the other hand, only showed significant relationship with proficiency in the fundamentals of grammar. The computed r of negative 0.14 indicates that learning with others did not seem to promote proficiency in grammar.

Table 1
Correlation between Psychological Factors and English Proficiency (N=200)

Psychological Factors	Proficiency in English						
	LS	GS1	GS2	RS	WS	SS	CS
Overall Language Learning Strategies	.12	-.01	.13	.01	.06	.03	.09
Remembering More Effectively	-.00	.06	.17*	.01	.17*	.07	.12
Using All Mental Processes	.15*	.08	.18*	.11	.16*	-.05	.19**
Compensating for Missing Knowledge	.12	.09	.09	.02	.05	.00	.09
Organizing/ Evaluating Knowledge	.04	.04	-.11	.08	.00	.08	.10
Managing Emotions	.09	-.10	-.00	-.08	-.03	-.02	-.05
Learning with Others	.11	-.14*	.00	-.13	-.12	.01	-.10
Attitude toward English Language	.09	.06	.09	-.04	.08	.16*	.08
Overall Language Anxiety	.10	.09	.09	.13	.24*	.07	.20*
Listening Anxiety	.04	.13	.01	.11	.21**	.02	.16*
Speaking Anxiety	.07	.04	.07	.12	.19**	.04	.16*
Reading Anxiety	.07	.09	.12	.09	.15*	.10	.16*
Writing Anxiety	.11	.07	.12	.15*	.23**	.03	.21*
Grammar Anxiety	.09	.02	.00	.01	.14	.08	.08
Willingness to Communicate	-.07	.05	.09	.04	.11	.17*	.09

Legend:
 LS - Listening Score RS - Reading Score CS - Composite Score (Overall Proficiency)
 GS1- Grammar Score1 WS - Writing Score * significant at 0.01 level
 GS2- Grammar Score2 SS- Speaking Score ** significant at 0.05 level

Significant correlation also existed between attitude toward English and English proficiency in speaking. The computed r of 0.16 with p -value < 0.01 suggests a weak but significant correlation. This result indicates that the students who have favorable attitude toward English tend to have high level of speaking proficiency than the students with poor attitude. In addition, the more favorable the respondents' attitude toward the language is the more they can express their ideas orally using the English language.

Moreover, the students' anxieties in listening, speaking, reading and writing were significantly related to writing skill as indicated by the computed r 's which were all interpreted as low correlation only.

A weak but significant correlation was also found between the respondents' level of writing anxiety and their level of reading proficiency ($r = 0.15$; p -value < 0.05). This means lower levels of writing anxiety are not a good indicator of the level of reading proficiency.

When all aspects of language anxiety were combined and correlated with English proficiency, the correlation showed that there is a significant relationship between language anxiety and writing; and between language anxiety and overall English proficiency.

Similar to the respondents' attitude toward English, willingness to communicate was significantly related (but of weak correlation) to the level of the respondents' speaking proficiency ($r = 0.17$, p -value < 0.05). The direction of the correlation was positive

and this indicates that students who are willing to communicate tend to speak well in the class than those respondents who are hesitant.

Taking all these psychological factors, only the learning strategy of “using all mental processes” and overall language anxiety, including the anxieties in listening, speaking, reading and writing correlated with the overall English proficiency.

Relationship between Sociological Factors and English Proficiency

There was a statistically significant but weak correlation between prior grade in English and English proficiency in grammar 1 ($r = 0.24$), grammar 2 ($r = 0.26$), reading ($r = 0.27$) and writing ($r = 0.31$). The positive direction of the four correlations means that in general, students with high English grades tend to have high proficiency in grammar 1, grammar 2, reading and writing.

Table 2
Correlation between the Respondents' Proficiency in English and Prior Grade in English, Gross Monthly Family Income (N=200)

Sociological Factors	Proficiency in English						
	LS	GS1	GS2	RS	WS	SS	Composite
Prior Grade in English	.10	.24**	.26**	.27**	.31**	.14	.40**
Family Income	.11	.20	.27**	.29**	.25**	.09	.31**

Legend:

LS - Listening Score RS - Reading Score Composite - Overall Proficiency
 GS1- Grammar Score1 WS - Writing Score * significant at 0.01 level
 GS2- Grammar Score2 SS- Speaking Score ** significant at 0.05 level

Prior grade in English showed high significant correlation ($r = 0.40$) with the overall English proficiency of the students.

Family income was likewise found to have significant relationship with most of the six areas of English proficiency as follows: grammar 2 ($r = 0.27$), reading ($r = 0.29$) and writing ($r = 0.25$).

When family income was correlated with the overall English proficiency, it showed a significant relationship. The direction of the correlation was positive. Such finding implies that the higher the income of the students' families the more likely they can be provided with their needs which, in turn, contribute to the enhancement of their proficiency in English

Relationship between Extent of Exposure to Media and English Proficiency

The respondents' exposure to 7 out of 12 media showed significant correlation with their English proficiency. These were the television, radio, computer with internet, computer with Word processor, newspaper, magazine and cell phone.

The students' frequent exposure to television significantly correlated with their speaking proficiency ($r = 0.20$). This result affirms the fact that watching television, especially English programs, provides opportunities to learners to be exposed to the

target language and eventually leads to the development or enhancement of their speaking ability.

A significant correlation also existed between exposure to radio and grammar 2 ($r = 0.15$). Though the correlation was weak, this suggests that the authenticity of the English language provided in radios contributes to the students' knowledge on constructing sentences.

Table 3
Correlation between Proficiency in English and Extent of Exposure to Media (N=200)

Media	Proficiency in English						
	LS	GS1	GS2	RS	WS	SS	CS
TV	.00	.05	.11	.08	.11	.20**	.13
VCD/DVD	.03	.07	.02	-.10	-.06	-.01	-.01
Films & Movies	-.04	.06	.13	.04	.12	.12	.11
Video Game	-.12	.09	-.02	-.05	.04	.05	-.02
Videoke	.02	.02	.04	-.00	-.14	.07	.07
Radio	-.02	-.08	.15*	.07	.09	.06	.12
Computer with Internet	-.14*	.20**	.11	.06	.20**	.09	.14
Computer with Word Processor	-.04	.20**	.13	.03	.12	.11	.13
Newspaper	-.08	.18*	.05	.10	.10	.10	.12
Magazine	-.07	.20**	.05	.10	.12	.07	.13
Cell phone	-.07	.14*	.12	.16*	.20**	.07	.19**

Legend:

LS - Listening Score

GS1- Grammar Score1

GS2- Grammar Score2

RS - Reading Score

WS - Writing Score

SS - Speaking Score

Composite - Overall Proficiency

* significant at 0.01 level

** significant at 0.05 level

The use of computer with internet, on the other hand, negatively correlated with listening ($r = -0.14$). The negative correlation suggests that the more exposure to computer with internet means less proficiency in listening. However, exposure to computer with internet showed a significant correlation with grammar 1 ($r = 0.20$) and writing ($r = 0.20$). Such finding can be attributed to the fact that the internet, having an unlimited supply of information, can provide supplemental activities for students who wish to improve their technical usage of the language.

Results of the analysis also revealed that exposure to computer with Word processor, newspaper and magazine correlated with grammar 1. This result suggests that the more exposed the students are to these media the better will be their knowledge on the fundamentals. Reading newspaper and magazine, on the one hand, seems to foster the students' language skills. According to Cummins (1998), the more the learners read in the target language, the more access they get to its vocabulary, grammar, idioms, and so on, and the more of the language they learn, their knowledge of grammar is enhanced.

The use of cell phone in text messaging, likewise, correlated with grammar 1 ($r = 0.14$), reading ($r = 0.16$) and writing ($r = 0.20$). This finding may be due to the

innovative strategies developed by text communicators in expressing themselves through typed text.

When all these media correlated with the overall proficiency, only the use of cell phone showed a significant correlation ($r = 0.19$).

Predictors of English Proficiency

Of the psychological variables considered in the multiple regression only three came out as predictors of English proficiency of the freshman maritime students, and they were as follows: writing anxiety, using all mental processes, and learning with others.

Table 4
Regression of Psychological Factors on the Students' English Proficiency (N=200)

Model	Unstandardized Coefficient		Standardized Coefficient	t	p-value
	B	Std. Error	Beta		
(Constant)	129.063	8.931		14.451	<.001
Writing Anxiety	0.714	0.302	0.165	2.368	0.019
Using All Mental Processes	1.307	0.419	0.228	3.122	0.002
Learning with Others	-1.189	0.582	-0.150	-2.041	0.043

Adjusted $R^2 = 0.08$; Computed $F = 6.754$; $p < .001$

The multiple correlation coefficient (R), using all the predictors simultaneously, is 0.31 and the adjusted R^2 is 0.08, meaning that 8% of the variance in English proficiency can be predicted from the combination of the psychological factors. The ANOVA table, on the other hand, shows that $F = 6.75$ and is statistically significant. This indicates that the combination of the predictors significantly combine together to predict English proficiency. The predictive ability of the variable writing anxiety explains the motivating factor of the language anxiety on the students' proficiency. That is, the anxiety felt by the respondents had stimulated them to some extent to achieve the expected goal (Biggs in Zhang, 2001).

On the other hand, of the sociological factors, prior grade in English and the use of cell phone were found to be predictors of English proficiency.

The multiple correlation R was 0.423 and the adjusted R^2 was 0.17 which suggests that 17% of the variance in English proficiency can be predicted from a combination of prior grade in English, family income and exposure to media.

Table 5
Regression of Sociological Factors on the Students' English Proficiency (N=200)

Model	Non-standardized Coefficient		Standardized Coefficient	t	p-value
	Beta	Std. Error	Beta		
Constant	2.871	26.901		0.107	0.915
Prior Grade in English	1.663	0.321	0.361	5.188	<.001
Use of cell phone	7.797	2.953	0.184	2.640	<.001

Adjusted $R^2 = 0.17$; $F = 18.76$; $p\text{-value} < .001$

Table 5 shows that $F = 18.76$ was statistically significant. This indicates that the combination of the predictors can predict English proficiency. The standardized beta coefficient of 0.361 for the predictor prior grade in English suggests that it can predict better English proficiency than the use of cell phone which has beta coefficient of 0.184. The t-values and significance level shown in the table mean that the two sociological variables can significantly contribute to the equation for predicting English proficiency.

Conclusion

On the basis of the aforementioned findings, the following conclusions were drawn:

1. Students generally used the strategy "learning with others" in learning the English language. This means language teachers could utilize group work or cooperative learning in various classroom activities for their students' optimum learning of the English language.
 2. The students' favorable attitude toward English language and high willingness to communicate failed to manifest significant relationship with their overall proficiency. However, such result is a positive indicator that this group of students has bigger chances to improve the average level of their proficiency in English.
 3. The anxiety felt by the students in learning the English language seemed to facilitate their English proficiency. Thus, the lower is the anxiety the better is the English proficiency.
 4. Grades in the English subjects previously taken indicate or predict English proficiency, in the same way family income does.
 5. The different types of media, such as television, radio, computer, newspaper, magazine and cell phone also seem to prove their contribution to one's language performance.
 6. Among the psychosociological factors, writing anxiety, learning strategies of using all mental processes and learning with others, prior grade in English, and use of cell phone were found to be significant predictors of students' English proficiency.
- Based on the findings and conclusions, the following are recommended:

1. In their teaching approach, language teachers should capitalize on the identified strategies, specifically “learning with others” and “using all mental processes”, that students use to facilitate language learning and adopt classroom instruction accordingly like group activities, peer teaching and the like.
2. There is a need also for language teachers to adopt humanistic activities, like group activities and cooperative writing, in order to lower the affective filter in their English writing class since writing anxiety was found to predict the students’ overall English proficiency.
3. The scores obtained by the students in the English proficiency test proved to be average. Thus, there is a need to improve English language skills (listening, speaking, reading and writing) to meet the language competence specified in Standard of Training, Certification and Watchkeeping (STCW) Code, which in turn makes the maritime students marketable to international shipping companies. Conducting remedial classes and peer-tutoring can be some of the activities to undertake relative to this.
4. Since prior grade in English was found to predict the overall English proficiency, it is suggested that the Screening Committee for freshman students set the required high school grade in English higher than the present required average grade point of 80. In addition to this, an English proficiency test which covers the four language skills should be included in the College Admission Test of the Institute.
5. A follow-up study be conducted, this time using a Standardized English Proficiency test for Seafarers, including other variables not investigated in this study.

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