

Why Are You Learning English? Identifying The Relationship Between Motivation, Anxiety and Intended Effort

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Abstract. South Bengkulu Dept. of Education in 2017 initiated English Community Learning Program (PPKBI), addressed to all high school students in South Bengkulu Regency. As the program progresses, students' learning motivation tends to dissipate, seen from the decreasing number of participants. It is important to identify various factors influencing student's performance in learning English. Identifying the relationship between motivation, anxiety and intended effort in learning English. This study used data from 315 high school students in South Bengkulu Regency, participants of PPKBI 2017 (average 16.15 years, 179 female). Questionnaires was distributed randomly. The questionnaire consisted of 40 items (LLOS / Language Learning Orientation Scale (24 items), Foreign Language Class Anxiety Scale (6 items) and Intended Effort (10 items). Analysis done by identifying common factors using Exploratory Factor Analysis, followed with Confirmatory Factor Analysis (CFA). The hypothesized model fulfills the requirement of goodness of fit index and questionnaires have good validity and reliability indexes. The model explains that most students who follow through with PPKBI are more intrinsically motivated; Intrinsic Motivation Stimulation, based on a positive sensation when hearing or pronouncing an English vocabulary; Intrinsic Motivation Achievement, based on positive feelings after mastering English; and Intrinsic Motivation Understanding, based on the desire to develop English proficiency. Briefing related to these findings may increase student retention in the PPKBI program for the following year.

1. Introduction

1.1 Background

The Indonesian government, through the Department of Education and Culture, emphasises the importance of mastering English for students in Indonesia. Various policies related to this have been issued, such as the Ministry of Education and Culture Decree No. 096/1967 released on 12th December 1967 concerning the Function and Purpose of Teaching English in Secondary Schools. The main points of the above ministerial decisions state that (1) English is the first foreign language taught in secondary school, (2) the purpose of English language teaching is to develop student's communicative abilities and (3) the English language skills developed are to include reading, listening, writing and speaking skills [1].

Although the Government has emphasised English language mastery, recent study results indicate that Indonesian high school students' achievement is still relatively low compared to that of students from neighboring countries, rank 34 of 44 countries assessed [2].

The government of South Bengkulu Regency aspires to improve English skills specifically for high school students. In an effort, the government of South Bengkulu Regency initiated a breakthrough by starting the English Community Learning Program (Program Pembelajaran Komunitas Bahasa Inggris; PPKBI in 2017) [3]. This is an English learning program aimed at all high school students in South Bengkulu Regency and is fully funded by the Regional Government of South Bengkulu. This program can be attended by every high school student in South Bengkulu, but the initial participants of the program were selected by the schools and the lecturer. PPKBI lecturers, consisting of both local and international English teachers, were brought in from Jakarta.

As the program progressed, a noticeable change in the motivation and learning of students took place. At first, the mental attitude of these students was positive and they possessed a desire to master English, but after a few months, the participation rate dropped, supposedly due to lack of motivation. When reviewing the literature, similar conditions indicating changes in mental attitudes in students' desire to learn English are found to be highly related to motivation [4]. In addition to motivation, foreign language anxiety also determines student performance and learning achievement [5].

1.2. Motivation for Learning Foreign Languages

[6] suggest that there are three main types of motivation: amotivation, extrinsic and intrinsic motivation. These motivational orientations can be placed in a continuum ranking from the lowest to the highest level of self-determination. At opposite ends of the continuum are the absence of motivation (amotivation) and intrinsic motivation. Between those ends there are four types of extrinsic motivation: external regulation, introjected regulation, identified regulation, and integrated regulation. Amotivation can be described as the absence of all consequences to people's behaviour. This absence leads to them having no intrinsic nor extrinsic motivation and they will drop the task as soon as there is an activity with a higher motivational value available. External regulation is not at all self-determined and refers to motivation arising from activities that lie outside the student, such as real benefits and costs. Introjected regulation is more internally regulated and motivates people by inducing internal pressure such as avoiding guilt. The type of extrinsic motivation that is the most self-determined is identified regulation. Identified regulation motivates people to take action to achieve goals for personal reasons.

Intrinsic motivation causes students to act for personal pleasure and satisfaction. It refers to the internal desire to do an action because the activity is fun and satisfying. Students are intrinsically motivated when they learn for the sole purpose of learning and consider this activity as interesting and challenging [7].

According to [8], in the context of foreign language learning, intrinsic motivation can be divided into three categories. The first category is knowledge, in which motivation arises from the pleasure people feel from exploring new ideas and gaining new information. The second relates to accomplishments, the feeling we get when we achieve goals or complete tasks. The third category of intrinsic motivation involves stimulation, the pleasure and satisfaction people feel from working on tasks.

1.3. Language Anxiety

[9] defines foreign language anxiety as feelings of worry and negative emotional reactions that are generated when learning or using a second language. [10] identify three types of foreign language anxiety: communication apprehension, fear of negative evaluation and test anxiety. They developed a questionnaire consisting of 33 items, the Foreign Language Class Anxiety Scale (FLCAS), aimed at measuring language anxiety. In this regard, a lot of research has investigated language anxiety. Although some studies show a positive relationship between language anxiety and language achievement [11], most indicate that language anxiety is negatively related to language mastery [9], [12]. In other words, the higher the proficiency of a foreign language subject, the lower the anxiety one feels in the learning context.

1.4. Intended Effort

Intended effort can be understood as the desire and intention of individuals to work, and spend energy and time on language learning activities [13] [14].

As motivation is an antecedent of behaviour and only indirectly related to performance, intended effort is measured as an outcome variable in this study. As a more direct antecedent of performance than motivation itself, intended effort measures the magnitude of motivated behaviour as opposed to the direction which is defined as English learning in this study.

1.5. The relationship between motivation, anxiety and intended effort

Several studies have investigated the complex relationship between the aforementioned variables. In a similar study [15] found out that motivation is negatively and significantly related to anxiety in Chinese undergraduate students. Students who show higher motivation experience less anxiety. They also found out that especially amotivation and introjected regulation predicted students' anxiety. Tóths (2007) study connected anxiety to amotivation motivation showed that especially extrinsic motivation increases anxiety scores in language learning.

Csizér and Dörnyei's study from 2005 indicated that students who rank higher in motivation also put the most effort into learning a second language in a Hungarian context. Another of their studies showed that especially integrativeness is related to higher intended effort scores.

1.6. Research questions

1. What characterises high school students' motivation for learning English in South Bengkulu Regency?
2. What characterises student English language anxiety in South Bengkulu Regency?
3. Does the proposed model of the relationship between English learning motivation, English learning anxiety and intended effort adequately describe the data in the context of English learning in high school students in South Bengkulu Regency?

2. Method

2.1. Population and sample

The study sample included students visiting High Schools in the Bengkulu Selatan, including students who were and are still involved in the PPKBI program. Data collection was conducted in schools where PPKBI participants attend school. The sampling technique used was non-probability convenience sampling. This is based on consideration of ease of access to the sample. In addition, convenience sampling allows obtaining relatively large samples in a short time [16].

2.2. Measures and instruments

The measurement instruments used in this study were as follows:

- Language Learning Orientation Scale (LLOS), a scale developed by [8]. The LLOS has 21 items, arranged in 7 parameters, with each parameter consisting of 3 items. This scale is intended to measure the level of motivation of students learning foreign languages.
- Foreign Language Class Anxiety Scale (FLCAS), a scale developed by [10]. FLCAS has 33 items. This scale measures students level of anxiety in learning foreign languages.
- Intended Effort, a scale developed by [13]. The Intended Effort scale has 10 items. All items in the questionnaire are presented on a Likert scale consisting of five values (1: Strongly Disagree; 2: Disagree; 3: Neither; 4: Agree; 5: Strongly Agree). It measures the intentions of individuals to devote energy, effort and time to learning foreign languages.

2.3. Procedure

In the initial stage, reliability testing was carried out on the questionnaire by conducting a pilot study including 138 students (average age 16.41 years; 64 male).

After ensuring good reliability by method of item modification, an exploratory factor analysis (EFA) was conducted on LLOS and FLCAS to identify the main factors that had the highest influence on English learning in the context of high school students in the South Bengkulu Regency. For the EFA a different sample group than in the first study was used. This dataset included 315 high school students from South Bengkulu Regency (average age 16.15 years, 179 girls).

Once the significant factors from each instrument were obtained, the reliability of the resulting new factors is assessed for each instrument. EFA and reliability analysis were performed using SPSS 13 software.

In the next stage a confirmatory factor analysis (CFA) was carried out for each instrument, involving the common factors found in the EFA. Following this, the hypothesized model was modified, to obtain a model that met a satisfactory goodness-of-fit index. CFA analysis was performed using Lisrel 8.8 software.

3. Results

3.1. Pilot Study

FLCAS scale consisted of 33 items ($\alpha = .795$), LLOS scale consisted of 21 items ($\alpha = .795$) and Intended Effort Scale consisted of 10 items ($\alpha = .848$). As all values exceed 0.7 it can be concluded that all instruments used have an acceptable reliability value [17].

3.2. Exploratory Factor Analysis

To examine the structure that underlies FLCAS and LLOS, Exploratory Factor Analysis (EFA) was conducted on the data of the main study, which consisted of 315 students. In the initial stage of the EFA, Principal Component Analysis (PCA) using the Keiser-Meyer-Olkin (KMO) test was performed independently for each instrument to determine the feasibility of the sample. The KMO tests obtained values of 0.774 and 0.857 for FLCAS and LLOS respectively, indicating that the sample selected for this study and the intended factor analysis have the potential to produce the best common factor. Bartlett's test of sphericity yielded significant results for FLCAS ($\chi^2 = 1815,475$ df = 528, $p < .0001$) and LLOS ($\chi^2 = 1480.161$, df = 210, $p < .0001$) indicating that the sample used fulfilled the assumption of homoscedasticity.

The factors chosen meet the condition of having Eigenvalues greater than one. The FLCAS instrument produced 10 factors, which explained cumulative variance of 56.5%. The LLOS instrument produced 5 factors, with cumulative variance explained at 51.9%.

Furthermore, to ensure that the factors are not correlated with each other, PCA is performed using oblique rotation, on a number of specific factors, 10 factors for FLCAS and 5 factors for LLOS, with a factor load value limit of 0.4. Oblimin rotation was done based on the assumption of the existence of correlation between each factor. The correlation matrix between factors of the two instruments is presented in table 1 and table 2.

Table 1. Correlation table between each FLCAS factors

Comp.	1	2	3	4	5	6	7	8	9	10
1	1.000	-.021	.197	.026	-.165	.214	.215	-.167	-.020	-.009
2	-.021	1.000	-.091	-.039	.008	.000	.068	-.092	-.091	.225
3	.197	-.091	1.000	.037	-.149	.140	.141	-.045	.024	-.184
4	.026	-.039	.037	1.000	-.029	.029	.057	.010	-.031	.042
5	-.165	.008	-.149	-.029	1.000	1.000	-.129	.146	.034	.041
6	.214	.000	.140	.034	-.121	-.121	.165	-.141	-.007	-.014
7	.215	.068	.141	.057	-.129	-.129	1.000	-.139	-.034	.028
8	-.167	-.092	-.045	.010	.146	.146	-.139	1.000	.053	-.92
9	-.020	-.091	.024	-.031	.034	.034	-.034	.053	1.000	-.112
10	-.009	.225	-.184	.042	.041	.041	.028	-.092	-.112	1.000

Table 2. Correlation table between each LLOS factor

Comp.	1	2	3	4	5
1	1.000	-.141	.346	-.092	.280
2	-.141	1.000	-.156	-.031	-.190
3	.346	-.156	1.000	-.066	.298
4	-.092	-.031	-.066	1.000	-.028
5	.280	-.190	.298	-.028	1.000

From table 1 and table 2, it can be concluded that the correlations between each of the factors of both instruments are small ($r < 0.4$), indicating that between each factor of the partnership there is no meaningful relationship.

Since all the factors are orthogonal to each other as indicated by the tables 1 and 2 the EFA was continued by conducting a PCA using varimax rotation.

After extracting all the common factors, each common factor was tested for reliability. Items were added to each factor based on the factor loading. Items that load on two or more factors at once were added to the factor with the highest factor load. Items with a negative load were removed. Factor loadings are presented in in table 3 and table 4.

Table 3. Factor loadings of common factor for LLOS

	Component				
	1	2	3	4	5
AMOT01					.695
AMOT02					.765
AMOT03					.709
EXT01				.617	
EXT02				.668	
EXT03				.674	
INTRO01			.478	.043	
INTRO02			.712		
INTRO03			.693		
IDEN01	.461		.420		
IDEN02	.662				
IDEN03	.407		.499		
KNOW01		.504			
KNOW02	.572	.446			
KNOW03	.473				
ACCOM01	.572				
ACCOM02	.639				
ACCOM03		.510			
ATIM01		.528			
STIM02		.640			
STIM03		.636			

Table 4. Factor loadings of common factor for FLCAS

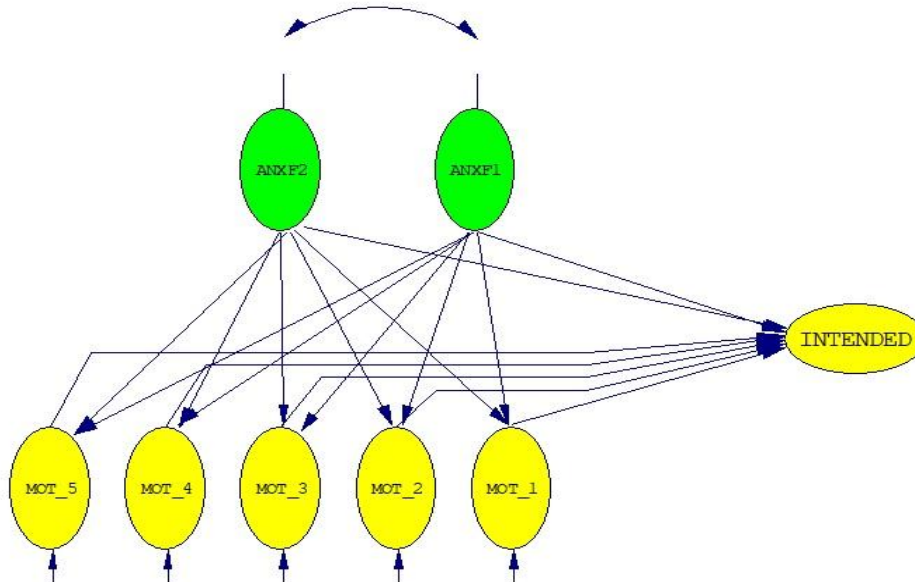
	Component									
	1	2	3	4	5	6	7	8	9	10
ANX01			.410							
ANX02				.598						
ANX03	.553									
ANX04	.443									
ANX05		.567								
ANX06										
ANX07					-.507			-.426		
ANX08		.509								
ANX09	.561									
ANX10		.575								
ANX11								-.430		
ANX12	.443									
ANX13									.413	
ANX14										
ANX15	.453							-.453		
ANX16	.556									
ANX17		-.428								
ANX18		.424								
ANX19	.451									
ANX20	.548									
ANX21	.416									
ANX22		.540								
ANX23	.450									
ANX24	.610									
ANX25										
ANX26	.519							-.418		
ANX27	.595									
ANX28		.531								
ANX29	.503									
ANX30	.534									
ANX31	.583									
ANX32		.520								
ANX33	.603									

After extracting all the common factors, each common factor was tested for reliability. Items were added to each factor based on the magnitude of factor loading. In EFA results, FLCAS and LLOS have 2 and 5 common factors respectively.

3.3. Structural Equation Modelling

Based on previous literature, a model with three latent variables (language learning anxiety, language learning motivation, and intended effort) was built. It proposed that language learning motivation is influenced by language learning anxiety. This is based on the assumption that the more self-determined the motivation of a student is a student is, the lower the level of anxiety he or she feels [8]. Since for anxiety only AnxF1 and ANXF2 with the alpha values, AnxF3 to AnxF10 are left out in the proposed model. Therefore, a direct path from language learning motivation to language learning anxiety is hypothesized. It is also proposed that motivation and anxiety in language learning are closely related to intended effort [8]. Furthermore, a pathway of language learning motivation and anxiety to intended effort is expected. The proposed model is displayed in Figure 1.

Figure 1. Proposed structural model of LLOS, FLCAS and Intended Effort

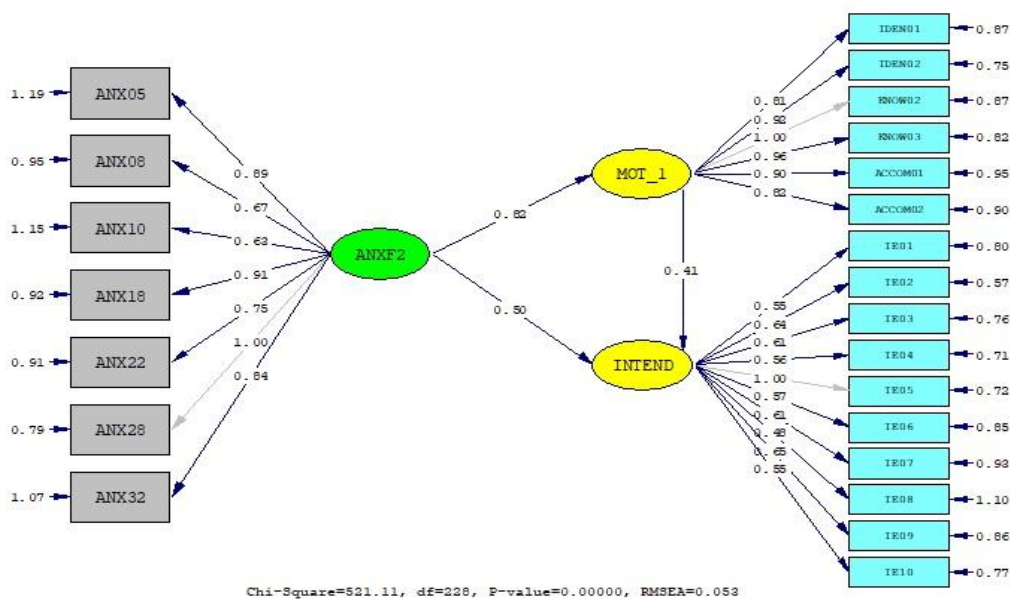


In order to test construct validity, it is more appropriate to use CFA than EFA. The Confirmatory Factor Analysis (CFA) is theory driven. By using CFA, it is possible to find significant inhibiting factors in the factor model.

A better goodness-of-fit value that fulfils the criteria of unidimensionality can be achieved by item modification. Items that need to be modified are those with a negative factor loading or a small factor load (less than 0.4). Items with small factor loading indicate multidimensionality.

In addition to eliminating negative and small loading items, it is also necessary to identify correlations of items with each other. Items that show high correlations need to be eliminated. If there are multiple items correlating with each other the item with the lowest factor loading is taken out of the model first.

Figure 2. Final structural model of LLOS, FLCAS and Intended Effort



3.4. Factor Loadings

To answer the first and second research questions, the following table is given :

Table 5. The factor load table of each item on the ANXF2 and MOT1

Item description	Load	t-value	Err. Var.	Adj. R ²
I choose to be a person who can speak more than one language (Iden01).	0,81	8,64	0,87	0,27
I am sure English is important for self-development (Iden02).	0,92	9,54	0,75	0,36
I learn English for the satisfaction I get from knowing new things (Know02).	1,00	12,53	0,87	0,37
I enjoy the feeling of gaining knowledge about English-speaking countries / communities and how they live their lives (Know03).	0,96	9,55	0,82	0,36
I learn English for the pleasure I feel when I surpass myself in English (Accom01).	0,90	8,92	0,95	0,30
I learn English for the pleasure I feel when I understand difficult concepts of the English language (Accomp02).	0,82	8,60	0,90	0,27
It wouldn't bother me at all to take more English lessons / add hours to my English lessons (ANX05).	0,89	7,09	1,19	0,21
I am usually at ease during tests in my English class (ANX08)	0,67	6,35	0,95	0,15
I am worried about the consequences of failing my English class (ANX10)	0,63	5,69	1,15	0,12
I feel confident when I speak English in English class (ANX18)	0,91	7,68	0,92	0,26
I don't feel pressure to prepare very well for English class (ANX22)	0,75	6,93	0,91	0,19
When I am on my way to english class, I feel very sure and relaxed (ANX28)	1,00	12,11	0,79	0,33
I would probably feel comfortable around English native speakers (ANX32)	0,84	6,80	1,07	0,20

3.5. Multiple Regression Analysis

Regarding the third question, the relationship between English learning motivation, English language learning anxiety and English learning performance in high school students in South Bengkulu was examined using multiple regression analysis is performed, with each coefficient value given in the following table 6:

Table 6. Regression coefficient values on INTEND

	ANXF2		MOT_1		Adj. R ²
	β	t	β	t	
INTEND	0,50	2,47	0,41	2,41	0,24
MOT_1	0,82	4,89			0,52

4. Discussion

The study includes high school students in South Bengkulu, encompassing the participants who still attend PPKBI. This study aimed to identify the characteristics of motivation and anxiety in learning

English in high school students in the South Bengkulu Regency, by modifying and validating instruments for measuring foreign language learning motivation (LLOS) and the anxiety of learning foreign languages (FLCAS) which is associated with the effort put into foreign language learning (intended effort).

The good model fit of the proposed model and the reliability of the new scales indicate that the study was successful.

To answer the question “what characterizes the motivation of students in South Bengkulu?” (the first research question), the following items were derived from students who were still following PPKBI and showed a high level of intended effort. The items characterising students with a high motivation score and high intended effort score are as follows:

1. *“(Because) I choose to be a person who can speak more than one language.”*
2. *“(Because) I am sure English is important for self-development.”*
3. *“I learn English for the satisfaction I get from knowing new things.”*
4. *“(Because)I enjoy the feeling of gaining knowledge about English-speaking countries / communities and how they live their lives.”*
5. *“I learn English for the pleasure I feel when I surpass myself in English.”*
6. *“I learn English for the pleasure I feel when I understand difficult concepts of the English language.”*

In regard to the second research question, which referred to the features of students’ language anxiety the following items were related to high intended effort:

1. *“I am not worried about increasing the number of English classes”*
2. *“I am usually at ease during tests in my English class”*
3. *“I am worried about the consequences of failing my English class”*
4. *“I feel confident when I speak English in English class”*
5. *“I don’t feel pressure to prepare very well for English class”*
6. *“When I am on my way to english class, I feel very sure and relaxed”*
7. *“I would probably feel comfortable around English native speakers”*

These items are good predictors in measuring students’ intended effort to learn English.

To answer the question on how language anxiety, motivation and intended effort are connected in students in the South Bengkulu Regency (third research question), a structural model was built and tested using the items above. It revealed, that lower levels of anxiety are related to higher levels of motivation and a greater willingness to put effort into learning English. At the same time, higher motivation leads to more effort being made to learn English. Therefore, anxiety may have two pathways to influence student performance, first by inhibiting motivation, and second by lowering the learning effort. Further research is needed to establish the full impact of anxiety on English Language performance. As already mentioned, the model showed a good model fit after modification and elimination of redundant items and factors. Therefore, in response to the research question on whether the proposed model is adequate, this can only be partially confirmed. However, the study was successful in building an improved valid model of the relationship between language anxiety, motivation and intended effort.

Overall, MOT_1 and ANXF1 show excellent psychometric characteristics for use in students aged 16- 17 years. In other words, students who give a minimum score of 4 (scale 1 - 5) for each of the items mentioned above can be expected to put more effort into learning English and thus improve their performance.

This study was conducted with relatively small number of participants relative to the number of high school students in South Bengkulu. Further research can extend the number of participants involved in the study. The English proficiency of the participants can also be controlled to find out whether certain levels are more anxiety provoking than others. So, by taking account of this variable,

hopefully the future study can be more crystal clear about relationships between motivation, anxiety and intended effort.

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