CORRELATION OF LEARNING MOTIVATION BASED ON ARCS MODEL WITH ENGLISH ACHIEVEMENT OF MIDWIFERY STUDENTS

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ABSTRACT

This research aimed at analyzing the correlation between learning motivation and the English achievement of Midwifery students. The research was conducted at Midwifery Academy of Harapan Mulya Ponorogo, East Java, Indonesia. The respondents were 39 students. Data were collected through motivational questionnaires adopted from the ARCS Keller's model, namely Course Interest Survey (CIS), and Instructional Materials Motivation Survey (IMMS). The English achievement was obtained from the score of the final exam with the correlation analysis used was Pearson Product Moment. The result of the statistical test of the correlation between learning motivation based on students' perception of the Instructor-led instruction and English achievement showed the level of significance that was 0,008<0,05 with coefficient correlation 0,431. The correlation of learning motivation based on students' perception toward instructional materials with English achievement showed the correlation coefficient that was 0,349 with significance level 0,029<0,05. The result shows that there is a significant correlation between learning motivation and English achievement. The researchers suggest that the lecturers improve the motivation of students' learning through improving lecturers' competencies in teaching, using appropriate learning methods, and teaching materials that are in accordance with the field of student interest in learning.

Keywords: learning motivation, ARCS model, English achievement

INTRODUCTION

English is one of the subject matters taught in midwifery academy. Although it is not a part of the core curriculum at the Midwifery program, it is taught in almost of higher education in Indonesia. The higher education must be able to facilitate their graduates in meeting the demands of qualification in entering competitive and globalized employment; one of which is the ability in English. English becomes one of the courses that have a significant role. By mastering this international language, it will be easier to communicate in writing and orally in the global community. English language skills for students, especially midwifery students, are becoming increasingly important in relation to the efforts of the Indonesian Midwives Association as a professional organization that has the responsibility to have skillful midwives. The vision of the Indonesian Midwives Association is becoming a professional midwife with a global standard (IBI, 2013). The Indonesian Midwives Association also stress the importance of English, as stated in the strategic plan 2014-2018 and the work plan. One of its work programs is to collaborate with language education institutions to carry out English training for midwives and midwifery students.

The midwife has an important task in health counseling and education, not only for the woman but also within the family and the community. The professional midwives with the global standard as the vision of the Indonesian Midwives Association will not be realized if they do not have competency in midwifery scope and English competency. Therefore, in the learning process, it requires competent lecturers in managing class, the lecturers who can motivate students, and able to design appropriate instructional materials.

Motivation is one of the most important factors that will influence students' English achievements or performance (Kurt & Kecik, 2017). It has a strong relationship with students' success or failure in English teaching. Teachers must pay more attention to this aspect. Motivation comes intrinsically and extrinsically. The intrinsic motivation

comes from the students; meanwhile, extrinsic motivation is stimulated from the environment such as teachers, other students, learning process, instructional materials, and so on. Motivation plays a vital role in English teaching, not only aptitude but also intelligence (Zhang, 2015).

Based on a preliminary study conducted at Midwifery Academy of Harapan Mulya Ponorogo through an interview to some students, it is known that the academy has not conducted a survey to measure their motivation toward English teaching and learning materials. It is also known that according to the students, they join English class only for passing the examination, and the learning process is held by using general English materials that are taught by teacher-centered learning. Students' feedback about their motivation should be used to improve the learning process and students' achievement. The students need English learning materials that is in line with their discipline, midwifery. They want to apply their English after graduating from the academy.

The researches about motivation have been conducted in schools and higher educations. In accordance with instructional materials to motivate students, the research by Kember (2016) has shown that motivational engagement is affected by instructional materials' type, content, and characteristics, as well as individual and group factors within the classroom. Meanwhile, Sundari and Rachminingsih (2015) have concluded that the successful English teaching is influenced by some components, such as students, teachers, instructional materials, the relationship among students, and the relationship among teacher and students. The teachers can be a motivator, decision-maker, navigator, facilitator, and researcher. The key factor is the students' motivation, as it determines the learning process and indirectly influences the quality of foreign language proficiency.

It is very important that foreign language teachers must recognize their students' most prominent motivational features by observing their students' classroom behavior. Teachers should be able to consider these features in lesson planning and actual teaching activities while at the same time, they should become aware of the students' developmental features and their language competencies.

Students' motivation could possibly be influenced by the nature of the curriculum and teaching. Kember (2016) has suggested paying more attention to eight elements, to provide a teaching and learning environment conducive to motivating students. The eight elements are (1) establishing interest, (2) allowing choice of course so that interest can be maintained, (3) establishing relevance, (4) learning activities, (5) teaching for understanding, (6) assessment of learning activities, (7) close teacher-student relationship, and (8) some of belonging between classmates.

Kurt and Kecik (2017) have argued that to explore students' motivation, it can use the Instructional Materials Motivation Survey (IMMS) and Course Interest Survey (CIS). The ARCS model, according to Keller, has four essential strategies for motivation instruction. They are; (1) the attention strategy is for arousing and sustaining curiosity and interest; (2) the relevance strategy is to link learners' needs, interest, and motives; (3) the confidence strategy is to help students develop a positive expectation for successful achievement; (4) the satisfaction strategy is to provide extrinsic and intrinsic reinforcement for effort. The ARCS motivational model covers different aspects of teaching and allows students to participate actively during the learning and teaching process. Khalil and Elkhider (2016) have said that the ARCS learning-motivational model is not only offering a framework of motivation but also intended to provide the sequence of operations to stimulate students learning motivation. The first is to arouse their attention and interests of the given task. Next step, they must know these tasks closely related to themselves. Then, learners should own confidence that they have enough ability to accomplish the tasks successfully. Finally, they can experience a sense of recognition and achievement after fulfilling the tasks. It makes satisfaction with themselves that will be motivated to begin a new task.

Based on these explanations and researches, it can be concluded that the motivation of students in learning English can be affected by some factors, such as teaching materials and instructional process. This research aims to; (1) describe students' motivation based on the instruction, (2) describe students' motivation which is stimulated by teaching materials, (3) describe students' English achievement, (4) analyze the correlation between students' motivation based on instructor-led instruction and students' English achievement, and (5) analyze students' motivation based on their reaction to self-directed materials with students' English achievement.

METHODS

This research design is an inferential study. It is a type of quantitative research that involves making a careful description of educational phenomena. The descriptive statistics involves the description of scores on a single variable. Meanwhile, the correlation statistics describes the relationship between two or more variables (Gall, Gall, & Borg, 2007). There are two independent variables and a dependent variable. The independent variables are the motivation of students in learning English based on their perception of instructor-led instruction, and students' motivation based on their perception toward instructional materials. The dependent variable is the students' English achievement. The research is designed to correlate students' motivation during instruction with students' English achievement and to correlate students' motivation based on instructional materials perception with students' English achievement. The research is conducted in Midwifery Academy of Harapan Mulya Ponorogo, East Java, Indonesia. In this research, the population research is 39 students of the third semester of the midwifery academy.

The instruments of this research are questionnaires on motivation and final score documentation of students. The instruments used are being developed by researchers from the ARCS model that is tested its validity and its reliability. The motivation of students based on their perception instructor-led instruction is measured by questionnaire adopted from Course Interest Survey (CIS) by Keller. The CIS has 34 items with approximately equal numbers in each of the four ARCS categories. The response scale ranges from 1 to 5. This means that the minimum score on the 34 items survey is 34, and the maximum is 170.

The motivation of students based on their perception about instructional materials is measured by questionnaire adopted from the Instructional Materials Motivation Survey (IMMS). The IMMS has 36 items. The relevance and confidence subscales both have nine items, the satisfaction subscale has six items, and the attention subscale has 12 items. The response scale ranges from 1 to 5. This means that the minimum score is 36, and the maximum score is 180. The English achievement data are collected through

the score of English final examination.

The respondents are given two types of questionnaires, namely CIS and IMMS. After giving a response to the questionnaires, the researchers collect the questionnaires, coded, tabulated, and scoring the data. Data of each variable are analyzed and presented descriptively by using descriptive percentage formula. The data of each variable are categorized into five categories: very high, high, enough, low, and very low category.

The hypothesis is formulated to guide the research that is tested at the 0,05 level of significance. The null hypothesis statement is "there is no correlation between learning motivation based on ARCS Model and students' English achievement." A test of statistical significance is done to determine whether the null hypothesis can be rejected. The correlation of the independent variables and dependent variable are analyzed by the Pearson Product Moment.

RESULTS AND DISCUSSIONS

Table 1 shows the students' motivation during instruction. It is known that the majority of students' perception of instructor-led instruction are highly motivated. The data reflects that the English teaching at Midwifery Academy of Harapan Mulya Ponorogo runs well. The teacher has an excellent competency to motivate their students during class. This research also indicates that a teacher is an important person in English Foreign Language teaching.

Table 1 Frequency Distribution and Category Reliability of Students' Learning Motivation based on the ARCS Model by Using CIS (Course Interest Survey)

No	Range of Score	Category	Frequency	Percent
1	137-170	Very High	1	2,6
2	103-136	High	34	74,3
3	69-102	Enough	4	23,1
4	35-68	Low	0	0
5	1-34	Very low	0	0
	Total		39	100

Based on Table 1, it shows that students' motivation in learning English which is stimulated by the instructor-led instruction is 4 (23,1 %) students have enough motivation, 34 (74,3 %) of students have high motivation, and 1 (2,6 %) student has very high motivation.

Teachers have different roles in class. As the motivators, they have to motivate the students to learn, while as the materials developers, they should able to create learning materials based on need analysis. Burns and Siegel (2018) have said in order to create an innovative teaching class, not only because teaching approaches which are implemented by the teachers, but also teachers have the courage and persistence to think creatively and initiate or extend teaching strategies. For instances, in teaching writing, it is needed a creative teacher and creative learners. The selection of an appropriate approach in the process of teaching and learning affects the students' achievement and

behavior (Indrilla, 2018). Strategy use in learning English is a stronger predictor of English language achievement (Afshar, Sohrabi, & Mohammadi, 2015).

Learning motivation is a kind of driving force that can motivate students' learning. Actually, it is a need for learning that reflects the objective requirements of the school and society for students' learning in the minds of the learners (Khalil & Elkhider, 2016). Motivation has a vital role in English teaching (Zhang, 2015). Unmotivated students in English class should be minimized, and the teacher should manage the classroom well, and maintaining the motivation students by applying appropriate teaching method. Keller's motivational model and its components; attention, relevance, satisfaction, confidence (ARCS), provide the model to address the relationship between student motivation, student interest, and using technology to interact in the classroom.

Table 2 Frequency Distribution and Category of Students' Learning Motivation Based on the ARCS Model by Using IMMS (Instructional Materials Motivation Survey)

No	Range of Score	Category	Frequency	Percent
1	145 - 180	Very High	0	0
2	109 – 144	High	11	28,2
3	73-108	Enough	28	71,8
4	37-72	Low	0	0
5	1-36	Very low	0	0
	Total		39	100

Table 2 shows students' motivation toward self-directed instructional materials. Based on Table 2, it is known that students' motivation in learning English which is stimulated by instructional materials are 28 (71,8 %) students in enough category, and 11 (28,2 %) students have high motivation.

Students' learning motivation toward instructional materials suggests that the instructional materials should be developed (Johnson, 2015). Teaching materials which are used in the Midwifery Academy of Harapan Mulya Ponorogo are English for General Purposes. The teacher should change and develops the instructional materials into English for Specific Purposes. Gestanti, Nimasari, and Mufanti (2019) have said that General English is considered no longer suitable, and it should be specified for certain purposes. In this matter, English for midwifery purposes gives chances for students and teacher to define the outcomes based on their purposes by considering their needs.

English teaching materials should appropriate for the students' need. Developing instructional materials in English for Specific Purposes hold an important role in the learning process, in fostering students at specific knowledge discipline. Canniveng and Martinez (2014) have concluded that materials are a central feature for the achievement of successful language learning. Zohoorian (2015), in relation to the theory of the ARCS motivational model, believe that instructional design has a significant role in increasing students' motivation. According to Zohoorian (2015), by establishing interest and relevance and improving the learners' satisfaction for instructional materials, it is possible to promote students' motivation.

Teachers' competency in writing and developing English learning materials should be improved. According to Njoku (2015), the materials are categorized under visual and audio materials which should be harnessed to make the teaching lively and interesting. Type of learning materials is also influenced by the English skill of students. Isazadeh, Zadeh, and Ansarian (2016), in their research, have found that authentic video materials and instructional materials have a positive impact on vocabulary learning of Iranian EFL learners.

The finding implies that teachers should improve their competency simultaneously, specifically in developing English learning materials, including speaking, writing, reading, and listening materials. Need analysis should be conducted before writing an appropriate English learning material, specifically English for Specific Purposes materials. Yundayani, Emzir, and Rafli (2017) have suggested to the teachers who want to write English materials for academic purposes in order to write easy and understandable for the students, and the method and techniques which are implemented to instructional material must empower the students to practice. Need analysis should be the foundation in designing the learning materials. English teacher of Midwifery Academy of Harapan Mulya Ponorogo should write an appropriate learning material which is in line with the field interest of students. English for midwifery purposes should be taught to increase students' motivation, and finally improving the students' achievement.

According to Barnard and Zemach (2014), the writer of materials for specific purposes should have linguistic knowledge of English, have teaching experience, and have experience and interest to the specialization, have writing experience English for General Purposes, be able to cooperate with others, and have an ability to assess the clarity and the effectiveness of instructional materials. Meanwhile, Lathif (2017) has stated that there are six factors influencing learners' motivation for English Foreign Language learners in writing class. They are institutional demands, linguistic needs, enthusiastic and inspiring teachers, engaging activities and tasks, interesting topics, and positive learning atmosphere. Related to this research, enthusiastic and inspiring teachers, engaging activities, and interesting topics influence students' motivation. It is because they are related to teachers' competency in teaching, and learning materials which are used in the teaching and learning process.

Table 3 shows descriptive analysis and frequency distribution of English achievement of midwifery students in Midwifery Academy of Harapan Mulya Ponorogo.

Table 3 Descriptive Analysis and Frequency Distribution of English Achievement

Score		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	60	4	10,3	10,3	10,3
	65	4	10,3	10,3	20,5
	67	1	2,6	2,6	23,1
	70	10	25,6	25,6	48,7
	75	13	33,3	33,3	82,1
	80	7	17,9	17,9	100,0
Total		39	100,0	100,0	

Based on Table 3, it indicates that majority students have good achievement. There are 13 respondents (33,3%) get 75 score, 10 respondents (25,6 %) get 70 score, 7 respondents (17,9%) get 80 score, 1 respondent (2,6%) gets 67 score, 4 respondents (10,3%) get 65 score, and 4 respondents (10,3%) get 60 score.

The good students' competency in English can be influenced by some factors such as teachers' competency, students, learning process, and others. Muho and Dangli (2014) have said that there are six contextual elements that influence students' motivation to learn, such as curriculum, pedagogy, peer culture, assessment practice, home support, and school ethos. In the learning process, the biggest influence on students' motivation is the teacher. El-Omari (2016) has also said that there are some factors that in influence achievement of students in learning English, such as attitudinal factor, social, socioeconomic, and extracurricular factor.

Table 4 shows that there is a correlation between motivations during instruction with students' achievement. The finding emphasizes the importance of motivation to reach a good achievement. The teacher and student should be aware of it if they want to gain successful teaching and learning in English. The result of the research is supported by the previous result by Becirovic (2017) that motivation has a correlation with achievement. It can be highly beneficial for teachers, parents, and students in adopting the most effective approach to teaching and learning English as a foreign language. Another research by Solak and Cakır (2015) have also found that motivation is the strongest effect on achievement.

Table 4 Statistic Test Pearson Product Moment between Learning Motivation based on Their React to Instructor-Led Instruction and English Achievement

		Learning Motivation based on CIS	English Achievement
Learning Motivation based on CIS	Pearson Correlation	1	0,417**
	Sig. (2-tailed)		0,008
	N	39	39
English Achievement	Pearson Correlation	0,417**	1
	Sig. (2-tailed)	0,008	
	N	39	39

**. Correlation is significant at the 0,01 level (2-tailed).

Based on Table 4, it is known that the significance level is 0,008 less than 0,05. The correlation coefficient is 0,417. It means that there is a correlation between learning motivation during the instruction and English achievement of midwifery students.

Referring to Table 5, the result of the research study also implies that there is a correlation between learning motivation and students' English achievement. There is a correlation between students' react to instructional materials with students' English achievement. Mosha

(2014) has supported the findings that factors affecting students' performance in English are the shortage of English teachers, the absence of teaching and learning materials, teachers'' responsibilities, large class size, poor conducive teaching, and learning environment in the classroom. The several factors participating student in English class are the learning environment, the teachers, the technique, and the materials. Based on Salehi et al. (2015), it is concluded that learners and instructors' attitudes towards English as the second language and foreign-language play a vital role in the success of any language course. By knowing their attitudes towards the content of the textbooks, book editors, and syllabus designers have a better understanding of what should be included in the textbooks based on learners and instructors' need. Supporting the result of these research findings, Suryasa, Prayoga, and Werdistira (2017) have said that student with adequate motivation will become efficient language learners with ultimate language proficiency.

Table 5 Statistic Test Pearson Product Moment between Learning Motivation and English Achievement

		English Achievement	Learning Motivation Based on IMMS
English Achievement	Pearson Correlation	1	0,349*
	Sig. (2-tailed)		0,029
	N	39	39
Learning Motivation Based on IMMS	Pearson Correlation	0,349*	1
	Sig. (2-tailed)	0,029	
	N	39	39

*. Correlation is significant at the 0,05 level (2-tailed).

Based on Table 5, it is known that the Pearson correlation is 0,349, and the significance level is 0,029. Because the significance level is less than 0,05, it means that there is a correlation between learning motivation based on students perception toward instructional materials with students' English achievement.

The findings of this research are evidence that developing successful English language teaching needs the cooperation of teachers, students, parents, to build students' motivation simultaneously, and finally, students' achievement will be improved. Khalil and Elkhider (2016) have suggested to the teachers who are interested in advancing the education must have developed competence and understanding of educational theories and the science of instruction.

CONCLUSIONS

Based on the research findings, the researchers conclude that students' motivation in learning English based on instructor-led instruction are in the high category. Most of students' motivation in learning English, which is stimulated by instructional materials fall within the fair category. The

English of midwifery students has a good achievement. There is a correlation between students' learning motivation during instruction and the English achievement, and there is a correlation between students' learning motivation based on their reaction to instructional materials with English achievement of midwifery students.

The researchers suggest to the teacher to improve their teaching skill, applying active learning, designing English teaching materials as the students' need, and implementing English for Specific Purposes, specifically English for midwifery purposes. The ARCS motivational model can be used to design and develop the teaching method to stimulate students learning motivation and to develop learning materials. Those activities aim to increase students' motivation that will affect students' achievement.

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