Level of Learning Motivation Student Based on ARCS Model on Geographic Subject

M M Jamil¹, E Ningrum², A Yani²
¹Postgraduate School, Universitas Pendidikan Indonesia, Jl. Dr. Setiabudi 229, Bandung 40154, Indonesia
²Department of Geography Education, Universitas Pendidikan Indonesia, Jl. Dr. Setiabudi 229, Bandung 40154, Indonesia

*mekka.mj@gmail.com

Abstract. Motivation is one of the factors that participate in determining learning outcomes. Motivation that comes from within the learners is often a neglected aspect of the learning strategy. The problem is how the level of learning motivation student on geography subjects at Sumur Bandung Islamic Boarding School based on attention, relevance, confidence, and satisfaction. The method used in this research is survey method. The sample consisted of 180 students selected from Social Science Class using stratified sample technique. The variables in this study are learning motivation that is limited to attention, relevance, confidence, and satisfaction. The instrument used is a standard IMMS questionnaire applied from the ARCS learning motivation design. This research shows that the learning motivation level of student based on ARCS model on geography subject is quite high. Based on the results of research confidence to be one part in the motivation to learn that needs to be improved. Confidence can be influenced by external and internal factors. To improve the motivation to learn, student need a balance between factors Attention, Relevance, Confidence, and Satisfaction.

1. Introduction
Learning is a system that consists of several components that interact with each other. The components include teachers, students, methods, media, materials, approaches to learning concepts and evaluation tools. Between components functionally influence each other for the achievement of learning objectives. Learners are the implementers of the learning process have several supporting factors for the achievement of learning goals [1]. Learning achievement of students is an object that is measured at the level of success of learning objectives through the standard values achieved. In the material learning process as one component related to students. Material is one of the prerequisites in the learning process through the established curriculum. One of the existing materials is Geography subjects.

Geography is one of the subjects that must be followed by students of the Social Sciences class in scientific learning that are being applied in Indonesia. Indonesia scientific learning is recommended for use in every subject and at all levels of education through the Minister of Education and Culture Regulation No. 22 of 2016 concerning the Standard Process for Primary and Secondary Education [2]. Geography is one of the subjects tested in the National Examination. Geography provides knowledge about the similarities and differences of geosphere with environmental or regional perspectives in a spatial context. The knowledge given in Geography learning is about environment realities around the
students. The results in Geography learning related to student activities are learning achievements. Learning achievement as learning outcomes of students is realized in the form of grades or numbers, through tests or evaluations. National Examination Results are one of the indicators that are often used to see the quality of educational outcomes from students' achievements. Based on Statistics the Graduation Achievement of the IIS National Examination Program at the Profile of the Bandung Sumur Foundation for Geography Subjects still occupies a lower average score than other subjects. The data obtained from the 2015 to 2017 school year is quite diverse [3].

| Program   | Subjects  | 2015 | 2016 | 2017 |
|-----------|-----------|------|------|------|
| Social Sciences | Indonesian | 7.50 | 7.75 | 8.03 |
|           | English   | 7.38 | 7.42 | 7.46 |
|           | Mathematics | 7.84 | 7.78 | 7.02 |
|           | Economy   | 7.79 | 7.82 | 7.72 |
|           | Sociology | 8.14 | 8.32 | 8.50 |
|           | Geography | 6.45 | 6.64 | 6.95 |

*Source: Profile of the Sumur Bandung Foundation [3]*

Table 1 shows that the results achieved in Geography subjects are lower than other subjects. There are several factors that become obstacles to learners in learning. On the factors that participated determine the learning outcomes, both those from students and those from the learning component. Student factors such as motivation, intelligence, and concentration. Motivation is the most often neglected aspect of the learning strategy. Motivation is one of the most important prerequisites in learning [4]. If there is no motivation, the learning process will not occur. Motivation can affect learning processes and outcomes. Motivation to learn is an internal ability that is formed naturally which can be improved or maintained through activities that provide support, provide opportunities to choose activities, provide responsibility for controlling the learning process and provide useful learning tasks and according to personal needs [5].

Learning is a process of interaction between students and their environment, which causes changes in themselves. Learning activities are influenced by a condition, both internal and external. A very strong internal influence in achieving learning goals is Interest. With a strong interest in learning, it will be easy to achieve learning goals. In this case interest is included in the element of motivation in the ARCS Motivation Model [6].

ARCS is a learning model with instructional design developed by Keller and focused on motivation. Basically, this model is a development of a motivational model of contemporary motivation theory. Contemporary motivation theory consists of Need Theory According to McClelland, Cognitive Evaluation Theory, Objective Determination Theory, ARCS Motivation Model Theory, and ARIAS Motivation Model Theory.

Contemporary Motivation Theory is the development of Theory X and Y developed by McGregor [7] that focuses on motivating employee performance, and each of these theories keep pace with the Needs Hierarchy Theory as a basic theory of motivation coined by Maslow [8]. This ARCS motivation model was found and published in 1987, ARCS stands for interest / attention (Attention), relevance (Relevance), confidence / confidence (Confidence), satisfaction / pride (Satisfaction) and into four categories that represent various motivational characteristics that exist in each individual.
The basic model for design of Learning Motivation ARCS is a problem analysis of students' motivation based on subjects, in which there are four categories that become strategies in the design of ARCS motivation; (1) Interest / Attention of students to subjects in building curiosity and continuous attention, (2) Relevant / Relationship to connect the Subject with the motives and interests that students need from the learning, (3) The expectations of students from these subjects in building confidence with motivation for success, (4) Satisfaction learners from the learning process in these subjects to manage intrinsic and extrinsic reinforcement [9].

ARCS model is very important for education, especially distance education, or reviewing students motivation in the learning process, because motivation is a key factor that determines whether students complete their training [10]. This model focuses on extrinsic motivation and is developed to encourage intrinsic motivation in students. The ARCS model is also used as a design guide to develop effective motivation strategies.

The ARCS model is used in each study on learning motivation, this is because ARCS is a world patented learning motivation model of scientific research, with an IMMS (Instructional Materials Motivation Survey) measurement tool for survey research and CIS measurement tools (Course Interest Survey) for experimental research, where the substance of questions in IMMS has been designed based on the specific motivational components in the ARCS motivation model, but the phrases contained in each category can be changed according to need. Of the many indicators in the assessment of Learning Motivation, ARCS collect the whole on the basic things and represents the problems of learning motivation in four categories so that it is simpler in the point of measurement, namely interest/attention, relevance, confidence/confident (Confidence), satisfaction/pride (Satisfaction) [11].

There are two choices of research categories in the ARCS Model, first the ARCS Model as a set of categories that have a motivational component. This category is the result of synthesis of research on human motivation in which there is a modification of the subcategory of the ARCS motivation model, research in this category is focused on students with a certain set of measurement tools to produce the level of learning motivation of students. Secondly, the ARCS Model is a process of systematic design that helps in creating motivational enhancements that are suitable to be given to students in which there are identification of various elements of student motivation as well as a design process that helps to profile / characterize students' motivation in the learning environment. Research in this category involves students and teachers with certain methods and sets of measuring instruments from the ARCS model to produce motivational tactics that are suitable for students based on students' level of learning motivation [12].

The research on students' learning motivation in Geography subjects and choosing the first category for this study in order to obtain the level of learning motivation of students, so the problems that arise in the teaching and learning process can be anticipated and the solutions can be sought. In this case, the researcher raised the title of the study "The Level of Learning Motivation of Students Based on the ARCS Model on Geography Subjects at the Bandung Well Islamic Boarding School". The objectives of this research is to analyze the level of learning motivation of students in Geography Subjects based on interests (Attention), relevance (Relevance), confidence (Confidence), and satisfaction (Satisfaction).

2. Methods

The method used for this research is survey method. Data and information are collected from respondents using IMMS questionnaires / questionnaires. After the data is obtained, the results are presented descriptively. The population in this study were all classes of Social Sciences and Bandung Islamic Boarding School students. The number of Social Sciences classes in this school is 9 classes. Consists of 4 class X IIS, 4 class XI IIS, and 4 class XII IIS. In determining the sample, the class that will be used as the place for distributing the questionnaire is first selected. All existing classes are classified into two class groups; IIS X class and IIS XI class. To be able to describe the population, 3 classes are taken from each class. This is done because of several considerations, that the class chosen for each cluster contains the most characteristics of the population (key subjects). On this basis, the researcher determined the determination of the key sample of 180 students from 6 classes as respondents.
with an equal distribution for each class of samples divided into two clusters. Consisting of 90 people in class X IIS and 90 people in class XI IIS with the assumption that respondents are homogeneous and represent each class that is sampled. In this study class XII was not involved as respondents. Class XII is facing the National Examination and School Exams. Thus, it is assumed that students are well motivated.

Data analysis uses univariate analysis based on criteria and conditions, known as Instructional Materials Motivation Survey (IMMS) [12]. IMMS is designed to measure students’ motivation towards a subject learned. IMMS consists of 36 questions by grouping items based on positive and negative criteria. The substance of the questions in IMMS has been designed based on specific motivational components in the ARCS motivation model (Attention, Relevance, Confidence, Satisfaction) but the phrases contained in each question can be changed according to need. Data is presented in narrative form, frequency distribution table using the 2013 version of Excel software.

The study was conducted at the Sumur Bandung Islamic Boarding School Private High School which is located within the Bandung Development Boarding School Islamic Boarding School on Jl. Raya North Cililin no 52 Cililin District West Bandung District. Geographically the location of SMAS Sumur Bandung borders:

a. East of the border is RSUD Cililin
b. The south borders Kampung Cintakarya
c. North of the border is Kampung Nunuk
d. West of the border is the Village of Budiharja

3. Result and Discussion

Sumur Bandung Islamic Boarding School is one of the schools with a full day school system and boarding school. Students get learning and activities in one full day at school. The location of the school is close to the dormitory where students live, although students still discipline to not return to the dormitory during school hours. The school location is not in the city center or near the highway so it does not interfere with the activities and concentration of students’ learning.

Sumur Bandung Islamic Boarding School has several school level programs ranging from the Learning Group (KOBER), Islamic Kindergarten (Islamic Kindergarten), Islamic Primary School (Islamic Elementary School), Junior High School and Madrasah Tsanawiyah (SMP / MTS), Middle School Top and Madrasah Aliyah (SMA / MA). Upper Middle Class consists of Social Sciences (IIS) and Natural Sciences Mathematics (MIA) programs. This study focuses on the upper secondary level (SMA / MA) of the Social Sciences (IIS) class which consists of 12 classes with a total of 360 students for the Social Sciences class. However, researchers randomly selected 180 students from two social science class clusters namely IIS X class and IIS XI class.

3.1 Learning Motivation Level Based on Attention (Interest / Attention)

Students’ statements regarding interest / attention (Attention) are contained in the IMMS questionnaire. The number of items in the Attention statement is 14 questions consisting of 9 positive statement items and 5 negative statement items. Attention variables relate to students’ interests / concerns (in this case in Geography subjects). Counting result shows that this variable is in a fairly good category range (2.50-3.49) with a value of 3.29. Thus, the level of learning motivation of students based on interest / attention (Attention) in Geography subjects is quite good. Nevertheless, the interest of students in Geography subjects must still be improved and maintained especially during learning activities [13].

3.2 Learning Motivation Level Based on Relevance (relevance)

Students’ statements regarding relevance (Relevance) are contained in the IMMS questionnaire. The number of items in the Relevance statement is 7 questions consisting of 6 positive statement items and 1 negative statement item. Relevance / relevance that is related to the lives of students either in the form of current experience or that has been owned or that relate to current or future career needs. This variable
is in a fairly good category range (2.50-3.49) with a value of 3.48. Then the level of motivation of students on Geography subjects based on their relevance is quite good. In this case it means that students feel the learning activities are valuable and useful for their lives in good enough condition. But to improve and maintain the motivation, the relevance must be performed improvinly by the teachers [14].

3.3. Learning Motivation Level Based on Confidence (confident / confident)

Students’ statements regarding confidence / confidence (Confidence) are contained in the IMMS questionnaire. The number of items in the Confidence statement is 8 questions consisting of 4 positive statement items and 4 negative statement items. Although it is in the same category range that is quite good (2.50-3.49), of the four variables that exist, the Confidence variable has the lowest value among the other variables, namely 3.21. Confidence relates to an individual's attitude to success and failure. However, the level of learning motivation of students on Geography subjects based on self-confidence is quite good. This can show a picture of the attitude of confidence that students feel when studying Geography subjects. Lack of confidence in students can be caused by various conditions, including environmental conditions, intelligence capabilities, physical conditions, ideals that are not relevant to related subjects, inadequate facilities for self-actualization [13].

3.4. Level of Motivation Based on Satisfaction (satisfaction / pride)

Students' statements regarding satisfaction / satisfaction (Satisfaction) are contained in the IMMS questionnaire. The number of items in the Satisfaction statement is 7 items. The results of are shown the highest value of the other four variables, that is 3.63 with a good category range (3.50-4.49). This satisfaction / pride is one of the important things to maintain motivation. If the students' business results are in line with their expectations and if students feel happy about the results obtained, then they may continue to be motivated to be involved in the learning process [13]. Thus, it is known that the learning motivation based on satisfaction and pride in the subjects of Geography is good. The following is the combined value of the four learning motivation variables of students.

| No. | Value          | Category  | F  | %   |
|-----|----------------|-----------|----|-----|
| 1.  | 1.00-1.49      | Not Good  | 0  | 0   |
| 2.  | 1.50-2.49      | Less Good | 1  | 0.5 |
| 3.  | 2.50-3.49      | Quite Good| 107| 59.5|
| 4.  | 3.50-4.49      | Good      | 72 | 40  |
| 5.  | 4.50-5.00      | Very Good | 0  | 0   |
|     | Total          |           | 180| 100%|

Source: Research Result 2018

Based on the table 2, the learning motivation of students based on the combined values of the four ARCS variables in Geography subjects at the Sumur Bandung Islamic Boarding School majority are in the pretty good category as many as 107 respondents (59.5%). While the good category is 72 respondents (40%) and the poor category is 1 respondent (0.5%). For more details, see the following picture:
After describing the results of each variable, the average value of each variable is combined and averaged again. This is to get the level of learning motivation of students based on the ARCS model on Geography subjects at the Bandung Well Islamic Boarding School. After calculating, it is known that the level of learning motivation of students based on the ARCS model on Geography subjects at the Bandung Well Islamic Boarding School is in a fairly good category (2.50-3.49) with an average value of 3.41. This is based on the results of the study of the four existing variables (Attention, Relevance, Confidence, Satisfaction). For more details can be seen in the table below:

| Category         | Attention | Relevance | Confidence | Satisfaction |
|------------------|-----------|-----------|------------|--------------|
| Learning Motivation Level | 3.48      | 3.34      | 3.21       | 3.63         |
|                | Quite Good| Quite Good| Quite Good | Good         |

*Source: Research Results 2018*

The data contained in the table above can be seen in the picture below:

**Figure 1. Combined values of all four variables, ARCS**

3.5. **Level of Learning Motivation for Students Based on the ARCS model**

Learning motivation is one of the factors that can improve student learning achievement. But motivation is an internal factor of students who need external stimulus, that is the environment. In this case teacher plays a direct role to increase students' learning motivation, especially in interest (attention), relevance, confidence, and satisfaction. The level of learning motivation of students based on the ARCS model on Geography subjects at the Islamic Boarding School Sumur Bandung is quite good. This can be seen
from the acquisition of values based on the calculation of the four existing variables (Attention, Relevance, Confidence, Satisfaction) with an average value of 3.41 and a fairly good range of categories is 2.50-3.49.

The Attention of students in this Geography subject is quite good with an average value of 3.34 and must still be improved and maintained. Especially during learning activities. The relevance is quite good and delivered by each teacher must still be improved with an average value 3.48. The confidence of students is quite good with an average value of 3.21. Although it is in a range of categories that are almost the same as other variables, which are quite good. However, of the four variables that exist, Confidence has the lowest value among other variables, both in the State High School, all or based on the sample school and cluster. The satisfaction is good with an average score of 3.63 and the highest value among the three other variables. Nevertheless, Satisfaction in learning both in the form of teaching methods or other ways still needs to be improved in order to increase learning motivation in students. This is because success and pride become reinforcement for students to achieve the next success.

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