

Geography Learning: Teacher Understanding About Advance Materials

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Abstract. Abstract. Geography learning is learning that implements the subject matter with more contextual and interesting real-case examples. So geography educators are required to be prepared to manage to learn pedagogically and contextually. This can be achieved by efforts to improve the abilities of geography educators based on advanced materials. This research was conducted to determine teachers' understanding of advanced material in geography learning using a case study approach in SMA/MA throughout Polongbangkeng Utara District, Takalar Regency. The results showed that the dominant understanding of advanced material was in the fairly good category (46.88%). Geography teachers must get used to conducting scientific discussions to improve interpersonal intelligence which in turn will have a positive effect on improving the quality of learning according to what is needed by student.

1 Introduction

The teacher is the main actor in the success of the educational process. Teachers must be role models for their students [1], [2]. The teacher's task is to maintain, direct, and guide so that students grow and develop according to their potential, interests, and talents [3]. The role of the teacher as a manager in carrying out learning is the process of directing students to carry out learning activities in the framework of changing behavior (cognitive, effective, and psychomorphic) toward maturity [4]. Professional teachers have a role in educating, teaching, guiding, directing, training, assessing, and evaluating students.

Competent teachers have an interest in student learning, including understanding students, planning and conducting learning, assessing learning outcomes, and developing students to realize their diverse potential [5]. In the context of geography subjects, a teacher needs to have knowledge of geography and be able to explain all the phenomena that occur [6]. In the learning process, students are expected to be able to understand the material and have an impact on the achievement of student learning outcomes [7].

Effective teachers are better able to manage their classes so that their students achieve optimal learning outcomes. The teacher's ability to apply subject matter competencies is divided into eight parts: comprehension of the material, ability to start the lesson, ability to ask questions, ability to change the subject, clarity of presentation of the material, ability to manage the class, competence, and closing. can be separated. Accuracy between lessons, times and topics [8]. An ideal geography teacher must fulfill at least five demands, namely (1) having a lot of attention to human problems, (2) having the ability to discover for

themselves local factors, regional patterns, and spatial relations contained by, or hidden behind social phenomena, (3) likes and can make personal observations in the field, (4) can simply synthesize data originating from various sources, (5) able to distinguish and separate real causality from things that are just a coincidence [9].

In learning geography, teachers are required to link the subject matter of learning with more contextual examples so that students will get an overview of integration in the acquisition of learning outcomes [10]. Contextual understanding can improve student learning outcomes in achieving learning objectives (understanding of subject matter) that are relevant or relevant to them and meaningful in their lives [11]. Geographical thinking will be beneficial for the education of students, on the other hand in the hands of teachers who are not specifically trained to teach geography, what they present can become blurred or confuse students.

Geography has a characteristic in studying the relationship between humans and nature by trying to understand the relationship between the two through an understanding of place and location [3]. Advanced material is an advancement of existing material, as opposed to required material, which still exists in the form of basic, critical, or basic knowledge in the form of topics that students need to understand. [12]. Seen from a practical point of view. The step of a teacher in teaching complex material is to recognize the essential material.

Based on the results of the initial observations of researchers conducted in this study, it resulted in the fact that: 1) there are still many geography teachers who do not meet the ideal criteria, it is necessary to increase

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competence through enhanced guidance by reading, discussing, and increasing sensitivity to their area so that teachers can integrate learning material with realities in the field. 2) it is necessary to increase the understanding of *Advance Materials* for geography teachers at senior high school /MA level in North Polongbangkeng District, Takalar Regency regarding cartography, remote sensing, geographic information systems, disaster Meteorology and Climatology, geology, geomorphology, and environmental conservation. 3) Some teachers who teach geography lessons do not design learning tools (RPP) and adapt them to the characteristics of students, but these teachers only take lesson plans from the internet. This study examines how the level of understanding of the teacher's Advance Materials in geography learning.

2 Analytical Methods

This type of research is a type of qualitative research using a case study approach. This research is located at a senior high school/MA in North Polongbangkeng District, Takalar Regency. This research was conducted from August to September 2022.

Figure 1 above shows an overview of the research locations taken with the consideration that schools in the area have not implemented learning related to advanced materials.

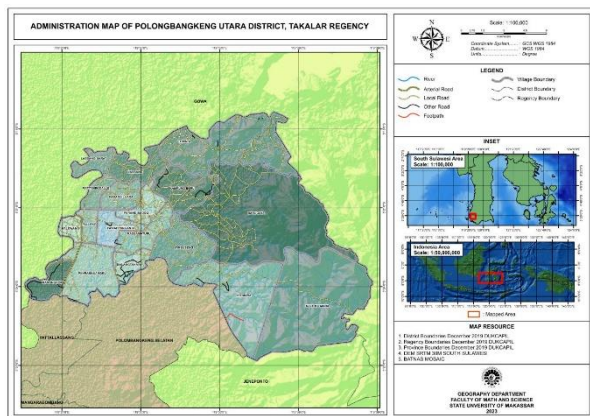


Figure 1. Fig. 1. Map of research locations

The data sources in this study were all 16 senior high school/MA geography teachers. This study examines teachers' understanding of advanced materials in geography learning. Data collection was obtained through interviews, observation, literature study, and documentation. The data analysis technique used in this study is an interactive qualitative analysis model as proposed by [13] namely data collection, data reduction, data presentation, and conclusion. The image of the data analysis model in qualitative research is as follows:

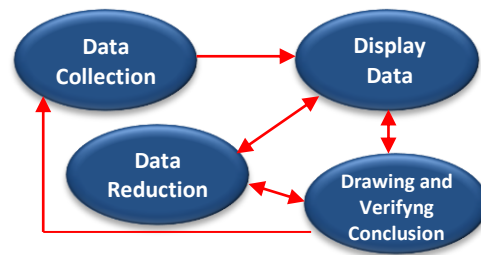


Fig. 2. Components in Data Analysis

Figure 2 above can be explained by the fact that during the data collection phase, researchers collected research data objectively in the form of interviews, observations, and documentation in the field. During the data reduction stage, researchers refer to the process of selection, paying attention to simplifications, abstractions, and transformations of data that have not been treated as field notes. Furthermore, data presentations are structured collections of information that provide opportunities for drawing conclusions and taking action. The final stage is to summarize the descriptions and forms of descriptions of hitherto obscure or ambiguous objects into a final stage, and after investigation, whether it is causal or interacting, hypothetical or theoretical. It is to make it clear that there is a possibility.

This study took the assessment criteria [14] described in the table below:

Table 1. Criteria for Assessing the Understanding of Advance Materials for Geography Teachers in senior high school

Interval	Criteria
>80	Very good
61-80	Well
41-60	Pretty good
20-40	Low
<20	Very Low

3 Results and Discussion

The results of this study indicate that the competency categorization of geography teachers in Polongbangkeng Utara District, Takalar Regency is taken based on 4 competencies, namely pedagogic competence, professional competence, social competence, and personality competence as shown in the table below:

Table 2. Competency Categorization of Geography Teachers in North Polongbangkeng Takalar District.

Criteria	Pedagogic Competence		Professional Competence		Social Competence		Personality Competence	
	f	(%)	f	(%)	f	(%)	f	(%)
Very good	0	0	3	18.75	5	31.25	4	25.00
Well	9	56.25	10	62.50	7	43.75	9	56.25
Pretty good	7	43.75	3	18.75	4	25	3	18.75
Low	0	0	0	0	0	0	0	0
Very Low	0	0	0	0	0	0	0	0
Total	16	100	16	100	16	100	16	100

source: Research results, 2022

The data described in Table 2 above indicates that all the competencies tested have good criteria as evidenced by the percentage of all competencies in the good category. The results of the research on the teacher's understanding score in distinguishing subject matter and advanced material can be seen in the following table:

Table 3. Geography Teacher's Understanding Score in Distinguishing Essential Materials and Advance Materials

Criteria	Materi Esensial		Advance Materials	
	f	(%)	f	(%)
Very good	4	25	3	18.75
Well	8	50	6	37.50
Pretty good	4	25	7	43.75
Low	0	0	0	0
Very Low	0	0	0	0
Total	16	100	16	100

source: Research results, 2022

Table 3 above shows that almost all informants got very good scores. This happened because the teachers were able to differentiate these materials based on their experience and geographic competence. Table 3 above shows that almost all informants got very good scores. This happened because the teachers were able to differentiate these materials based on their experience and geographic competence. So it is also necessary to describe the age of the respondent, which will be explained in the following table:

Table 4. Age Range of Informants

Informant Age	Frequency	Percentage (%)
>50	3	18,75 %
40 - 49	3	18,75 %
30 - 39	6	37,50 %
20-29	4	25,00 %
Total	16	100 %

source: Research results, 2022

The age of the informants listed in Table 4 shows that all vulnerable ages are already proficient in terms of advanced materials. Based on the results of the study, shows that the level of understanding of Advance Materials for geography teachers in North

Polongbangkeng District from 16 dominant geography teachers is in the fairly good category (46.88%), related to this the deepening of *Advance Materials* is a form of teacher commitment and loyalty. An educator must achieve a qualification standard consisting of 4 teacher competencies as outlined in Law number 14 of 2005 which includes pedagogical, personality, social and professional competencies/abilities. As [15] said that self-improvement is the value of affiliation or commitment to duty.

A teacher's commitment to learning takes into account [16] which states that teachers make a major contribution to learning achievement by 76% consisting of 32.43% teaching ability, 32.38% material understanding, and 8.60% teacher attitude. Advanced materials in geography learning are an attempt to link a subject matter with examples that are more contextual so that students get a picture of integration in the acquisition of their learning outcomes. Contextual understanding can improve student learning outcomes in understanding subject matter (achieving learning goals) that are relevant to students and meaningful in their lives [17] Therefore, all geography teachers are required to have high abilities to achieve these geography learning objectives.

As a contextual science, geography must be taught very practically, and understood more than just memorized, so that it is more applicable in everyday life [3]. A teacher's skill in the learning process is one of the main pillars for improving the quality of education, so a teacher's ability in the learning process greatly influences the academic progress of students [18]. Geography teachers must be able to develop abilities and skills to improve the optimization of the learning process [5]. The geography teacher competency standard includes four components, namely learning management, potential development, academic understanding, and personality attitudes [19]. The role and competence of the teacher in the learning process include the teacher as a teacher, mentor, skill trainer, and motivating students.

The seriousness of the geography teacher in learning management is shown by the preparation before learning which is contained in the arrangement of the learning plan in the form of a syllabus or lesson plan. Ideally, the learning design is adapted to the times and can accommodate every intellectual development of students. Modern educators must be able to provide education and upbringing that is flexible, individually oriented, able to form the competencies necessary for the development of the country, able to develop students' creative abilities, and teach one of the main skills [20]. Educators are required to be able to develop their abilities in managing the class when carrying out the learning process because this is the main factor that determines the increase in student achievement [21]. Twenty-first-century teachers face the challenge of accelerating the development of information and communication. Advances in information technology have increased the flexibility of individual knowledge acquisition for both teachers and students.

A teacher is someone who acts as a guardian in conducting the learning process. Effective teachers are

able to create an effective and enjoyable atmosphere and learning environment and are better able to manage their classes so that their students are learning at an optimal level [22]. The competencies that teachers should acquire include at least educational competencies, personality competencies, social competencies, and professional competencies acquired through vocational training [23]. In carrying out the teacher's duties as an educator, these teacher competencies must mutually support one another. Even though the teacher must have the expected standards through these four competencies, in carrying out their duties, the teacher must understand which competencies must be demonstrated in real terms to support his role as a teacher so that he can show that he is a professional teacher [24]. Concerning the teacher's duties in carrying out learning in accordance with the curriculum, the teacher is committed to carrying out his duties in delivering *Advance Materials* in geography learning.

4 Conclusions

Based on the results of the study, it was shown that geography teachers at senior high school/MA in North Polongbangkeng Takalar District conceptually understood advanced materials. To increase teacher capabilities in the learning process, it is necessary to increase teacher competence in mastering material, one of which is by exploring *Advance Materials* via the internet in finding sources of information in the form of teaching materials and journals. Geography teachers must get used to conducting scientific discussions to improve interpersonal intelligence which will then have a positive effect on improving the quality of learning in accordance with what is needed by students. Activities that can be carried out by geography teachers are in the form of seminars, workshops/training because an educator has a central and strategic role in developing the potential of students in the learning process.

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