Interactive Effect of Score Levels on Students’ Performance in Social Studies

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Abstract
Technological developments in the modern era may help teachers learn about a collaborative learning environment. Technology can motivate students and allow them to be engaged on a completely different level than they have ever before. It also increases student academic experience. This study examined the interactive effect of score levels on students’ social studies performance. The data testing in this study was carried out with the ANOVA test on 29 junior secondary schools. This research was conducted by examining the interactive effect of the audio-visual score level on students’ academic achievement in social studies subjects. The study employs an experimental research method of these 21 junior secondary school students sampled to test the audio-visual. The findings established that audio-visual improves students’ academic performance in social studies. There was no significant interactive effect of score levels on students’ performance in social studies. The study concluded that audio-visual improves students’ social studies performance irrespective of their score levels. It was thus recommended that social studies teachers be encouraged to use audio-visual aids as it gives more meaningful learning to students. Besides, the Government should employ qualified and well-skilled teachers to teach the course, and the curriculum planner must be careful in designing material to teach social studies.

Keywords: Interactive Effect; Score Levels; Audio-Visual; Students Academic Performance; Social Studies.

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INTRODUCTION

Technological developments in the modern era may help teachers learn about a collaborative learning environment. Integrating technology into the classroom begins when the teacher prepares lessons that use technology relevantly (Kausar, 2013). The use of technology in this classroom needs to be used by teachers, and students also need to adapt and understand how to use technology in learning activities. The use of technology in the classroom can also be used in various aspects of learning. Not only as a tool to find learning materials but also a tool to support the delivery of learning materials. The use of technology-based learning media is expected to help make learning activities in the classroom easier and more interactive. In addition, it is also expected to be able to provide benefits to students, both increasing enthusiasm for learning and improving learning outcomes.

Miller (2011) noted that students use technology to interact and exchange ideas, research independently, adapt to new situations, and take ownership over their learning. Technology can motivate students and allow them to be engaged on a completely different level than before. It also increases student academic experience. The use of technology in this classroom needs to be used by teachers, but students also need to adapt and understand how to use technology in learning activities. The use of technology in the classroom can also be used in various aspects of learning. Not only as a tool to find teaching materials but also as a tool to support the delivery of teaching materials. The use of technology-based learning media is expected to help make learning activities in the classroom easier and more interactive. In addition, it is also expected to be able to provide benefits to students, both increasing enthusiasm for learning and improving learning outcomes. According to Hertlein & Ancheta (2014), communication technologies such as mobile phones, the internet, and social networking play an important part in influencing the lives of individuals. Students’ use of cell phones in learning activities is expected to help learning activities and provide a lot of knowledge related to the material being studied.

The use of technology by teachers can also be used as a means to evaluate the students they teach. Activities during the achievements achieved by students in these learning activities can be seen easily. For example, teachers can determine whether students achieve learning objectives or not to what extent students can have the required competencies. Teaching is enhanced through technology because teachers can help meet student learning and monitor progress effectively (Matthew, 2016). Through this technology, learning activities can be effectively established and provide good feedback for both teachers and students.

Improved student test scores are strongly influenced by attendance and diverse learning experiences outside of the home, peers, museums and libraries, summer programs, online, and community. An educated and supportive parent helps their child with homework and can provide many other benefits to their child. According to Lerchenfeldt (2017), closing schools based on low standardized test scores will do nothing to improve their students’ academic achievement. The problem with generating additive scores is that it depends on two test scores for each student. One score represents what students know when they enter the teacher’s class, and the next score represents what students learn in class. It is more difficult than it seems to produce enough test data to rate all teachers in this way. Only some scores and subjects are tested. Students move from school to school, where tests may differ, making comparisons impossible (Hanford, 2021).

Various learning materials need to be studied by junior high school students. One of which is learning Social Sciences, which is one of the important branches of science and has a big influence in everyday life, both for present and future life. The material in social studies follows the development of people’s social life, thus making social studies a subject with material that changes from time to time (Desy et al., 2014).
There are two types of factors that affect a student's academic achievement. These are factors both inside and outside the classroom, and these factors have a significant impact on student performance. Intra-class factors include the student's English proficiency, class schedule, class size, test results, learning facilities, homework, class environment, the technology used in the class, and exams systems. External classroom factors include extra-curricular activities, family problems, work, and other problems. (Kabuka, 2016). concluded that discipline positively correlates with academic performance. If there are too many classes, the quality of education can deteriorate due to a shortage of teachers and can lead to bottlenecks in curriculum implementation. Also, data on children on UBE are highly desirable. It helps determine students’ expected enrollment rates at the low, medium, and high program base levels. The class size also has implications for the quality of teaching, assessment, and audio-visual use. Fan (2012) confirmed that in smaller classes, time spent on classroom management was decreased, which led to improvement in academic achievement.

The study's main purpose was to investigate the interactive effect of score levels on students' academic performance in social studies in junior secondary schools, Ilorin metropolis. Specifically, the study examined; the performance of students taught using audio-visual aids and those taught with other aids and the interactive effect of score levels on students' performance in social studies. The hypothesis of this research is Ho1: There was no significant difference in student performance based on the score levels.

**LITERATURE REVIEW**

The development of the era that has entered the era of globalization has caused several sectors to experience technological developments. One of them is the education sector, which began to develop with the emergence of various types of learning media. Teachers can use this learning media to achieve learning objectives (Ainina, 2014). The use of learning media can also affect learning outcomes; it is necessary to select and use appropriate learning media following the objectives of competence to produce good interactions between teachers and students (Fatmawati et al., 2021).

This learning media can be applied in various subjects, both in science and society. In the scope of social studies, it is formed to become individuals who can understand their social life in the human world, carry out various activities and interact to produce free members of society, having a sense of responsibility for community ideas for future generations. (Desy et al., 2014). Therefore, in social study, students need to master it.

Electronic media can be defined as all electronic media and applications used to plan and implement distribution and pricing to create transactions to achieve individual and corporate goals (Strauss, 2016). Media can also be interpreted as a source of learning to gain knowledge and skills through various learning resources (Ainina, 2014). Electronic media can facilitate communication connected from end to end through media facilities. What is the use of electronic media to communicate as entertainment? Among them is internet usage via email, social media tools, video chat, and others (Wessel et al., 2016). Electronic media is certainly diverse, and there is not only one type. There are electronic media in the form of audio-visual among the many types. The students and teachers can use the audio-visual to reference teaching materials in learning activities. This media is used to add meaning without full dependence on verbal symbols or language (Anzaku, 2011).

This definition implies that textbooks do not count as audio-visual material but rather the pictorial illustration therein. Kustandi (2013) refers to audio-visual materials as instructional media and defines them as the tools that can help the learning process. It has to clarify the meaning of the message conveyed to achieve the goal of learning better and perfectly. Audio-visual media is a medium that utilizes two kinds of senses, the sense of sight and the sense of hearing. By using these two senses, students will be more
optimal in learning. Learning will be more meaningful because students can see and hear almost real events related to the ongoing learning (Tariani & Sumantri, 2018).

According to Merriam Webster (2021), social studies is a part of the school on college curriculum concerned with the study of social relationships and the functioning of the society and usually made up of courses in History, Government, Economics, Civics, Sociology, Geography, and Anthropology. In Nigeria, social studies are defined as the integrated study of the social sciences and humanities to promote civic competence (Ayodeji, P. I & Lawal, 2017). Firda et al. (2017), in their research on male-female Students' Perception of the use of Audio-Visual Aids to Improve their vocabulary Mastery. It found out that both male and female students positively perceive the use of Audio-Visual Aids to improve their vocabulary mastery. They agreed that the use of Audio-Visual Aids makes them more focused on the learning process. In addition, listening activities through audio-visual media are also believed to improve students' listening skills. The learning activities also can be used to find out topics or include concentrated listening activities where it is part of intensive listening (Miftakh & Samsi, 2015).

Tang & Intai (2017) found a significant change in the scores in the result of pre-assessment and post-assessment of the experimental group. It implies that audio-visual aids significantly increase students' understanding of the topic taught, leading to high marks achieved in the post-assessment. And The use of audio-visual learning media was also investigated by Pradilasari et al. (2019) stated that this audio-visual media is very suitable for teaching material by providing increased learning motivation in students and students can achieve learning goals.

In their research, Sahin et al. (2016) challenge it by using audio-visual aids as warm-up activity in teaching aviation. English found out that the challenges encountered in using video arise from curriculum design, technical constraints, and video selections. Ibe & Abamuche (2019) stated that one of the benefits of audio-visual technology could affect student achievement and interest. For example, the students in biology learning activities in junior high schools in the country get the results that the group using integrated audio-visual content achieved higher test scores than the group using the integrated audio-visual content. Groups that do not use it.

**METHODS**

This study uses experimental research methods to test research ideas under controlled conditions and strong references to variables to obtain the desired results. According to Sugiyono (2013), Experimental research methods can be interpreted as research methods used to find the effect of certain treatments on others under controlled conditions. The population of this research is all the secondary schools of Ilorin, a metropolitan city. This type of experimental design is adopted because it allows the researcher to test his idea in a controlled environment and because the researcher has power over the variables to obtain the desired results. The students in jss2 were chosen because the developed audiovisuais consisted of the contents of the subjects of the jss2 curriculum. They tested the data in this study with the ANOVA test on 29 junior secondary schools. This research was conducted by examining the interactive effect of the audiovisual score level on students' academic achievement in social studies subjects. All data collected were kept confidential. Ethical issues were considered as respondents were not cohered to participate in the study. Students' and parents' consent was sought to permit this study. Furthermore, all authors whose work was cited were duly referenced.
RESULT AND DISCUSSION

Based on the results of research that has been carried out, the following results are:

Table 1
Mean Gain on Difference between the performance of student before and after taught using audio-visual aids

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>21</td>
<td>11.98</td>
<td>2.82084</td>
<td>4.51</td>
</tr>
<tr>
<td>Post-test</td>
<td>21</td>
<td>16.49</td>
<td>3.12388</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Research, 2022.

This research was conducted on 21 junior high school students with pretest and posttest activities. Based on the data above, an answer can be taken for the formulation of the first research problem, namely regarding the performance of students taught using audio-visual aids and those taught with other aids. Based on the table 1 indicates that the student's performance in social studies before teaching social studies with audio-visual aid was 11.98. The students' performance in social studies after being taught social studies with audio-visual aid was 16.49. The mean gain of 4.51 established that the audio-visual aid had improved the student's academic performance in social studies.

In addition, there is a second problem formulation in this study, namely the interactive effect of the score level on students' social studies learning achievement. Based on the hypothesis, there is no significant interactive effect between the level of scores on students' social studies learning achievement.

Table 2
ANOVA on interactive effect of score levels on student's performance in social studies

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>.097*</td>
<td>1</td>
<td>.097</td>
<td>.012</td>
<td>.915</td>
</tr>
<tr>
<td>Intercept</td>
<td>3309.621</td>
<td>1</td>
<td>3309.621</td>
<td>395.376</td>
<td>.000</td>
</tr>
<tr>
<td>Error</td>
<td>159.045</td>
<td>19</td>
<td>8.371</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3478.000</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>159.143</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. R Squared = .001 (Adjusted R Squared = -.052)

Sources: Research, 2022.

The results were also obtained after the data were analyzed using the ANOVA formula to determine the interactive effect of score levels on students' performance in social studies. Based on these results, it can be seen that the analysis of the significant interactive effect of score levels on students' performance in social studies is displayed in table 2. The null hypothesis was rejected as F (1, 21) = 0.12 and p = 0.91>0.05. Since the p-value was greater than the significance value of 0.05, the hypothesis was not rejected. Thus, there was no significant interactive effect of score levels on students' performance in social studies.
So, based on the data above, the findings established that audio-visual aid had a positive effect on students' academic performance in social studies. Although students have different characteristics and backgrounds, a positive effect is shown when the results are obtained as above, such as research conducted by Hart et al. (2019) There is a positive relationship between the subjects taken by students even though students have different backgrounds, abilities, and profiles.

The teacher is one component that controls the condition of the class in carrying out learning and teaching activities. The teacher conveys reference sources and prepares methods, and plans learning activities so that students can capture learning material (Adittia, 2017). One way that teachers can deliver material is assisted by the existence of learning media. Teachers can use various types of learning media, and one of them is audio-visual learning media which are considered relevant to be combined with contextual learning models (Dwi Agustini & Japa, 2018).

Learning media also has an important role in learning activities because this media is defined as an intermediary between the teacher, the material provided, and the students. Because the purpose of the learning media itself is to help achieve the goal of understanding and remembering the information or messages contained in learning. The use of learning media will also greatly assist the activeness of the learning process and delivery of the message of the lesson content. It can generate student motivation and interest, helping students improve understanding and present data attractively and reliably (Dwi Agustini & Japa, 2018).

The quality of education provided by teachers to students can be seen by the acquisition of student learning outcomes obtained optimally both in terms of cognitive, affective, and psychomotor (Tanjung, 2017). The teacher can review these three aspects from the results of the evaluation of learning activities, one of which involves learning media. The ability of students to understand learning materials based on the learning media provided includes increasing knowledge, sharpening empathy, and student activity in interacting with learning media. The use of audio-visual media in learning is expected to help achieve the learning objectives carried out in schools. It can be useful for motivating students in improving the learning outcomes achieved in the form of knowledge (cognitive), attitudes (affective), and skills (psychomotor) because students get direct experience through observing the audio-visual media impressions (Sidi & Mukminan, 2016).

The audio-visual teaching materials can also form values in students with an internalization process to form the inherent process of character values in students' identities (Suhartini et al., 2019). According to Savage (2019), in social studies subjects, it is necessary to have special preparation in social studies to avoid negative impacts that hinder students in achieving educational standards. Social education can also have national awareness and integration implications by considering the learning methods used (O & Okafor, 2019).

Especially in implementing distance learning, this becomes one of the challenges for teachers and students in carrying out learning activities (García & Weiss, 2020). One thing that needs to be considered is the material to convey the material. Learning materials made in the form of multimedia can allow students to gain more experience and provide opportunities for teachers to analyze student work and discuss it together (Gallagher, 2019). The forms of learning media that can now be used are very diverse, one of which is audio-visual learning media.

Ngozi, Samuel, and Isaac (2012) unanimously agreed that audio-visual materials are very important and useful in education because of the normal learner. As far as the functions of his preceptor mechanisms are concerned, gain understanding in terms of multiple impressions recorded through the eye, ear, touch, and other series. According to Madhuri (2013), Audio-visual tools for students can improve speaking skills several times over, more than other methods. Audio-visual aids can be defined as restorative materials and devices that aid sound and sight in teaching to facilitate learning for students by activating more than one sensory channel. The audio-visual teaching method had a positive effect on students' academic performance. Thus, this shows that the conventional teaching method is less effective and performance-oriented.
Several factors could influence students' academic performance. This is means that sometimes a teacher may find it difficult to choose materials appropriate to the topic taught. There could also be a language barrier, especially when using videos, which could therefore invalidate its use at that particular point. There could also be a problem of interest as some students can be carried away by the fanciness of pictures and therefore lose the class's purpose. Severely studies have been carried out on the effectiveness of audio-visual materials. Shamsideen (2016) also suggested a great impact on the audio-visual teaching-learning process in various literacy centers in Lagos state. His work also showed inadequate audio-visual materials available in those literacy centers.

The study further showed no significant interactive effect of score levels on students' performance in social studies. Also on this, Richard et al. (2010) stated that student test score gains are influenced by family resources, student health, family mobility, and the influence of neighborhood peers and classmates who may be relatively more advantaged or disadvantaged. The schools and teachers should not be blamed for low standardized test scores due to the impact a student family has on academic achievement. On the other hand, teachers' competencies can also improve students' social studies abilities (Edinyang & Ubi, 2013).

CONCLUSION

Based on the discussion results above, it can be concluded that the rapid development of technology and information can affect the realm of education, one of which is the development of learning media in the form of audio-visual. Based on the test results of 21 junior high school students in Ilorin, Metropolis, the study's findings showed that audio-visual aid positively affects the students' academic performance in junior secondary school. This tool improves students' performance irrespective of their score levels. However, based on the results of the ANOVA test, it was found that there was no significant interactive effect of score levels on students' performance in social studies.

So, based on the results of the research above, the author would like to provide suggestions for various parties, including further research, including social studies teachers are advised to use audio-visual aids to give students more meaningful learning. The Government should employ qualified and well-skilled teachers to teach the course. On the other hand, the curriculum planner must be careful in designing material to teach social studies as students tend to know what they see and hear. Hence, audio-visual aids should possess the characteristics of visibility, sufficiency, simplicity, attraction, clarity, and other good qualities.

AUTHOR’S NOTE

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