THE USE OF EDUCANDY INTERACTIVE MEDIA FOR LEARNING *INOFFIZIELLE UHRZEITEN*

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Abstract

Differences in the way of expressing official and unofficial time in German often make students have difficulty in understanding Uhrzeit material, especially inoffizielle Uhrzeiten. One of the efforts to overcome this is by utilizing a variety of learning media, such as Educandy interactive media. The purpose of this research is to find out: 1) The level of students' understanding of inoffizielle Uhrzeiten material before the use of Educandy media, 2) The level of students' understanding of inoffizielle Uhrzeiten material after the use of Educandy media, 3) The effectiveness of using Educandy media to improve students' ability to master inoffizielle Uhrzeiten material. This research uses quantitative methods with quasi-experimental types. The population in this study were all grade X students at SMA Pasundan 1 Bandung in the 2022/2023 school year with a research sample of 24 students of grade X MIPA 4 as the experimental group and 21 students of grade X MIPA 3 as the control group. The results of this study are as follows: 1) The average test scores of the experimental group and control group before treatment were in the poor category, 2) After treatment, the average test score of the experimental group was in the very good category, while the control group was in the good category, 3) Based on the results of the Independent Sample t-Test, the use of Educandy media proved to be effective. This is evidenced by the significance value (2-tailed) obtained less than 0.05 (<0.001). Thus, Educandy media can be an alternative learning media in learning inoffizielle Uhrzeiten.

Keywords: educandy, inoffizielle Uhrzeiten, learning media

1. INTRODUCTION

German is one of the second foreign languages besides English that is taught at the upper secondary education level (SMA/MA/SMK) in Indonesia. The German syllabus contains several

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lessons such as observing or listening, asking questions, understanding and associating the meaning of speech, and communicating. In learning to communicate, students are often faced with difficulties to express something. This is thought to be caused by the difference in language families between German and Indonesian. In addition, other factors that cause students' difficulties in learning German are the limited duration of learning time at school and the classroom atmosphere during the process of teaching and learning activities which affect the students' absorption of the material presented by the teacher so that the effectiveness of the learning process is reduced.

Of the many materials studied by students, not every material is always easily understood by students. One of the materials offered in the syllabus and is quite difficult to understand with the fast tempo of learning at school is *Uhrzeit* material, especially regarding *inoffizielle Uhrzeiten*. *Uhrzeit* material discusses the description of time in the form of hours. In German language learning, the delivery of time is divided into two ways, namely delivery in the official form (*formell*) which is commonly used in formal situations, and unofficial form (*informell*) which is commonly used in everyday conversation. Time information that is delivered in an official form is also called *offizielle Uhrzeiten*, while those delivered in an unofficial form are also called *inoffizielle Uhrzeiten*.

In conveying time officially and unofficially, there is a significant difference in the way it is expressed. In conveying time officially, the time format used is 24 hours, so the hour numbers mentioned are 1 to 24, and the hour statement is mentioned first, then followed by the minute statement. In contrast, in unofficial time expression, the number of hours mentioned is only 1 to 12 because the time format used is 12 hours, and the minutes are mentioned first, followed by the hours. In addition, in unofficial time expression, there are prepositions *nach* (more) and *vor* (less) and several terms, such as *Viertel* which means 15 minutes, *halb* which means 30 minutes or half an hour, and *kurz* which means a few minutes. Therefore, this difference makes students often have more difficulty in understanding the *inoffizielle Uhrzeiten* material.

The difficulties that are often faced by students are also found in SMA Pasundan 1 Bandung. As for factors other than the difference between official and unofficial mention of time, the use of learning media in the form of books alone is not always enough to make students understand learning materials quickly. This is because the use of learning media has often been encountered by students during their education at school. Therefore, sometimes some types of learning media do not create an interactive learning process and are not stimulating enough to increase students' motivation in learning a material. So, based on the exposure of the statements mentioned, a variety of learning media is needed in learning German, especially in learning *inoffizielle Uhrzeiten* material. A variety of media can be utilized to create an interactive learning process, one of which by utilizing interactive media that will attract more attention from students and reduce student boredom during the learning process.

One of the interactive learning media that can be used is the web-based Educandy application. This application can be used online, either through a laptop or smartphone to create educational games in a fun network. To be able to access the application, it requires internet data. However, the game in this application can still be implemented during face-to-face learning. The educational value contained in this application can be utilized by users to understand learning materials, including *Uhrzeit* material. Through the Educandy application, students can play games to train their mastery of a learning material.

2. LITERATURE REVIEW

In the learning process, activities are carried out by two parties, namely teachers who are facilitators and students who are learners. These learning activities involve a link so that messages in the form of knowledge (cognitive), skills (psychomotor), and positive attitudes and values (affective) can be conveyed. In this case, the link is the media and learning resources that support and influence the success of students' learning. Learning media is needed in delivering the message so that the value and transfer of knowledge can be precisely achieved according to its target.

The explanation of learning media on the website https://www.hrm-akademie.de/stichworte/lernmedien, HRM Akademie Deutschland GmbH is "*bei den Lernmedien handelt es sich speziell um Kommunikationsmittel, die zur Vermittlung von Lerninhalten verwendet werden*". The quote means that learning media is specifically a means of communication used to convey learning content.

The understanding of the media according to Rösler and Würffel (2014, p. 12) that *"Medien sind Mittel, mit denen Inhalte, Aufgaben usw. transportiert werden, um so den Erwerb von Wissen und Fertigkeiten zu unterstützen"*. According to them, media is a means or tool to convey content, tasks, and so on to help acquire knowledge and skills. Thus, the media can be interpreted as an intermediary or delivery tool for message sources in teaching and learning activities that can affect the effectiveness of learning to support the acquisition of knowledge and skills.

From the opinions mentioned, it can be concluded that learning media is anything that can convey learning content as a means of communication between teachers and students so that the process of teaching and learning activities can be more effective and learning objectives can be achieved properly. Good learning media has several criteria, namely suitability for learning material, ease of use, and attracting attention to students so that learning objectives can be achieved optimally (Widada and Herawaty, 2017 in the book *Introduction to Learning Media*, Purba et al, 2020, p. 8). 8).

Media has a vital role and is needed as a support in educating students in the learning process. The functions of learning media according to Hoffmann (2008, p. 8) are: 1) *Medien machen den Unterricht motivierend*, 2) *Medien formen das Denken der Schüler*, 3) *Medien helfen den Denkwegen der Schüler*, 4) *Medien helfen beim Einspeichern im Gedächtnis*. Based on the points of the function of learning media according to Hoffmann, it can be concluded that the function of learning media is to help students in forming a mindset and making learning motivating so that students can understand learning material more easily.

Learning media has various types that can be harmonized with the needs of teachers in designing learning. Media has a significant role and is needed as a support in educating students in the learning process. According to Oemar Hamalik (1994) cited by Tafonao (2018, p. 107), learning media has a broad function. First, the educational function, namely every media that is a communication tool in the learning process contains educational properties because it provides educational influence. Second, social function, namely learning media can provide actual information and experiences from various fields of social life. Third, the economic function, which can be used intensively in industrial fields. Fourth, political functions for political development both material and spiritual. Fifth, the function of art and cultural communication.

More detail, Hamid et al (2020, p. 14) in the *Learning Media* book divides the classification of learning media into nine types, namely: 1) Audio media, 2) Print media, 3) Print audio media,

4) Still visual media, 5) Motion visual media, 6) Motion audio-visual media, 7) Physical object media or still visuals with audio, 8) Object media, and 9) Computer and technology-based media. Based on the classification of learning media, this research will use technology-based media with the intended visual sensory channel, namely Educandy interactive media.

Based on the page http://www.3dmadness.de/ the article section themed "Interactive Media" (in Reinecke, 2012) that "*unter Umgang mit interactiven Medien versteht man die Kommunikation zwischen einem Medium wie zum Beispiel dem Fernseher oder einer Spielekonsole und dem Benutzer*". The quote means that interactive media is media that can create communication between the media itself, such as television or game consoles with its users. Interactive media plays an important role in helping a teacher to convey messages and information to students more easily and make the learning atmosphere more active and fun.

The definition of interactive media is in line with the opinion of Hillmayr, et al (2017) in the *ON-Kölner* online journal (Küsel & Markic, 2021, p. 159) which says "*unterschiedliche Studien zeigen, dass die Benutzung von digitalen Medien bzw. In-formation and Communication Technologies (ICT) große Potenziale im Lehren wie auch im Lernen aufweisen*". The quote can be interpreted that various studies show that the use of digital media or information and communication technology (ICT) has great potential as well as in the teaching and learning process.

Educandy is one of the interactive media in the form of a web-based application, so that in its use, Educandy can be accessed online through the application installed on a smartphone or accessed through the official website https://www.educandy.com/. According to Ulya (2021, p. 57), Educandy, which has the slogan 'making learning sweeter', can be concluded that this media can make learning more fun and is an educational media that is packaged in the form of a game because it has a sweet colorful appearance so that it seems cheerful. As for the opinion expressed by Abidin, Aljamaliah, Rakhmayanti, and Anggraeni (2022) in Nabila and Indriwardhani (2022, p. 1418), the advantages of the Educandy application as an educational media for making quizzes are its attractive and fun appearance. Therefore, according to the concept, the games made are still in the context of learning that is not boring. Thus, it can be said that Educandy is an interactive media in the form of an application whose concept has educational value in games with a colorful display so that it can provide a fun learning experience.

Educandy provides a feature to create quizzes into a game. According to the official website of Educandy (https://www.educandy.com/aboutus.php), there are 8 types of games that can be generated and consist of three core game features, namely words, matching pairs, and quiz questions. From the three features, it is further divided into several types of games, namely word search (finding words among random letter arrays), hangman or spell it (giving answers by spelling letter by letter), anagrams (exchanging letters in words so that the word has another meaning), nought & crosses (choosing the correct answer with or up to the cross position), crosswords (crossword), match up (matching), memory (choosing answers in the specified order), and multiple choice (multiple choice).

From the background description, the use of Educandy interactive media is applied to learning *inoffizielle Uhrzeiten*. Based on Duden Bedeutungswörterbuch (in Qudsi, 2013, p. 7), the definition of *Uhrzeit* is "*von einem Zeitmesser, der Uhr angegenebe Stunde*" which means that *Uhrzeit* is a measuring device used to measure time. The mention of time in German is divided into two forms, namely the official or formal form (*formell*) or *offizielle Uhrzeiten* and the

unofficial or informal form (*informell*) or *inoffizielle Uhrzeiten*. Therefore, the sentence structure for mentioning time in the official form is different from mentioning time in the unofficial form.

Offizielle Uhrzeiten or time information in an official or formal form is usually used when involving a formal public audience. In *offizielle Uhrzeiten*, the time information that is spoken first is the mention of numbers that show the hour, then followed by the word '*Uhr*' (hour), and then the minute information. The time format used in this form is 24 hours.

Inoffizielle Uhrzeiten or time information in informal form is usually used in casual situations or in everyday conversation. The time format in *inoffizielle Uhrzeiten* is 12 hours. In the informal mention of time, there are several prepositions, such as *vor* (less) and *nach* (more), and several terms, such as *Viertel* (15 minutes or a quarter), *halb* (30 minutes or half), and *kurz* (a few minutes). There is also a combination of prepositions and terms, such as *Viertel vor* (less than a quarter) or *Viertel nach* (more than a quarter).

The following table gives examples of the aforementioned times and the sentence in which they are mentioned in the official form (*offizielle Uhrzeiten*) and the unofficial form (*inoffizielle Uhrzeiten*).

Table 1. Examples of Time Disclosure in Official and Unofficial Forms

Hours	Offizielle Uhrzeiten	Inoffizielle Uhrzeiten
9.10	*neun Uhr zehn*	*zehn nach neun*
10.15	*zehn Uhr fünfzehn*	*Viertel nach zehn*
11.30	*elf Uhr dreißig*	*halb zwölf*
12.45	*zwölf Uhr fünfundvierzig*	*Viertel vor eins*
13.57	*dreizehn Uhr siebenundfünfzig*	*kurz vor zwei*

3. METHODOLOGY

This research uses quantitative methods, namely experimental methods of the quasi-experimental type. The quasi-experimental design used in this study was Pretest-Posttest Non-equivalent Control Group Design, namely the existence of an experimental class and a control class or comparison class.

The population in this study were all grade X students at SMA Pasundan 1 Bandung in the 2022/2023 school year with samples taken, namely 21 students in grade X MIPA 3 and 24 students in grade X MIPA 4. The instruments used in this study were: 1) Learning Implementation Plan (RPP), 2) Educandy media, 3) Evaluation instruments in the form of initial tests (pretests) and final tests (posttests). The instruments in this study first went through a validity test and reliability test. The resulting data were analyzed using normality test, homogeneity test, mean difference significance test, and independent t-test.

4. RESULTS AND DISCUSSION

4.1 Students' Comprehension Ability in Learning *Inoffizielle Uhrzeiten* material before Treatment

Based on the pretest data, the experimental class obtained an average score of 53.9 with the lowest score of 29.7 and the highest score of 83.3 from a scale of 10-100. In the control class, the average value obtained was 55.009 with the lowest value of 37.5 and the highest value of 66.7. Based on this data, it is known that both classes fall into the "not good" category.

4.2 Students' Comprehension Ability in Learning *Inoffizielle Uhrzeiten* material after Treatment

Based on the posttest data, the experimental class obtained an average score of 92.2 with the lowest score of 79.2 and the highest score of 100 from a value scale of 10-100. The control class obtained an average score of 77.8 with the lowest score of 58.3 and the highest score of 91.7. Based on this data, it is known that the level of understanding of students after being given treatment in the form of using Educandy interactive media in the experimental class is included in the "very good" category, while in the control class, it is included in the "good" category.

4.3 Effectiveness of Using Educandy Interactive Media in Learning *Inoffizielle Uhrzeiten*

Based on the results of the data analysis test, it is known that the learning outcomes of students in the experimental class have increased significantly, which can be seen from the average pretest score which is included in the "not good" category and the average posttest score which is included in the "very good" category. The learning outcomes of students in the control class can be seen to have also increased, but not as in the experimental class. This can be seen from the average pretest score which is included in the "not good" category and the average posttest score which is included in the "good" category.

Apart from being seen from the results of the calculation of the average learning outcomes of students, the effectiveness of using Educandy interactive media can also be seen through the results of the data significance test with the Independent Sample t-Test. The results of the Independent Sample t-Test test obtained a significance value (2-tailed) of less than 0.001 so that it shows a significant difference between the pretest and posttest. Thus, based on the basic criteria for decision making, H_0 is rejected and H_1 is accepted, which means that the use of Educandy interactive media is effective in learning *inoffizielle Uhrzeiten.*

5. CONCLUSION

The ability of students' understanding of the *inoffizielle Uhrzeiten* material in the experimental class before the use of Educandy interactive media is included in the "not good" category. This is evidenced by the acquisition of the average value of the initial test (pretest) of 53.9. The control class is also included in the "not good" category with the acquisition of an average pretest score of 55.009. Based on this data, students in the experimental class and control class had the same understanding ability of *inoffizielle Uhrzeiten* material before being given treatment.

The ability of students' understanding of *inoffizielle Uhrzeiten* material in the experimental class after being given treatment in the form of using Educandy interactive media has increased, from what was originally included in the "not good" category to "very good" category. This is

evidenced by the acquisition of the average value of the final test (posttest) of 92.2. The control class also experienced an increase in learning outcomes as evidenced by the average posttest score of 77.8 which is included in the "good" category.

Based on the independent t-Test, the average posttest of the experimental class and control class obtained a significance value <0.001. This value indicates that H_0 is rejected. If H_0 is rejected, H_1 is accepted, which means that there are differences in the learning outcomes of students in the experimental class and in the control class after treatment. Then, the statement shows that the ability of students' understanding of *inoffizielle Uhrzeiten* material in the experimental class is better after using Educandy interactive media in the learning process compared to the control class which applies conventional learning without using Educandy interactive media. Thus, it can be concluded that the use of Educandy interactive media is proven effective to improve students' understanding ability in mastering *inoffizielle Uhrzeiten* material.

Based on the description of the research results mentioned, it can be concluded that Educandy interactive media is one of the alternative learning media that can increase students' learning motivation in learning *inoffizielle Uhrzeiten*. This is due to its educational game-based concept as well as attractive features and appearance.

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