

## Analysis of needs for Development of Learning Media UNO Spin Cards Digestive System Materials for High School Students

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### Abstract

Learning media has an important role in the learning process so that students can understand the material and also be able to actively participate in the learning process. Digestive system material in humans includes material that is quite difficult for students to understand. Learning media in the form of UNO spin cards can be used as a solution to the problems of students who have difficulty understanding learning materials. The development of learning media in the form of UNO spin cards was developed referring to the IDI (Instructional Development Institute) development model which consists of three stages, namely Define, Develop, and Evaluate. This learning media uses the game method in accordance with the criteria and needs of students' learning media that presents material more concisely so that it is easy to understand.

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## INTRODUCTION

Learning is an interaction process that occurs between students, educators and learning resources in a learning environment. According to Rusman (2017), learning activities are an educational process that provides opportunities for students to develop their own potential to become better in terms of attitudes, knowledge and skills required by students. The learning process carried out by teachers also plays a very important role in improving the quality of education, especially in learning media. The use of learning media in the classroom can optimize the learning process and make students more active, so that students do not experience boredom and boredom during the learning process (Rahmawati et al., 2018). Learning media that can attract students' attention is media that has pictures and presents material briefly and concepts that are easy for students to understand. In line with the opinion of Adriyani, et al. (2016), that learning media that can arouse student interest during the learning process is using games that can create student activity and interaction with fellow students.

Based on the results of the author's interview with the Biology teacher of class Mrs. Dra. Irma Suyeni said that the learning media used can help students in the learning process, but it has not attracted the attention of students so that not all students have actively participated in the learning process which has resulted in learning not being implemented optimally. Alternative learning media that can be used are learning media using the game method. Games designed to stimulate students' thinking and concentration and have a positive impact in helping the memory process, understanding material concepts and communication skills. Purwanto (2017), said that the learning process with the help of game media aims to enable students to learn independently, increase learning motivation and create a recreational atmosphere so that students do not get bored and fed up easily during the learning process.

Media that can attract students' interest in learning is by making learning media in the form of cards. This is supported by research conducted by Rahmawati, et al. (2018), that card media with games is one of the learning media that can be used to understand the learning material that will be presented so that it does not seem boring. UNO cards are a fun game to use as a learning medium

because this game is popular with teenagers. According to Estiani, et al. (2015), that the game media in the form of UNO cards is fun to play during learning. Learning media using the game method has the advantage that it can attract students' attention, thereby making students participate actively during the learning process.

There are several versions of the UNO game, including UNO stako (block-shaped UNO), UNO attack, UNO card (UNO cards), and UNO spin (UNO cards and rotating board). UNO spin is a variation of UNO cards, in UNO spin there are cards and a rotating board, whereas in the UNO card game there are only cards. According to Najiah (2021), the UNO spin game has cards that can be used to contain learning material. Apart from that, the UNO Spin game also provides a directed learning experience and can give students the opportunity to discuss with each other. Learning media in the form of UNO spin cards makes it easy for students to understand the concept of the material without feeling bored or fed up in the learning process.

Material that is difficult for students to understand is the human digestive system. This is in line with the results of student observations that 73.3% of students stated that the material that was difficult to understand was the digestive system material. As many as 60% of students stated that there were many confusing terms in the human digestive system material. In accordance with Aydin's (2016) statement, the human digestive system is material that is difficult to understand because the study of its physiology is abstract. The mechanisms of the digestive system cannot be seen directly, as a result the understanding received by students is often not in accordance with scientific concepts.

## RESEARCH METHODS

This research was conducted in January 2022 at SMAN 1 Batang Anai, Padang Pariaman Regency, West Sumatra. This research is a qualitative descriptive study using survey techniques. The population in this study was all class XI MIPA and the sample in this study was 30 students in class XI MIPA and one Biology teacher at SMAN 1 Batang Anai.

The instrument used in this research is a questionnaire on the availability and use of Biology learning resources for students and teachers to find out the problems faced by teachers and students in the learning process, especially regarding the human digestive system. Data collection was carried out by distributing questionnaires to students and teachers.

The data collection technique in this research is by providing questionnaires and interviews to students and teachers. Questionnaires were given to students to find out the difficulties of the human digestive system material and the criteria for interesting learning media. Interviews were conducted with teachers regarding students' difficulties, the media used, and students' grades.

Data analysis in this research is qualitative descriptive which refers to the results of questionnaires and interviews regarding material difficulties and the media preferred by students. The results in the form of numbers and percentages are analyzed using the following formula:

$$\text{Percentage} = \frac{X}{Y} \quad (1)$$

Information:

X= Total percentage obtained

Y= Lots of data

With the following validity assessment criteria (Arikunto & Jabar, 2010):

**Table 1.** Product Categories

Percentage (%)	Validity Criteria
81%-100%	Very high
61%-80%	High
41%-60%	Moderate
≥21%-40%	Low

## RESULTS AND DISCUSSION

Based on the results of observations in the form of questionnaires and interviews conducted with students and teachers at schools, the results show that students experience problems regarding understanding the material and the need for interesting learning media. The observation results can be seen in table 2, below.

**Table 2.** Observation results of class XI MIPA students

No	Observation Results
1	Students have difficulty understanding Biology material because it is rote and there is too much material
2	Students have difficulty understanding the processes that occur in the digestive system organs
3	Students need other learning media to help improve their understanding of the human digestive system

Based on observations that researchers have made on biology students and teachers, it was found that students find it difficult to understand biology learning material. Observation results show that students have difficulty understanding the digestive system material because it is rote and there is a lot of material. Apart from that, students need media that can help improve understanding of the digestive system material. Based on these problems, teachers as facilitators need to seek solutions for students in understanding the material presented, one of which is by creating innovative and fun learning media. So that students can more easily accept and understand the lesson material. According to Wulandari et al, 2023, an educator needs innovation and development of learning media to facilitate students in understanding learning material. Apart from that, educators also need to pay attention to learning media that is appropriate to the learning material. This was also explained by Sapriyah (2019) and Rusman (2017), who stated that learning media is a tool in conveying lesson material because it greatly influences the condition of students.

Problems that arise for students are not independent of the difficulty of the material presented by the teacher. Every student has the ability to receive and understand the material well. This can be seen in Table 3 as follows:

**Table 3.** Learners' Difficulties in Human Digestive System Material

No	Learner Difficulties	Percentage %
1	The material is too complicated	13,3
2	Too much material	56,6
3	Matter cannot be observed directly	6,6
4	The material is rote	36,6
5	Many terms are difficult to understand	60

\* Students are allowed to choose more than 1 answer

Based on Table 3, it shows that students' difficulties refer to indicators of a lot of material (56.6%), followed by memorizing material (36.6%), and complicated material (13.3%). According to Aydin (2016), a large amount of material makes students feel tired in understanding the material. Apart from that, students are also required to understand and memorize the material so that the material presented will not be optimal. Arikunto and Jabar (2010) stated that there is a need for evaluation in learning to determine the level of students' understanding. There are many terms that students do not understand and the amount of learning material that students must master is rote (Aisyah et al., 2022). The learning media often used by teachers in delivering learning is using PowerPoint slides, modules, and also LKPD. The learning media has not fully attracted students' attention to actively participate in learning.

**Table 4.** Criteria for Interesting Learning Media for Students

No	Learning Media Criteria	Percentage %
1	Learning media using the UNO SPIN Card game method	53,3
2	Illustrated learning media	3,5
3	Learning media with learning videos	20
4	Practicum	16,6
5	Learning media with power point slides	6,6

Based on the questionnaire that was distributed to students and biology teachers, it was found that students need additional learning media to support the learning process so that students can be more interested in learning. As many as 53.3% of students liked learning media using the game method, namely learning media in the form of UNO spin cards. The UNO Spin card game media is a media in the form of a game that makes students take an active role in the game, making it easier to understand the material (Najiah et al., 2021) and (Rahmawati et al. 2018).

Learning media that is interesting according to students is learning media using the game method. This learning media in the form of UNO spin cards can be a solution to the problems faced by teachers and students. This learning media in the form of UNO spin cards has never been developed at SMAN 1 Batang Anai. This learning media contains short and clear material and also contains several questions and answers. Apart from that, in this media there are also several symbol cards in the form of block, reserve, +2, +4, and game rules that can be used to help students in playing the game later. This game media is very popular with students because this media has a variety of colors and attractive images and the material is also presented concisely so that it is easy to understand (Rahmawati et al, 2018) and (Laksono et al, 2022).

The development of learning media in the form of UNO spin cards was developed referring to the IDI (Instructional Development Institute) development model which consists of three stages, namely Define, Develop and Evalute. This media was developed using the IDI development model because the development model is simple, easy to understand and also suits the needs of researchers in developing media (Estiani et al, 2015) and (Dewi et al, 2021).

## CONCLUSION

Based on data from research results and discussions that have been carried out, it can be concluded that the problem faced in teaching Biology for class digestive system material in humans. In learning material about the human digestive system, a lot of material is presented, so students need additional learning media to increase understanding of the material and enable students to participate actively during learning. The learning media that will be developed on the human digestive system material for class XI high school students is learning media in the form of UNO spin cards.

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