

Innovation of Easy Learning Basic Pattern for Beginners as Teaching Materials in Field of Sewing

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Abstract

This study aims to develop a teaching tool called Easy Learning Basic Pattern for Beginners to solve problems that arise when students design patterns. The selected sample involved Form 4 students who took the Household Science subject to determine the effectiveness of this teaching aid innovation. A questionnaire containing 32 items was distributed to the respondents and analysed descriptively using the Statistical Package for Social Sciences software version 23. The study found that students' perceptions towards the proposed teaching aid are high in terms of understanding and interest in sewing. The results can help students to understand the steps to design patterns correctly and serves as one of the teaching aids that can be utilised by teachers in teaching sewing.

Keywords: Teaching Tools, Sewing, Rasch Model.

Introduction

Education is an important asset to the well-being of the nation and serves as a determinant to the quality of available resources. The world of education is constantly evolving along with the advancement of technology where the interdependence between the two variables often helps the educational world to diversify strategies for the delivery of information during teaching and learning sessions. In line with the notion, among the component of interactive learning is the use of media and technology by teachers to impart and convey knowledge to students for the benefit of their enhanced understanding of a particular topic.

Easy Learning Basic Pattern for Beginners is a teaching and learning approach that uses slides to enhance students' understanding of producing exemplary clothing patterns for women clothes such as baju kurung moden and baju kurung Pahang. Clothing patterns are essential to be produced before tailors can begin to make a piece of clothing. It necessitates basic skills in designing patterns because the process of designing patterns needs to be meticulous and accurate based on body size to ensure that the dress will be beautiful, free from any defects, and provide comfort to the wearer. Norulaini and Nazlina (2019) found that students' issues in drafting patterns is prompted by their difficulty to understand notes given by the lecturers as well as their weakness in producing clothing patterns and pattern divisions.

Selecting appropriate methods and strategies for the teaching and learning of patterns in the classroom is important. According to Franzoni (2009), teaching strategies should be designed to encourage students to observe, analyse, provide their opinions, hypothesise, find solutions, and gain their own knowledge. The selection of learning strategies is often integrated with the concept of learning style. This is because students with no basic skills in sewing often take longer time to understand the pattern making process. They also require strategic guidance to capture the knowledge and information conveyed by the teachers. Therefore, appropriate methods are essential to enhance the effectiveness of teaching and learning in the classroom in order to assist the delivery of knowledge by teachers along with enhancing the mastery of such knowledge by students, subsequently prompting towards achieving the lesson objectives.

One of the common methods of interactive learning is the use of media and technology. It refers to the use of media by teachers to impart knowledge and enhance students' understanding of a topic. Such method allows teachers to create a conducive environment and atmosphere for learning to happen effectively. However, they should never disregard students' different abilities to follow the teaching and learning process. Therefore, teachers should be equipped with relevant expertise to address such challenge by diversifying their teaching and learning strategies. This can be achieved through the utilisation of various techniques that are appropriate to promote the development and ability of students to master a skill. These strategies should encourage students to actively analyse and apply a concept or idea that they learn in the classroom.

A study by Siti Fatimah and Norulaini (2014) found that teaching and learning in a practical class reported that the teaching of creating basic patterns commonly relies on students' understanding of producing basic patterns. The main problem faced by students in sewing classes is that they are unable to follow the pattern making process taught by the teachers even despite numerous repetitions (Siti Fatimah & Norulaini, 2014). This causes the teachers to spend extensive time in explaining the process repeatedly along with the need for them to give individual attention to every student who fails to follow the basic pattern-building steps. As a result, it affects the initial teaching and learning plan that cannot be implemented in a timely manner.

Thus, having effective teaching and learning strategies helps students to use more efficient and systematic methods especially in pattern making. Therefore, this study aims to develop the innovation of a teaching aid known as the Easy Learning Pattern where students will learn more precise steps in designing clothing patterns in the teaching of sewing.

Literature Review

The Importance of Teaching Aids

According to Siti Zubaidah and Ahmad (2015), the use of teaching aids is essential to create a creative learning environment. Jamunarani (2016) stated that utilising videos and media in learning can lead to better presentation of information, provide training and in-class guidance, and assess students' achievement. As a result, the process of understanding will be easier if students can engage in ongoing learning and thus enhances their memory to the knowledge provided by the teachers. This is further elaborated by Ahmad and Esa (2011) who reported that concept maps are also used as teaching aids that can be combined with various media (multimedia) to build students' understanding. In addition, the use of computers and multimedia is said to stimulate students' interest towards the content of teaching and to retain knowledge in the long term memory (Shafie, 2018).

The study by Jamunarani (2016) that looked at the effectiveness of video demonstrations for a three-phase electrical wiring module has found that the usage of media not only stimulates students to follow the practical process but also helps to improve students' understanding and facilitate teachers' teaching. The use of video in teaching and learning sessions is also an effective strategy to integrate authentic work processes, activities, and learning processes. Furthermore, Lofthouse (2010) reported that using videos in classroom may serve as an opportunity for students to practice self-learning.

In addition, a study by Norfadzlan and Effendi (2007) found that employing multimedia modules in the teaching and learning of Life Skills subjects has more positive effects than the traditional methods of using white boards and teacher talk. This is further supported by Aszoura (2007) who found that students have positive perception towards teaching methods that are integrated with computer-aided learning or interactive PowerPoint, which can help to improve their understanding and mastery of particular concepts more effectively.

Easy Learning Basic Pattern for Beginners

Easy Learning Basic Pattern for Beginners is a multimedia-based teaching aid developed by this study to facilitate the teaching process in practical classes during the production of basic clothing patterns. It is built using the Microsoft PowerPoint software that covers the topics related to basic pattern making.

The construction of Easy Learning Basic Pattern for Beginners is a new innovation developed as a continuum of the previous study on Easy Learning Pattern. It contains similar construction with additional innovations on its graphics, animation, and audio. The name of the teaching tool has also been changed from Easy Learning Pattern to Easy Learning Basic Pattern for Beginners.

Purpose of the Study

The purpose of this study is to develop an innovative teaching aid in the field of Easy Learning Basic Pattern for Beginners to assist teachers and students in the teaching and learning process. In addition, this study was conducted to identify students' perception to the effectiveness of the Easy Learning Basic Pattern for Beginners teaching aid that has been developed in line with the students' understanding and interest in designing clothing patterns.

Research Methodology

This study involves a descriptive analysis via a quantitative approach by using the ADDIE Model. This method was chosen to develop the Easy Learning Basic Pattern for Beginners teaching aid and to determine the effectiveness of such innovation in terms of students' understanding and interest rather than by simply distributing a text or reference textbook.

Population and Sample

Population is the targeted group to whom the results of a study will be generalised while sample refers to the process of selecting a number of subjects from a population to be the respondents of the study (Izwan, 2017). In this study, the researcher selected the sample with the aim of identifying the study population consisting of Form 4 students who took up the subject of Home Science at SMK Ranau, Sabah.

Data Analysis

Data analysis is the final process carried out in the methodology of a study. The results of the data and information obtained by the researcher through the distributed questionnaire will be analysed using SPSS (Statistical Package for Social Sciences) computer software version 23. The findings of the study are descriptive analysed. Descriptive statistics are in the form of mean, standard deviation, frequency and percentage.

Research Findings

Effectiveness of Easy Learning Basic Pattern for Beginners in terms of students' understanding of pattern making.

The result shows that the use of Easy Learning Basic Patterns for Beginners has improved students' understanding on the design of clothing pattern where students' comprehension has recorded a mean score of 3.91. Aszoura (2007) stated that students' perception towards computer-assisted learning or using interactive PowerPoint software as a teaching aid is positive, which can help to improve their understanding and mastery of the concepts more effectively. Table 1 shows the students' agreement on the use of Easy Learning Basic Pattern for Beginners in improving their understanding to the topic of dress making for sewing.

Table 1

Effectiveness of Easy Learning Basic Pattern for Beginners In Terms of Students' Understanding of Pattern Making

No	Questions	Number of Students/People (Percentage/%)					Mean	Standard Deviation
		(1) Strongly Disagree	(2) Disagree	(3) Not Sure	(4) Agree	(5) Strongl y Agree		
1	The 'Easy Learning Basic Pattern For Beginners' teaching aid explains the steps for designing patterns clearly.	-	-	-	5 (83.3)	1 (16.7)	4.17	0.41
2	The 'Easy Learning Basic Pattern For Beginners' teaching aid facilitates the learning of pattern making.	-	1 (16.7)	-	4 (66.7)	1 (16.7)	3.83	0.98
3	The 'Easy Learning Basic Pattern For Beginners' teaching aid	-	1 (16.7)	-	5 (83.3)	-	3.67	0.82

	makes it easy for students to understand the basic steps of drafting a pattern.							
4	The 'Easy Learning Basic Pattern For Beginners' teaching aid makes the practical class more engaging than those that rely solely on worksheets.	-	-	1 (16.7)	5 (83.3)	-	3.83	0.41
5	I prefer to draw patterns using this teaching aid.	-	1 (16.7)	-	4 (66.7)	1 (16.7)	3.83	0.98
6	The 'Easy Learning Basic Pattern For Beginners' teaching aid saves you time in designing patterns.	-	1 (16.7)	-	5 (83.3)	-	3.67	0.82
7	The size of writing and lines used in this teaching aid is clear and interesting.	-	-	-	5 (83.3)	1 (16.7)	4.17	0.41
8	The 'Easy Learning Basic Pattern For Beginners' teaching aid is user friendly as all students can use it.	-	-	-	4 (66.7)	2 (33.3)	4.33	0.52
9	The style used in the teaching aid makes it more attractive.	-	-	1 (16.7)	5 (83.3)	-	3.83	0.41
10	The colours used in this teaching aid prompt	-	-	1 (16.7)	5 (83.3)	-	3.83	0.41

	students' interest to create patterns.							
11	The media used to build the teaching aid is easy to be operated.	-	-	-	5 (83.3)	1 (16.7)	4.17	0.41
12	The design used makes this teaching aid more attractive.	-	-	1 (16.7)	4 (66.7)	1 (16.7)	4.00	0.63
13	The 'Easy Learning Basic Pattern For Beginners' teaching aid can help students to design patterns.	-	-	-	5 (83.3)	1 (16.7)	4.17	0.41
14	Clear instructions in the 'Easy Learning Basic Pattern For Beginners' teaching aid make it easy for students to understand the steps of drafting.	-	-	-	5 (83.3)	1 (16.7)	4.17	0.41
15	This teaching aid can teach me to put the pattern marks correctly.	-	-	2 (33.3)	4 (66.7)	-	3.67	0.52
16	I can quickly design patterns using this teaching aid.	-	1 (16.7)	1 (16.7)	4 (66.7)	-	3.50	0.84
17	The 'Easy Learning Basic Pattern For Beginners' teaching aid has sparked my interest and focus in the classroom.	-	-	3 (50.0)	2 (33.3)	1 (16.7)	3.67	0.82

Effectiveness of Easy Learning Basic Pattern for Beginners in terms of students' interest in creating patterns.

The result show that the use of Easy Learning Basic Patterns for Beginners as a teaching aid can increase students' interest towards the topic of pattern making in sewing with a mean score of 3.88. According to Mohd Khairi Shafie (2018), computer and multimedia usage trigger learners' interest to the teaching content and can promote the retention of knowledge in the long term memory. Table 2 shows the students' agreement on the use of Easy Learning Basic Pattern for Beginners in increasing their interest in the topic of dress making within the field of sewing.

Table 2

Effectiveness of Easy Learning Basic Pattern for Beginners In Terms Of Students' Interest In Creating Patterns.

No	Questions	Number of Students/People (Percentage/%)					Mean	Standard Deviation
		(1) Strongly Disagree	(2) Disagree	(3) Not Sure	(4) Agree	(5) Strongly Agree		
1	I really like the topic of sewing in Home Science.	-	-	2 (33.3)	1 (16.7)	3 (50.0)	4.17	0.98
2	I feel that the topic of drafting takes a long time to complete.	-	-	-	5 (83.3)	1 (16.7)	4.17	0.42
3	Learning to design patterns using the teaching aid is exciting.	-	1 (16.7)	1 (16.7)	3 (50.0)	1 (16.7)	3.67	1.03
4	Learning to design patterns using the teaching aid makes made me love to draw patterns.	-	1 (16.7)	-	4 (66.7)	1 (16.7)	3.83	0.98
5	I can easily understand the patterns by using the 'Easy Learning Basic Pattern For Beginners' teaching aid.	-	1 (16.7)	-	5 (83.3)	-	3.67	0.82
6	I become more focused on drawing patterns when using this teaching aid.	-	-	1 (16.7)	3 (50.0)	2 (33.3)	4.17	0.75

7	The learning environment will be more fun when teachers use the 'Easy Learning Basic Pattern For Beginners' teaching aid.	-	-	1 (16.7)	5 (83.3)	-	3.83	0.41
8	Using the 'Easy Learning Basic Pattern For Beginners' teaching aid makes it a lot more fun to design patterns in the classroom.	-	-	1 (16.7)	4 (66.7)	1 (16.7)	4.00	0.63
9	The 'Easy Learning Basic Pattern For Beginners' teaching aid makes me more excited to set up patterns in the classroom.	-	-	3 (50.0)	3 (50.0)	-	3.50	0.55
10	I am more excited to attend practical classes when teachers use this teaching aid.	-	-	1 (16.7)	4 (66.7)	1 (16.7)	4.00	0.63
11	I will use this teaching aid to set up a pattern drafting job.	-	1 (16.7)	1 (16.7)	3 (50.0)	1 (16.7)	3.67	1.03

Discussion and Conclusion

This study has proposed a newly developed teaching aid related to the subject of sewing which is the steps of drafting patterns. The construction of this teaching aid aims to serve as a potential solution to the problems faced by students in drafting patterns. It adds to the collection of existing teaching aids in the field of teaching sewing with the objective of easing the teachers' task while encouraging them to interact with their students in their own capacity.

The Easy Learning Basic Pattern for Beginners teaching aid was developed using media such as the Microsoft PowerPoint. This is due to its ease of use during both the development process as well as during the actual teaching and learning sessions by teachers. According to Hardiputra, Kristiantari, and Hum (2014), PowerPoint is a computer software specifically designed for graphic presentation that can be used as a learning medium.

This study also looked at the effectiveness of Easy Learning Basic Pattern for Beginners as a teaching aid that promotes students' understanding towards the design of patterns. It

was found that students' perception towards the motion is high where almost all respondents agreed that the teaching aid better explained the steps of drafting patterns because it was initially designed to help them understand the steps of drafting.

The findings of this study also reported that the respondents have high perception towards the proposed teaching aid because it is customer friendly, has attractive style, design, and colour, and easy to be used by all. This is in line with past studies which posited students' positive perception to the use of teaching methods like computer-assisted learning or interactive PowerPoint software that help to improve their understanding and mastery of particular concepts (Aszoura, 2007). Therefore, the overall objective of this study has been achieved.

Furthermore, it was found that students have high perception of interest towards Easy Learning Basic Pattern for Beginners. The majority of respondents agreed that the teaching aid triggered their interest on design patterns as it facilitates their understanding and focus when designing patterns. In addition, the use of this teaching aid also makes the classroom more enjoyable and the students become more excited to attend classes. According to Shafie (2018), the use of computers and multimedia is said to stimulate students' interest to the content of teaching and leads to better preservation of knowledge in the long term memory.

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