The Development of Exploding Box Learning Media in Sex Education for Elementary School Students

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Abstract: Along with the development of the era, there are many social problems that arise in Indonesia, one of them is sexual harassment by sex criminals. Children are often victims of sexual abuse. One way that can be done to prevent the occurrence of this case is by providing early sex education to children, assisted by the Exploding Box learning media. In the Exploding Box, there is some basic knowledge about sex, so it is hoped that it can make things easier for parents and educators to explain sex education to their children and students. The purpose of this study is to describe the development steps and determine the feasibility of the Exploding Box as a medium for sex education for primary school-aged children. The method used is research and development (R&D). The results obtained are that the child knows some of the basics of sex education but does not know that the knowledge that they have is actually sex education, while parents experience difficulty in explaining sex education to children because they feel taboo if they have to explain directly, therefore educational media that can explain it are needed. Sex education to children with an attractive but not lost goal. Thus, the exploding box can be developed into a sex education medium for elementary school children with material adapted to sex education. In its development, the material was adapted to a grid, which was then validated and refined to obtain a proper sex education media.

Keywords: sex education, primary school-aged children, exploding box.

INTRODUCTION

Along with the development of the era, many social problems that arise in Indonesia, one of them is sexual harassment by sex criminals. Children are often victims of sexual abuse. LPSK (Witness and Victim Protection Agency) noted that there was an increase in cases of sexual violence against children that occurred since 2016 with a total of 25 cases, then increased in 2017 to 81 cases, and the peak in 2018 was 206 cases (Detik.com, 2019). There were 236 cases of child sexual abuse that occurred between January and May 2019 (Tempo.com, 2019). This data does not include cases of sexual harassment that are not reported to the authorities.

One way that can be done to prevent the occurrence of this case is by providing early sex education to children. Obstetrics and gynecology specialist Nugraha revealed various reasons why giving sex education from an early age to children is very important, one of which is to protect children from sexual abuse (Kompas.com, 2016). If the understanding of child sex education is low, it can lead to a wrong understanding and have an impact on negative things that lead to immoral behavior (Mansyur in Analisadaily.com, 2016).

Sex education is the knowledge that discusses the function of the genitals as a means of reproduction, development of the genitals in women and men, menstruation and wet dreams, to issues of marriage and pregnancy (Abduh and Wulandari, 2016). This sex education can be given a direct instruction by parents or given formally in the school environment. However, this is still often considered taboo and some parties sometimes find it difficult to explain it. Meanwhile, in Indonesia in the world of education, schools have never provided sex education material in the learning. Sex education is also not included in the school curriculum. Besides, the educators felt that they were not able to provide sex education

to their students. So that children find out by themselves when they are teenagers.

Based on the background described above, we innovated by creating an Exploding Box, which is a learning medium that can help parents and educators to explain sex education to elementary school children. Exploding Box is a box like a gift made of paper which when opened contains various creative surprises in various forms of expression through creativity. Exploding Box has many kinds, each person has their way of channeling their creativity. This is what makes the contents of the Exploding Box various.

This Exploding Box learning media was chosen because of its unique design so that it can attract primary school children, especially in learning sex education for elementary school children, and its easy manufacturing techniques so that parents and educators can make the Exploding Box according to their creations. each. Also, in the Exploding Box, there is some basic knowledge about sex so that it is hoped that it can make it easier for parents and educators to explain sex education to their children and students.

This article is intended to describe the steps for developing the Exploding Box as a medium for sex education and to determine the feasibility of the Exploding Box as a medium for sex education for primary school-aged children. The results of this study are expected to be used by all groups, especially parents and educators to explain sex education to elementary school children.

METHOD

The type of research taken by researchers is development or Research and Development (R&D). The development steps chosen by the researcher refers to the ten steps of implementing the research and development strategy according to Borg and Gall in Sukmadinata (2009, pp. 169 170). The author carried out the research for three months, namely from July to September 2020, due to the limited research time, the authors simplified the stages of the research procedure. This simplification of stages is based on the opinion of Borg and Gall in Emzir (2011, 271) which suggests limiting research on a small scale, including the possibility to limit the stage of research.

The first stage is to carry out research and data collection. At this stage, the determination of the idea and purpose of making the product is carried out, namely determining the exploding box as a learning medium by distributing questionnaires to research subjects. The subjects taken were parents and elementary school students grades 1-4 who lived in four different places, namely Yogyakarta, Purbalingga, Magelang and Yogyakarta.

The second stage is planning for the product creation. Before carrying out the manufacture of the product all the necessary tools and materials are prepared. The tools used to make the exploding box are ordinary scissors, corrugated scissors, rulers, pencils, pens, printers, laptops, rubber erasers. In addition, the materials used are jasmine paper with a size of 109 x 79 cm, cardboard paper with a size of 109 x 79 cm, folding paper with a size of 30 x 30 cm, a size of 20 x 20 cm, and a size of 16 x 16 cm, A4 glitter paper, glitter paper with a size of 40 x 60 cm, organza ribbon, satin ribbon, stick glue, double tape, liquid paper glue, photo paper, hvs paper, and priter ink. Next, compile the exploding box idea as outlined in the picture or writing that will be placed in the box and determine the size

of the selected box.

The third stage is product development. The product development stage includes making boxes according to the planned size, adding decorations according to the content created, attaching all content to each layer, and finishing the box.

The fourth stage is product validation. Validation is carried out to determine the feasibility of the product. The first validation was carried out by an Educational Psychology lecturer to assess

the feasibility of the media and the material feasibility of the product, then a stage 1 revision was carried out. The second validation was carried out by a psychologist to determine the feasibility of the material on the product, then a stage 2 revision was carried out. After revision 1 and revision 2, the product was refined.

The data obtained from the validation results were then analyzed to assess whether or not the resulting product was a learning medium for educators to explain sex education to elementary school children. This assessment instrument is a questionnaire that has four answer choices according to the content of the questions, each of which has a different score. The assessment score for each of these answer choices can be seen in the following table:

Table 1. The assessment score for each of these answer choices

Rating Score	Statement of Interest Assessment	Quality Assessment Statement
3,26 - 4,00	Very interesting	Very good
2,51 – 3,25	Interesting	Good
1,76 – 2,50	Less attractive	Not good
1,01 – 1,75	not attractive	Bad

The total assessment score can be found using the formula:

$$\text{assessment score} = \frac{total\ score\ on\ the\ instrument}{total\ score\ of\ the\ highest\ score} \times 4$$

Table 2. The Table of Assessment Score Conversion Statement of Attractiveness Value and Quality Statement

Answer Options	Answer Options	Score
Very good	Very relevant	4
Good	relevant	3
Not good	Less relevant	2
Bad	Irrelevant	1

(Suryanto, 2009, 227)

From the explanation above, it is concluded that the exploding box is considered attractive, good, and feasible if the assessment score of the validator and research subject is at least 2.51. The opposite is also true.

RESULT AND DISCUSSION

Research and data collection

The author determines the ideas and objectives of making the exploding box as a learning medium by considering the results of the questionnaire that the author has distributed online at the beginning of the study. The questionnaire filler subjects consisted of elementary school students in grades 1-4 and parents of students, each of which totaled 30 people. The results of the questionnaire are described in the following table:

Table 3. Questionnaire for Elementary School Students

No	Percentage	Questions asked
1.	68,6%	Children never learn about reproductive organs.
2.	82,9%	The child does not know what sex education is.
3.	77,1 %	Children never get sex education from other people.
4.	65,7%	Children never get sex education when chatting casually with parents.
5.	68,6%	Children already know the specific limits of men and women.
6.	91,4%	Children feel allowed to play with the opposite

		sex.
7.	97,1 %	Children are taught by their parents about how to protect themselves from others.
8.	94,3%	Children know how to take care of themselves.
9.	88,6%	Children easily understand sex education through learning media.
10.	85,7%	The child knows the parts of the body that no one else should touch.
11.	94,3%	Children know how to dress modestly.
12.	82,9%	The child knows when entering the permission room in advance.
13.	91,4%	Children know that if they want to pee, they have to be in the bathroom.
14.	88,6%	Children feel embarrassed if they undress in public.
15.	100%	Children know courtesy to parents.

Table 4. Questionnaire of Parents of Students

No	Percentage	Questions asked
1.	70%	Parents feel close to their children.
2.	93,8%	Parents have heard of cases of child sexual abuse
3.	93,8%	Parents agree that cases of abuse occur for lack of children's understanding of basic sex education
4.	96,9%	Parents have a responsibility in providing sex education basic child.
5.	87,5%	Parents plan to provide basic sex education to their children.
6.	87,5%	Parents have difficulty explaining basic sex education on to the child.
7.	87,5%	Parents feel it is still taboo to talk about sex education in front of their children.
8.	96,9%	Parents need media to facilitate the provision of education basic sex to the child.
9.	93,8%	Parents need media that is easy to operate.
10.	96,9%	Parents need interesting and easy learning media understood.

Based on the results of the questionnaire, it can be concluded that the child knows some of the basics of sex education but does not know that the knowledge he has is sex education. On the other hand, parents experience difficulty in explaining sex education to children because they feel taboo if they have to explain directly, therefore it is necessary to have a media that can explain sex education to children in an interesting way but the goals to be achieved are not lost After obtaining a strong background, the authors compiled material on sex education by referring to questionnaires and sources on the internet then poured it into a material grid that would be published in the exploding box.

Table 5. Material Grid

No	Attitudes / values	Indicators
1.	Recognizing your own limbs	• Know the names of the limbs • Know the function of the limbs
2.	Knowing the difference between men's and women's clothing	• Knowing clothes for men and women • Know the function of clothes • Knowing that clothes are polite and impolite
3.	Get to know the people around you	• Knowing the family tree • Know the people around us

4.	Know how to care for and take care of yourself	• Know how to care for the body • Know which parts of the body are sensitive and who can touch them

The planning stages

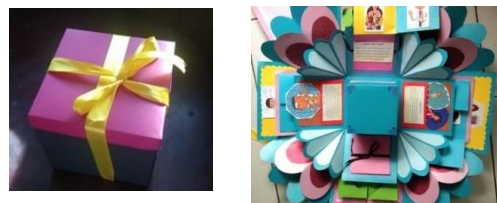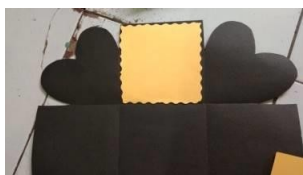Making material by developing a grid that has been made.

Product development stage

a. Making boxes according to the planned size

b. Adding decorations according to the content created

c. Pasting all content on each layer

d. Box completion

Validation

a. The validation stage is carried out by an educational psychology lecturer.

Table 4. Material validation sheet

No	Description	Score	Answer options
1.	The contents of the exploding box learning media are valid and not deviates from sex education in general	4	Very good
2.	The contents of the exploding box learning media are in accordance with need for sex education.	4	Very good
3.	The contents of the exploding box learning media are in accordance with elementary school age children.	4	Very good
4.	Images / illustrations contained in learning media The exploding box is aligned with the stated intent.	3	Good
5.	Language contained in learning media The exploding box is unambiguous.	3	Good
6.	The language used is quite easy to understand elementary school students.	4	Very good
7.	A series of sentences on exploding learning media box arranged coherently.	4	Very good

Assessment score = (Very Good)

Validation was carried out by a lecturer in educational psychology at Yogyakarta State University, Mr. Agung Hastomo. From the two scores of validation results obtained, it can be concluded that the exploding box is a proper sex education learning medium.

b. Revision stage I

According to the advice given by validator 1 to change the material for making the box from cardboard to jasmine paper. In addition, initially the image was only on layer 2 and 4, it was changed to each layer that contained an image.

c. The validation stage is carried out by a psychologist

Table 6. Material Validation Sheet

No	Description	Score	Answer options
1.	The contents of the exploding box learning media are valid and not deviates from sex education in general.	2	Not good
2.	The contents of the exploding box learning media are in accordance with need for sex education.	3	Good
3.	The contents of the exploding box learning media are age-appropriate primary school children.	2	Not good
4.	Images / illustrations contained in learning media The exploding box is aligned with the stated intent.	3	Good
5.	The language contained in exploding learning media unambiguous box.	3	Good
6.	The language used is quite easy to understand for student primary school.	4	Very good
7.	A series of sentences in the exploding box learning media coherently arranged.	4	Very good

Assessment score = very good

The material validation was also carried out by a psychologist from Bali, Tarate Timur Raviyoga, S. Psi. with a total of 21 out of 28 points. If these points are converted, the validity score of the material is 3.00 or classified as good. The validation results show that the exploding box learning media is feasible to be applied.

d. Revision stage 2

According to validator 2's suggestion where the material is more clarified regarding sex education, the age of primary school children is more specified and the use of pictures that more describes sex education.

e. Final product improvement.

Improvement by re-creating the exploding box according to the suggestions from the validator and box after being validated improving the initial material grid.

Based on the results of a questionnaire distributed to students and parents as research subjects, the results show that a medium that can explain sex education to children is needed, but the goals to be achieved are not lost After going through two validations and two revisions, the exploitation box can be used as a learning medium for teaching education based on children based on the validation result score which is in accordance with the initial hypothesis taken by the author.

CONCLUSION

The exploding box can be developed into a sex education medium for children by replacing the material in the box that is tailored to the purpose of sex education. In its development, the material is invincible with grids, which are then validated and refined to obtain appropriate sex education media for school-age children, especially those aged 7- 10 years. Exploding box goes through two validations, namely validation from media experts and material experts where the results show that exploding boxes are worthy of being a medium for sex education for elementary school aged children.

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