Development of Instructional Video Media in Increasing Sex Education Knowledge for Students with Hearing Impairment

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Abstract: Students with hearing impairments need an instructional video media which can make them easier in understanding a theory about sex education especially menstruation. The aim of this study was to make a product which was instructional video media entitled “Cakap Hadapi Menstruasi”. The development of the product was adapted. The validation score from media experts was 96% (worthy to use). The validation score from material experts was 97% (worthy to use). Moreover, the result of the implementation showed the average score of students’ pre-test was 42 and post-test was 91. It means that the product was effective.

Keywords: Hearing impairment, Sex education, Menstruation.

Adolescence is defined as a time when a person shows signs of puberty and continues until sexual maturity is achieved. This is felt by every human being is no exception of children with special needs. In this case, there are many things that must be known by early adolescents who have entered puberty, one of them is about maintaining their reproductive organs. Provision of knowledge on reproductive health can be provided through formal and non formal education to learners.

Students are not only normal children but also children with special needs, because all children have the right to education. Based on the Law on National Education System (Sisdiknas) no. 20 of 2003 article 32 states that, “special education is education for students who have a level of difficulty in following the learning process because of physical, emotional, mental, social, and / or have the potential for intelligence and special talents”. So that educational services provided to children with special needs must be in accordance with the needs and specificities of children.

Hearing impairment/Deaf people are one of the children with special needs who also have the right to get a decent and quality education. “Deaf people are individuals who have obstacles in hearing, both permanent and non-permanent” (Pandji, 2013). As a result, communication that occurs between deaf students and teachers often occurs misperceptions. Especially if learning is done verbally, deaf children have difficulty to capture the message that the teacher wants to convey. In the learning process, the result of hearing impairment of deaf children uses visual function as compensation. The eye as a means of functioning as a sense of sight is the main alternative before the others (Efendi, 2006). So, in the learning process it is often wrong to interpret the information or material provided by the teacher.

One of the functional education that is needed by students is sexual education or commonly referred to as sex education. According to Rachmawati (2012) Sex education is an effort to provide knowledge about biological, psychological, and psychosocial changes as a result of human growth and development, or with another understanding that sex education is an attempt to provide knowledge about the function of reproductive organs and instill moral ethics and religious commitment, so that, no sexual deviations occur.

Sex education basically has a broad understanding, but many in the community interpret it with the narrow meaning of assuming that sex education is only about aspects of learning in sexual relations. Though there are many things discussed in sex education such as learning about the health of reproductive organs, sexually transmitted diseases including the process of menstruation. Menstruation is an event of the collapse of the lining of the uterine wall due to not being fertilized by sperm.

The method of delivery of knowledge about sexual education to children with special needs is different from the children in general. So, it is needed a learning media that can facilitate deaf students in accepting learning by using video media.

Based on research conducted by Putri (2012) with the title Effectiveness of Using Video Media to Increase the Introduction of Regional Musical Instruments in Social Studies Learning for Children with Mild Disabilities in SDLB 20, Solok City explained that learning conducted with video media was effective in making children receive the learning for her. This media can also generate enthusiasm and enthusiasm for children because they have never used this media before. Children are not bored in class, not sleepy.
and this is very good for the classroom atmosphere. Therefore, this learning video is very suitable when applied to deaf learners in the delivery of material regarding special sex education about menstruation.

For this reason, a learning video for “Cakap Hadapi Menstruasi/Capturing Menstruation” is made, which contains material about menstruation, including understanding and the process of menstruation, pre-menstrual symptoms, dysmenorrhea, pads, and how to maintain the health of reproductive organs. This video consists of an interesting blend of illustrations, easy-to-understand language, and is also equipped with a sign language translator, so that, it can increase the knowledge of menstruation for deaf students.

METHOD

The research and development method using procedural research and development proposed by Borg and Gall (1989) in Sukmadinata (2016) has been simplified into seven stages as used by Gooch in Hasyim (2016).

The procedure for implementation is through seven stages such as: (1) Research and data collection; (2) Planning; (3) Development of initial product designs; (4) Initial product validation; (5) Revision of the initial product; (6) Field trials, and (7) Revision of the final product. The procedures carried out in this research and development are as follows. Firstly, research and data collection by making observations and interviews with principals and students about the complaints of students when menstruating, the difficulties faced by teachers and principals related to menstruation experienced by students, as well as providing basic menstrual material for participants students who have menstruated. Whereas information extraction from students includes when students experience their first menstruation, what they know about menstruation, how they put and choose pads, how they dispose of pads, and what they do when cleaning their reproductive organs. This data includes qualitative data and it is used as initial data to consider what material will be included in the learning video.

Secondly, Planning the manufacture of products in the form of learning videos whose content is tailored to the problems or difficulties experienced by students before menstruation namely the introduction or definition of menstruation, normal and abnormal menstruation and pre-menstrual symptoms (PMS). Then, when experiencing menstruation that includes the process of menstruation, dysmenorrhoea, and the selection and use of pads. Then at the time after menstruation, which is about how to remove the correct sanitary trash, choose good food to avoid premenstrual symptoms, and how to maintain cleanliness and health of the reproductive organs during menstruation.

Thirdly, the development and design of the initial product begins with the making of a storyboard to compile a series of videos that will be made containing illustrations made by adjusting the age of the students and adjusted to the material based on the results of observations and interviews. Then, adding text and explanations of material side by side with illustrations using simple language, so that, students can easily capture the material provided. The existence of sound recording material explanations and background is aimed at making the media can be used for all learners including deaf students, so that, the utilization of this media is broader. In addition, this video is equipped with a translator video in the sign language SIBI (Indonesian Sign Language System). Then all these components are put together and packaged in CDs that are ready for use in learning activities.

Fourthly, the initial product validation was carried out by both media and material experts. Fifthly, the initial product revision was to make improvements to product deficiencies and weaknesses after an assessment by both material and media experts. Revisions were carried out based on the responses and input from media and material experts in the form of adding material or even providing additional illustrations to facilitate students in digesting the material.

Sixthly, the field trials are product testing activities that have passed revisions from media and material experts. In this case, it was involved 9 data subjects who are deaf students in YPTB SDLB-B who have experienced menstruation. The tests are done by answering questions on the pre-test questions that are answered before the students use Video learning media. Pre test is used to measure how much students’ knowledge about menstruation. Then, they were given a matter of post-test to determine the level of effectiveness of products in improving learners’ knowledge about menstruation. Post test was intended to find out whether there was an increase in students’ knowledge after being given material by utilizing learning video media. This data was included in quantitative data. This data was calculated using the formula adapted from Astuti (2016) to calculate the scores of each subject and the adaptation formula from Arikunto (2012) is used to calculate the average value of the entire subject. This average difference in value indicates how far the learners increase about menstruation before and after using learning video media. Then, to measure the level of effectiveness of the media is calculated by looking at the achievement of students based on the Minimum Completeness Criteria (Kriteria Ketuntasan Minimal/KKM) that has been determined by the school and calculated using a formula that is based on Purwoko (2001). While the level of effectiveness of the use of the product using the evaluation criteria of the trial subject evaluation results proposed by Arikunto & Jabar (2014).
Table 1. Expert Validation Results

<table>
<thead>
<tr>
<th>No.</th>
<th>Validator</th>
<th>Percentage</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Media</td>
<td>96%</td>
<td>Very Valid</td>
</tr>
<tr>
<td>2.</td>
<td>Material</td>
<td>97%</td>
<td>Very Valid</td>
</tr>
</tbody>
</table>

Table 2. The result of Field Trial

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>AML</td>
<td>100</td>
</tr>
<tr>
<td>2.</td>
<td>JHN</td>
<td>90</td>
</tr>
<tr>
<td>3.</td>
<td>GTA</td>
<td>80</td>
</tr>
<tr>
<td>4.</td>
<td>AUR</td>
<td>100</td>
</tr>
<tr>
<td>5.</td>
<td>DIV</td>
<td>100</td>
</tr>
<tr>
<td>6.</td>
<td>RRA</td>
<td>80</td>
</tr>
<tr>
<td>7.</td>
<td>SBL</td>
<td>90</td>
</tr>
<tr>
<td>8.</td>
<td>DEV</td>
<td>90</td>
</tr>
<tr>
<td>9.</td>
<td>RVA</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>820</td>
</tr>
</tbody>
</table>

Seventhly, the final product revision was carried out by using a reference from the results of field trials to improve the product if there are still deficiencies in the product, so that, the material presented can be digested in a maximum, complete, and comprehensive manner when it was learned by students.

**FINDINGS AND DISCUSSION**

**Findings**

There are results from 2 expert validations as follows in table 1. Based on the acquisition, the results of the validation of media experts showed a score of 96% based on the criteria of the validity level of the product included in the category of very valid or could be used without revision with a range of 85.01% - 100.00%. While the acquisition of validation scores from material experts shows a figure of 97% which is based on the validity criteria of the product, it is also included in the category of very valid or can be used without revision with a range of 85.01% - 100.00%. The trial was conducted on 9 students and it was founded an average of the total value of students based on the final test (post test) with the data in table 2.

The results obtained from the average score of the trial subjects showed the number 91, so that, according to the criteria for the effectiveness of the use of learning media included in the category is very valid or can be used without revision, namely with a range of 81.00 - 100.00. Based on the results of validation and testing, the video media of learning “Facing Menstruation/Cakap Hadapi Mentrusi” is very suitable to be used to increase knowledge about menstruation for deaf students in SDLB-B YPTB, Malang.

**Discussion**

According to Mangunsong (2009), deaf people are those whose hearing is not functioning, so that, they need exceptional education services. While deafness according to Smart (2010) is a general term used to refer to the condition of a person who experiences a disturbance in the sense of hearing.

Deaf/hearing impairment is very influential in the lives of deaf students especially in capturing information in daily life.

Thus, in the learning process, the result of hearing impairment of the deaf child utilizes his sense of sight as a means to understand things that are around him because the eye is the most important sense alternative before the other senses according to Efendi (2006). This condition causes the deaf students have difficulties in receiving knowledge, especially regarding many things that are still abstract such as sexual education.

According Rachmawati (2012), sexual education is an attempt to provide knowledge about the function of the reproductive organs and inculcate ethical morals and religious commitments in order to avoid deviations of sexual behavior. Sex education basically has a broad understanding, but many in the community interpret it with the narrow meaning of assuming that sex education is only about aspects of learning in sexual relations. Though there are many things that are discussed in sex education such as learning about the health of reproductive organs, sexually transmitted diseases including the process of menstruation. Menstruation experienced by all women in the world is no exception for children with special needs.

It is needed an appropriate educational method to explain many things that are abstract such as menstruation for deaf students. Based on the problems found in the field, sexual education about menstruation is very necessary for children with special needs, especially deaf children. But in the delivery requires a media that can facilitate deaf children can easily understand and construct their knowledge about menstruation that is by using the video media “Cakap Hadapi Mentrusi” (“Facing Menstruation”) learning which is packaged in an interesting manner that is equipped with illustration pictures, text, sound effects, recording material explanations, and sign language interpreter SIBI (Indonesian Sign Language System). The content includes: (1) the process of menstruation, (2) premenstrual symptoms, (3) dysmenorrhea, (4) dressing, (5) how to maintain the cleanliness of the reproductive organs.

The results of the validation data analysis using the formula based on Putri (2012) in which the
validation of media experts had a score of 96% and the validation data of material experts had a score of 97% based on the guideline of the validity level criteria of the product included in the category of very valid or can be used without revision that is with a range of values of 85.01% - 100.00%. This suggests that the learning video “Cakap Hadapi Menstruasi”(Facing Menstruation) is very suitable to be used as a medium that can increase the learner’s knowledge about menstruation. The suggestion and input is the addition of material about the understanding of pre menstrual symptoms or pre menstrual syndrome (PMS) as well as the addition of material about behavioral factors that can reduce symptoms of dysmenorrhea.

The results obtained from the average score of the trial subjects at the pretest obtained an average score of 42 and in the post test an average score of 91 was obtained. This shows that there was an increase in students’ knowledge that can be seen from the data, namely an increase in the average score of students with a difference of 49. Then, to measure the level of effectiveness of the media obtained from the calculation based on the value of the KKM using the formula adapted from Purwoko (2001) with the results of 100% of students score above the KKM, so that, this media is said to be effectively used in learning according to the results analysis criteria evaluation of the trial subjects proposed by Arikunto & Jabar (2014), the 100% value is included in the category of very effective.

Based on previous research conducted by Putri (2012) stated that learning conducted with video media turned out to be effective in making the children receive learning given to them and also can cause enthusiasm and enthusiasm for the children because they have never used this media before, so that, the children are not bored in class, not sleepy and this is very good for the classroom atmosphere.

Whereas based on research conducted by Febriana (2014) with the title Evaluation of the Effectiveness of Animated Videos Hand Washing with Soap as One Alternative for the Application of Clean and Healthy Life Behavior (PHBS) for Children with Impairment (Qualitative Study in YPAC SLB Jember Regency) explained that the research was held to assess the effectiveness of video media animation handwashing with soap as an alternative application of Clean and Healthy Behavior (PHBS) in children withdrawal. Use media is a learning video developed in accordance with the characteristics of deaf students who aim to increase the knowledge of deaf students about menstruation. The video is equipped with interesting illustrations and translators in SIBI sign language, so that, the students can easily understand the contents of the material contained in the “Cakap Hadapi Menstruasi”(Facing Menstruation) learning video. This video media has been validated by 2 experts and has been tested on 9 deaf students and shows very feasible and very effective results for use in learning.

It is expected that the next researcher and developer to be more innovative in making learning media especially to help facilitate deaf students in understanding the material, so that, their knowledge increases. The subject of the research was to be broadened, both students and schools used as testing materials, so that, the learning media of “Cakap Hadapi Menstruasi”(Facing Menstruation) can be felt the benefit by many people.

REFERENCES


