

ONLINE EDUCATIONAL MEDIA ON NUTRITION AND REPRODUCTION FOR EARLY TEENS

Khusnul Khotimah

khuznulkhotimah@gmail.com

Lecturer

State University of Surabaya

Surabaya, Indonesia

ABSTRACT

This study aims to (1) determine the level of knowledge of nutrition and reproduction on early teens, (2) develop an online educational media about nutrition and reproduction, (3) determine the effectiveness of the development of online media education on nutrition and reproduction. This type of research, including research and development. The procedure in studies using a model Plomp (1997), the stages are investigation, design, realization, evaluation and implementation. Respondents are adolescents aged 16-18 years or high school students. The research was carried in two high school in Surabaya, East Java, Indonesia. Retrieval of data by the method of observation, interviews, documentation and testing. Data were analyzed with T-test and descriptive quantitative. The results showed 1) the initial knowledge of nutrition and reproduction adolescents in less category (90.32% and 83.87%), especially on the topic of drugs, cigarettes, food and health, 2) the development of online education media about nutrition and reproduction rated valid by experts with a value of 4.53. Practicality devices rated from the ease of use of the device, field constraints and student responses included in the criteria and the practical aspects of the effectiveness of the device is considered to be very effective, 3) Cognitive ability teenager produced a score of 72.72 pretest and post test 81.10, 65.00 and affective abilities pretest and post test 82.10 meaningful learning outcomes teens from using the online nutrition education and reproductive showed improvement. T-test against the pretest and post test scores also showed a highly significant difference.

Key words: development, online media, nutrition, reproduction, early teens

A. INTRODUCTION

Adolescence is a figure of the young generation with unique characteristics. They are not children but not adults as well. Teens trying to show a different social status in the process of searching for her identity and presence in the community. They also want to try new things and easily replicate and affected the surrounding environment. Adolescence is the final phase of the process of human growth and development. So the nutritional and health status is a factor that determines the quality of the physical teenagers. The person's condition in adulthood will be determined by the state of nutrition and health during adolescence (Husaini, 1989). Optimal nutritional status is determined from the knowledge of nutrition, economic and cultural factors (Supariasa, 2003). Thus, nutrition education should be included in the school curriculum.

National Education philosophically view humans as individuals with rights and obligations are living in a global society with all its challenges. So education has the goal to

develop the potential of students in order to be fully human and humane, intelligent intellectually, socially, emotionally and spiritually.

Some facts discovered that teens have been doing forbidden relationships. The data revealed by the Director of Youth and Protection of Reproductive Rights National Family Planning Coordinating Board (BKKBN) M Masri Muadz states, there are 40%-45% of adolescents between 14-24 years stated that they had had sex before marriage. The impact of free sex, every year there are an estimated 2.3 million cases of abortion, of which 20% were done by teenagers. This shows the need for the provision of reproductive education for adolescents.

Research conducted by the government (BKKBN) on reproductive health education ever undertaken in the high school district Majalengka showing that (1) educators are teacher Counseling, biology, religion, physical education and health, citizenship, (2) teaching facilities are very limited, (3) teaching materials are available but have not been structured and systematic, (4) a method of teaching only with lectures, question and answer, discussion, role play and assignments. Limitations of teaching methods and media that are used cause learning tend to be monotonous and uninteresting. Previous research on the use of multimedia in reproductive health education was effective in improving cognitive abilities and affective high school students (Afifah, 2010).

However, the media has a weakness in the limited affordability for young people in school as well as the sustainability of the media. Reality has prompted researchers to develop educational media that is able to overcome these deficiencies through the use of Internet-based media (online).

This study intends to follow up the results of previous studies, focusing on students' cognitive learning outcomes of the implementation of the reproductive health education based internet. Utilization of online media as a medium of education is because the media is closer to the real situation, more participatory, accessible and affordability are very spacious (Heinich, 1996). According Sukarno (2010) with a system of online learners will be easier, more widely, as a source of learning a lot, not only from the teacher alone, but a lot of resources that can be accessed via the Internet. In terms of where and when the learning process is more efficient and effective because students can access from anywhere and at anytime. Another plus is that online education can be reached by the entire community both formal education and who do not have the opportunity school. Specifically, this study is

primarily intended for: (1) determine the level of initial knowledge of nutrition and reproduction of high school students, (2) developing the education of nutrition and reproduction online, (3) determine the result of the development of the nutrition education and reproductive online high school students on the cognitive aspects and affective

B. RESEARCH DESIGN & METHODS

This type of research, including research and development with a model of educational development Plomp (1997) through five stages, namely: (1) investigation; (2) design; (3) the realization; (4) evaluation and (5) implementation of the device. Respondents were middle adolescents aged 16-18 years, or at the level of high school. The research was carried in two places, namely Vocational High School and 1 and 6 in Surabaya.

Retrieval of data by the method of observation, interviews, documentation and testing. Primary data consists of (1) the knowledge of students about nutrition and reproduction, (2) the effectiveness of the model student questionnaire responses (3) practicality of the model student learning outcomes, (3) cognitive abilities and affective student as a result of the development of the model. Secondary data such as student data, identification of nutritional and reproductive website that already exist, the initial nutritional knowledge, students' perception of reproductive health, nutrition topics and interviews adolescent reproductive specialist.

The level of knowledge of nutrition, reproduction knowledge of the respondent or the effectiveness of the model assessed on respondents' answers to several questions about the nutritional needs of adolescents, eating habits and behavior / lifestyle, then categorized into good nutrition knowledge if the answer is > 80% correct, while if the answer 60-80% correct and less if answered < 60% correct (Khomsan, 2000).

Practicality is the model used to determine the use of the model by the respondents, who assessed the Guttman scale. Affective abilities of respondents rated with Likert scale and given a score of 2 for a correct answer, a score of 1 for hesitation, and a score of 0 for a wrong answer, then categorized into good, fairly good and less good. Data prior knowledge and development models that have been processed then presented as percentages and analyzed descriptively, while data on the cognitive and affective abilities teenagers were analyzed by t-test different.

C. RESULTS

Based on the research results, it can be concluded that: (1) Knowledge of nutrition and reproduction adolescents are still in the low category (61.5% and 70.3%), especially on the topic of drugs, food and health, reproductive organs and sexual diseases, (2) the development of online education media about nutrition and reproduction rated valid by experts with a mean value of 4.58; and practicality devices rated from the ease of use of the device, field constraints and student responses included in the practical criteria and aspects of the effectiveness of the device is considered to be very effective, (3) the results of the development model of nutrition education and reproductive online showed the average score posttest on cognitive abilities and affective better than the mean pretest and there are significant differences from both.

This means the development of media quite effectively improve the ability of adolescents, cultivating the character of the attitude of independence and curiosity for obtaining information, foster interest in reading habit and responsibility in performing tasks in life.

Suggestions from this research that needs to be improved and continuous improvement of the media education on nutrition and reproduction so that the information provided is kept up to date and relevant to adolescent development, as well as the need to expand the scope of targeted online media.

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