

## DEVELOPING A VIDEO TUTORIAL FOR MAKING FRESHWATER CLAM MEATBALLS (*Pilsbryoconcha expressa*) BASED ON ENTREPRENEURIAL VALUES FOR SENIOR HIGH SCHOOL

Afreni Hamidah <sup>1a)</sup>, Ervan Johan Wicaksana <sup>1b)</sup>, Rani Puji Saputri <sup>2)</sup>  
<sup>1a, 1b, 2)</sup> Pendidikan Biologi PMIPA FKIP Universitas Jambi  
*e-mail:* ervan\_jw@unja.ac.id

### *Abstract*

The purpose of this research is develop a video tutorial for making freshwater clam meatballs (*P.expressa*) based on entrepreneurial values for high school students. This type of research is R&D research that refers to the 4D development model. The results showed that the entrepreneurial values integrated into the video tutorials are innovation and creativity, commitment, confidence, and hard work. The results of the validation of material experts are 85% and media experts are 90%. The test results of the biology study teacher in the material aspect were 87.5%, the video display aspect was 87.5%, and the benefit aspect was 95%. The results of the perception of the display aspect were 87.4%, the content aspect of the tutorial video was 91.4%, and the benefit aspect was 91.7%. Thus, the entrepreneurship-based video tutorial for making freshwater clam meatballs (*P.expressa*) is deemed feasible to be used as a learning medium for Animalia material, the role of molluscs in life

**Keywords:** *Video Tutorials, Development, Entrepreneurship Values*

### 1. INTRODUCTION

In an effort to optimize the learning process, good communication is required in one of them by using the learning medium. The learning media is a tool that is used for delivers a message that facilitates the process of interaction between the force of educators and learners (Arfika & Chalid 2016). The learning media can also serve as a substitute for a material broadcaster, the media also has a unique potential that can help students learn take two. (Agustien *et al.*, 2018: 20).

A learning medium often used in the learning process. Teaching is such visual media as books and such audio-visual media video tutorials. Video tutorials are a series of live pictures that could display information given by a tutor in group people. So that a group of people can getting kknowledge (Utomo & Ratnawati, 2018).

Video tutorials are believed to be highly effective in learning to support students' abilities (Lloyd & Robertson, 2012). Results research done by Van Der

Meij Hans & Jan, (2014) states that tutorial videos get hooked results, much better results from print. Another study was also done by irsyad et all (2018) which states that video tutorials are practical and can comfort students with the effect they use so that students do not feel monotonous.

Based on observations made on the 11 cities of SMAN 11, information is provided that the school has implemented a 2013 curriculum with learning support facilities such as wi-fi. Based on the interview got information that some students are still less enthusiastic about it learning, it is clear to see from response of students who tend to be silent in learning and based the results of interviews that have been conducted it is known that students prefer mater that implied Contextual, as in the sub material role molluscs.

Based on student needs known that analysis it takes a variety of learning resources the more attractive one can afford upgrade learning. So based on problems found can concluded the

existing learning is not yet enough to help understand material animalia sub material role molluscs. According to Dibyowati (2019) enthusiastic inside that the media states moluca has several roles for humans of which is a source animal protein, animal feed ingredients, industrial materials, and jewelry. Wrong one example of a mollusk is a water shellfish bargain (*P.expressa*). The role of water shells bargain (*P.expressa*) in life everyday very much, like fulfillment of nutrition in the food sector. Freshwater shells are a great source animal protein for humans who are has a protein content high enough. Protein content in freshwater shellfish belong to in Karend Kay's complete protein the essential amino acids are happy more easily absorbed by the body. This matter according to what is said by Salmin et al., (2017) that proten shellfish is categorized as protein complete, has acid levels high amino. However, there are not many shells monitored by the surrounding community. In the community the use of water shells tasteless into processed materials still very minimal. Public only processing freshwater clams He traditional odnan like goulash and chilli fried clams (Ghazali et al., 2015: 3).

The people around the edge of lake sipin sell freshwater shells economically. Even at that price economically, the people are less interested in processing the shellfish because of their sense of smell in the mud. It relates to the Komarawidjaja (2006) *expressa* freshwater seashells live in the region a little too much sand.

Therefore, to adding flavor and values economical for freshwater shells the freshwater seashells (*P. expressa*). Can be used as food processed like a meatball. Meatballs are a processed product that is based on the flesh-that is first mashed and mixed with seasonings,

flour. And then breast out small and boiled in water (Chakim et al., 2013: 98).

The build-up steps freshwater clam (*P. expressa*) can be packaged in an interesting learning media for students, for example in video tutorials that can be used as learning media on sub materials the role of mollusks in life Tutorial videos allow for a series of intermediate stages that can be directly tutored and practiced.

Hans & Jan (2014: 151) revealing the advantages of video tutorial is video can visualize dynamically, assistuserin understand temporal changes, and it's easy to follow in learning. Also, according to Mawan et al., (2017) a video has the surplus can flatten a message received, overcome space and time limitations, more realistically, can be repeated and terminate at will, providing a deep impression that can affect attitudes. This corresponds research with Asmara (2015) that learning to use audio-visual media has high success.

The role of this video tutorial itself as an effective learning medium developed to supplement existing references. Based on these factors, it would require the development of video tutorials for entrepreneurship levels.

## 2. RESEARCH METHODH

The study is being conducted at the eleven cities of jambi. The study was carried out in August 2020. The type of study conducted is qualitative and quantitative work with the R&D model. Research selector of media video tutorials uses model 4d (define, design, development, disseminate). Here is the stage model 4d in figure 1 as follows:

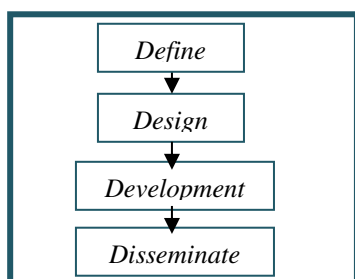


Figure 1. 4D Models (Thiagarajan et al., 1974)

The subject of this research is student MIA SMAN 11 cities and biology subjects. The scale used is the Likert scale. The scale is used to calculate the validator assessments of matter and media and the perceptions of teachers and students.

The collection of data on this research uses the scale used at the computer is skal likert. The alternative answers based on skal likert are as follows:

Tabel 1 Kriterion scor from scale *Likert*

Category	Scor
Sangat baik	4
Baik	3
Cukup baik	2
Kurang baik	1

(Source: Sugiyono, 2017:116)

### 3. RESULTS AND DISCUSSION

The results of this development are the results of this development: a) entrepreneurship values integrated into tutorial videos of 1) innovative and creativity, 2) commitment, 3) confident, 4) hard work, b) validation of materials and media, teacher perception and student perception. The result is presented in the following pictures 2, pictures 4, pictures 6, and pictures 8.

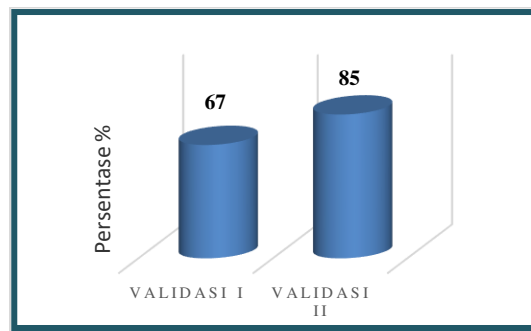


Figure 2. Graph percentase validation material validation I (67%) and validation II (85%)

Based on the above graph, the result of the validation of material were done twice over. The first validation is aquired 67% with same improvement suggestion to do with the addition of KI and KD maerials.

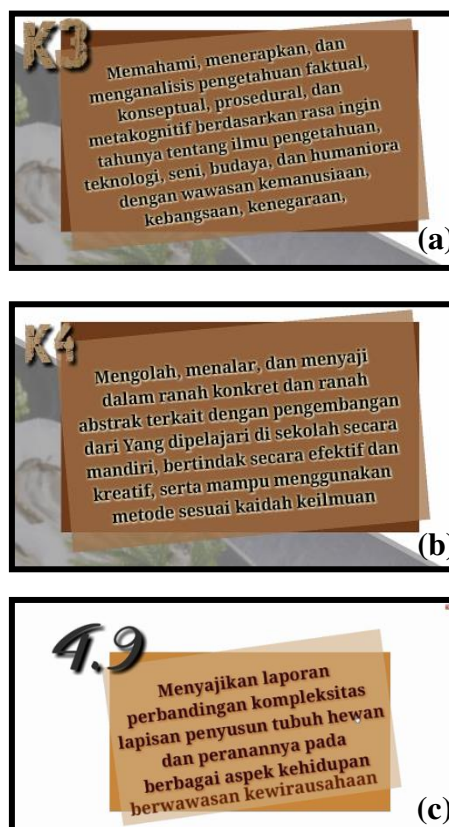


Figure 3. Increase KI and KD (a) KI 3, (b) KI 4, (c) KD

As a result of the revision, the second validation is acquired a percentage of 85% that is in a category that is excellent and worthy of translation without revision.

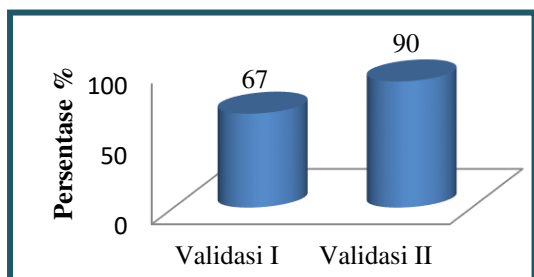


Figure 4. Graph persentase hasil validasi media validation I (67%) and validation II (90%)

Based on the above graph, we've obtained a two-time media validation. First validation is acquired 67% with some emphasized improvement Suggestions on picture quality, background, and voice coordination.



Figure 5. Increasing klasifikasi fresh water (P.expressa)

After the revision, the second validation is obtained a percentage of 90% of which is in the best category and is worthy of inclusion without revision.

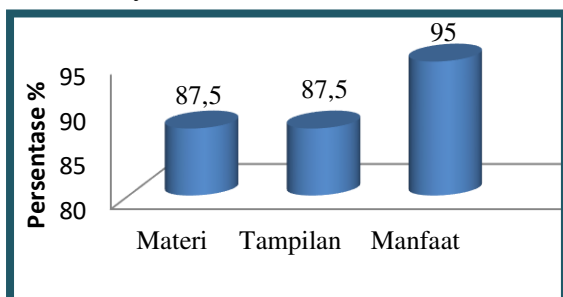


Figure 6. Graph persentase teacher's response study of biology from aspect: material (87.5%), viewing (87.5%), dan benefit (95%).

Based on the teacher's response tests on the above graph, there are percentages in material aspects, video tutorials, and the consecutive benefit aspects of 87.5%, 87.5%, and 95% that fall into excellent categories. Based on these assessments, the video tutorials are worthy of use in learning.

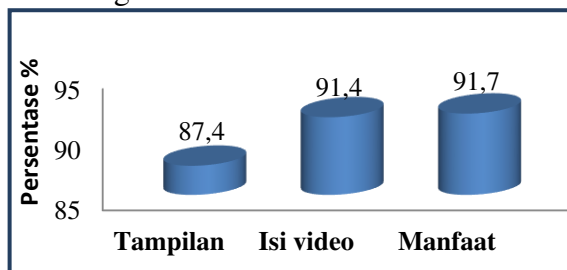


Figure 7. Graph persentase student responses of aspects: viewing (87.4%), content of video (91.4.5%), dan benefit (91.7%).

Based on figure 6 above related student responses based on several facets. Some of these aspects are the viewing of video tutorials, the content of video tutorials, and the benefit aspects. According to student assessments, video tutorial displays are doing very well with a percentage of 87.4% obtained. Judging from the content of video tutorials, students respond that the content of tutorial videos is easily understood at a percentage of 91.4%. In light of the benefits received a percentage of 91.7%, which means video tutorials are particularly well used to improve the entrepreneurship values on learners.

Real-life media video developer (*P. expressa*) based entrepreneurship using model 4d. Video tutorials can be produced to explain a process in detail for facilitating something. The use of this entrepreneurship video-learning media can help and simplify the student learning process. Students can learn it first by seeing and absorbed the material intact. Empirical studies compare video-video media tutorials and paper-based media have varying results. Menstre

(2013) reports on paper-based media are more profitable, Alexander (2013) has found no distinction between the two. Meanwhile, four other studies have found results that tutorial videos are significantly more effective than paper-based media (Lloyd & Robertson, (2012), Van der mej Hans & Jan (2014), Van der mej Hans & jan, (2015), and Meij *et al.*, (2018)).

In video tutorial development, integrating the entrepreneurial values therein. Entrepreneurship is the ability to create something new creatively and innovative in creating opportunities to meet life's challenges (Sukirman, 2017: 116). According to the Kemendiknas, 2010 (Ulwiyah, 2017: 2) there is a lot of well-known entrepreneurship values that can be put into the student body during the learning process. Those values are: self-reliant, creative, daring to take risks, action-oriented, leadership, hard work, honest, discipline, innovative, responsibility, cooperation, unyielding, commitment, realistic, inquisitive, communicative, and powerful motivation to succeed.

Stage 4d begins at the beginning of end analysis. Based on analysis it is known that the curriculum used at SMAN 11 is the 2013 curriculum and that a complete learning device is available. The method used in the study of biology is lecture, discussion and game but learning is more centered on teacher centered. Learning support facilities are also available quite complete as infocus, WIFI access, chalkboard, pen, pen, chalkboard, chalkboard, chalkboard, chalkboard, chalkboard, chalkboard, chalkboard, chalkboard, note-eraser and textbook.

While the stage of student analysis (completion analysis) may be known that the problem students face is the lack of activation and enthusiasm of students in learning caused by the availability of

monotonous learning resources. It's consistent with the nuretc., (2011) that a learning environment that includes a student's learning atmosphere and the student's condition in learning can affect a student cognitive.

Concept analysis used KI 1, KI 2, KI 3 and KI 4 and KD 4.9. Based on these analyses, researchers are developing video tutorials that can help teachers and students in learning especially on sub materials the role of mollusks in life. Irsyad *et al.*, (2018) revealing media videos tutorials in addition to assisting explanations of learning materials, can also comfort learners with various visual and audio effects so that learners do not feel monotonous.

The next step is the design stage. At this stage researchers create an angketone used for the validation of materials, media validation, the teacher's response to subjects, and student responses to products. Next, researchers designed a product developed with a premium master kine application. Early design of entrepreneurship video tutorials made if produced into tutorial videos according to scouts Pramudito (2013) would make it easier and easier for both students and teachers to learn. Students can learn first by viewing the material presented in video tutorials. Corroborated by research Irsyad *et al.*, (2018) with video media tutorials it can help teachers explain the material over and over again both in general and in part, so the learning process can go easier, be interesting, effective and efficient, and increase the motivation and understanding of students.

The stage of development consists of two activities expert appraisal and development testing (Thiagarajan *et al.*, 1974). At the stage of expert appraisal, researchers conducted a validity test with the help of materials expert and media

expert. Based on data analysis of the process for material validation, it is known that material validation gets a percentage with a final 85% value. This validation is conducted 2 times, first stage is acquired a percentage of 67% with some Suggestions for additional materials according to KI and KD. Phase ii validation, in turn, acquired an 85% percentage that fall into very good category. At this point there is no revision because the conclusion is that products are worth making without revision.

Furthermore, media validation was validated twice. Stage one validation acquired a 67% percentage as well. Although it falls into a good category, there are still improvement Suggestions given by media experts on picture quality on video tutorials. Stage ii media validation is getting 90% of what falls into very good category. In this second stage there is no revision because validator's conclusion states that video media tutorials are worthy of trial without revision.

Based on the results of the teacher's response test to material aspects of video conferral for feedy-based entrepreneurship shells, it has been obtained that videos highly correlate material to KI and KD in the presence of entrepreneurship values integrated into tutorial and language videos used in simple and understandable tutorial videos. The second aspect is the view of tutorial videos that tutorial videos have interesting looks and can make students feel monotone and on the merits of tutorial videos make it easier for teachers in learning and thereby enhance students' understanding of the sub material role of mollusks that can supplement material flaws and enable students to learn independently. Based on these assessments, a video media tutorial of

freshwater seashells is well received by a biology study teacher and is worthy of being used as a teaching medium on the sub-matter animalia of mollusks. In the student trials were obtained results that video tutorials could be well received by students. It goes along with Van Der Meij Hans., (2018) it has resulted that videos produce better results than a print with a 97.1% effectiveness percentage for video tutorials and 94.7% for print-based media.

Based on the results of tests performed, it is known that video tutorials are worthy of being used as teaching media on sub materials the role of mollusks in human life. Tutorial videos are believed to be very effective in learning to support learners' abilities (Lloyd & Robertson, 2012). Karimi et al, (2003) adds that with the use of videos, a positive result of both cognitive and attitude gain.

As soon as the video was done, it was published by uploading on youtube.



Figure 8. Screen shoot evidence spread via Youtube (<https://youtu.be/u1OL4qkw8q4>)

Researchers have concluded that video tutorial for the production of freshwater shells is already very good and usable. Learning using the video has higher success (Asmara, 2015) and can enhance the learning process (Rozie, 2013). Reference to dale's experience conical theory, that videos as visually audio media are more concrete used as learning messages (Arsyad, 2014) significantly tutorial videos are more

productive than paper (Hans & Jan, 2014, 2015). The use of learning media in the learning and teaching process can arouse new desires and interests, generate the motivation and stimulus of learning activities, and even bring psychological influence to students (Arsyad, 2014).

In addition to video use, the implanting of integrated entrepreneurship values also contributes greatly to developing student entrepreneurship values. By instilling entrepreneurial values can shape individual student economies' growth and mental preparedness in creating a business. This in line with Adinugraha (2017) ecoprenship, to improve entrepreneurial values entrepreneurship must be integrated in learning. By building the entrepreneurship values into learning, the entrepreneurial soul will gradually grow in students and be reflected in everyday behavior.

#### 4. CONCLUSION

Based on the results of the research that has been done, it can be concluded that:

1. Video The video tutorial for making freshwater clam meatballs presents material on the role of mollusks and the process of making meatballs. In addition, there are entrepreneurial values applied by students, namely innovation and creativity, commitment, self-confidence and hard work.
2. Video tutorials developed using the 4D model, namely define, design, development, disseminate. Product designs are made using the premium Kine master application. The contents of the video tutorial consist of introductions, core competencies, basic competencies, entrepreneurship material, the role of mollusks, processing of shellfish, and making shellfish meatballs. The video tutorials that have been developed are then validated by the material and media validators.
3. Validation of material experts obtained by 85% which is in the very feasible category and media validation obtained by 90% which is included in the very feasible category. The perception of the teacher in the field of biology education towards the tutorial video for making freshwater clam meatballs was generally good with the percentage on the material aspects, appearance and benefits, respectively, being 87.5%, 87.5% and 95% including the very practical category. Students' perceptions of the video tutorials with the percentage obtained in the aspects of appearance, content and benefits are 87.4%, 91.4% and 91.7% so that it is said that they can be well received by students.

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