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Nurturing Innovative and
Highly Literate Generation through Science Education



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DEVELOPMENT THE ECOLOGY WETLANDSMODULE AND MEDIA BASED OF MULTIMEDIA AS A SUBJECT LOCAL CHARGE IN HIGH SSCHOOL

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Abstract—Research on the use of modules and the media in learning and its effect on high school students study results have been conducted, but not many works to develop learning module and media biology based local potential and based characteristic of students. High school in The Hulu Sungai Utara District of having students who are mostly society Dayak Bakumpai tribe in habiting the area of the banks of streams and swamps by utilizing flora and fauna in the area. Therefore instilling the concept of conservation in preserving environment need done early, especially the effort to develop concern of high school students in The Hulu Sungai Utara District against the preservation of the streams and swamps that is a source of community life Dayak Bakumpai. This study attempts to develop ecology wetlands module and media based of multimedia decent and can be taught in high school class XI as a subject charge localized in an effort to form the conservation. The kind of research use is Research and Development (R&D). Eligibility will be assessed based on the validity of module and media obtained from the assessment three experts, two teachers partners and 10 students. Data evaluation experts and partner teachers analyzed using validity criteria of Akbar (2013) and Arsyad (2013). The result showed that module and media developed expressed very valid by three experts and two teachers partner, and students read test were excellen.

Keywords: *Validity, Module Ecology Wetlands, Multimedia, High School*

I. INTRODUCTION

One of the application of learning individually is to use module. Module can be used to learn independently or individual, because module contain the purpose of learning, sheets a clue about reviewing with modules, media, reading materials, sheets of the answer as over, and assessment. Thus, study results students using module appropriate expected higher than learning conventionally [3]. The use of biology module in school year to year began to increase, but the contents of the module has not been directed. One that can be used to address this issue is the preparation of the modules based local potential so the students get an example or perform learning activity potential in accordance with local [4].

Learning model will go well as the when endorsed by the media in accordance with the character model, material and character students. Media uses proper would cause students can focus on the topic to be learned with the help of the media, so interest and been the motivation can be improved , concentration not easily perturbed, and is expected to learning get better, and consequently the student achievement can be improved [5].

Made enormous gains in information technology and communication able to benefit positive in the development of information technology and hovering important in the days is in the field of multimedia with its convergence of audio and video into one whole to harnesses and applied in education sector. Lessons ecology wetlands relating, to seeking, to some thing information about wetlands are characteristic in South Kalimantan. So Ecology Wetlands not only mastery of knowledge of facts, concepts, or prinsples but is also a discovery proceedings. Subjects ecology wetlands is expected to become the spacecraft for learners to learn ecosystem are around him, and the prospect of a further development in apply them at in the day.

High schools in Amuntai The Hulu Sungai Utara District have a kid who are mostly the tribe Bakumpai Dayaks. The Dayaks Bakumpai is a nickname for dayaks inhabiting the area of its edges and bogs mostly use of the area. Therefore education and environmental conservation absolutely necessary to improve concern for sustainability natural resources like Undang-Undang Number 5 Years 1990 on the consevation biodiversity, including resource management organic natural. Therefore education and environmental conservation absolutely necessary to improve concern for sustainability natural resources like Undang-Undang Number 5 years 1990 on the consevation biodiversity, including resource management organic natural. It is supported by the results [6] reported that the indigenou knowledge of the community Dayaks Bakumpai to preserve their environment to the childs has degredation, especially high school graduates no longer aware of the importance of plants around it, moreover alternative to preserve it.

Based on the above analysis efforts are required to develop concern young generation especially siswa district high school in the upstream north against the preservation of swamp that is a source of community life Dayak Bakumpai in the area. This report aims to obtain feasibellity module Ecology Wetlands and media multimedia based learning Ecology Wetlands can be taught in high school class XI as a subject local charge in forming conservation cadres high school students in The Hulu Sungai Utara Districtresearch aims to obtain feasibellity module Ecology Wetlands and media multimedia based learning Ecology Wetlands can be taught in high school class XI as a subject local charge in forming conservation cadres high school students in the upstream northern district.

II. RESEARCH METHOD

Research by is the kind of Research and Development (R&D) who developed module ecology wetlands by Dharmono [7]. The procedure research development adopt procedure Borg and Gall [8] involving five the main steps: 1) an analysis of products will be developed, 2) develop early products, 3) validation experts and revision, 4) testing the field a small scale and revision products, and 5) field trials a large scale and the final product. At this stage new research was undertaken until with validation expert step, validation teachers partner, students read test and the revision of the product. Data collection techniques in accordance with the procedures research development learning. Technique evaluation on the module and technique evaluation on the media using of modification criteria [1]. Research conducted in diskriptif analysis based on library.

TABLE 1.CRITERIA OF VALIDATION PRODUCT

Score	Point	Expert Validity	Students Read Test
85 - 100%	5	Very Valid	Excellen
70 - < 85%	4	Valid	Good
60 - < 70%	3	Quite valid	Passable
50 - < 60%	2	Less valid	Deficient
<50%	1	Invalid	Not good

III. RESULT AND DISCUSSION

Based on the assessment by the teachers partners students read test to module developed, can summarized as on a Table 1 the following.

TABLE 1.VALIDATIONTHE RESULTS, EXPERT, TEACHERPARTNERS AND STUDENTS READ TEST TO MODULE

No	Criteria	Validity of Expert	Validity of TeacherPartners	StudentsRead Test
1	Highest	5,0	5,0	5,0
2	Lowest	4,0	4,5	4,5
Average		4,5	4,7	4,7
Validation		Very Valid	Very Valid	Excellen

The Table 1 above it can be concluded, that modules developed according to experts and partner teachers are very valid and according to students is excellen. In other words theoretically procedural ecology and module wetlands developed can be used or worth as teaching material based local on high school student class xi to improve knowledge the conservation of the land and rivers in their area. This is in accordance with [9], stating that matter locally material is the subject matter originating from environmental conditions and the

real and phenomenon be within students arranged systematically which included physical environment, social (cultural and economic), understanding, confidence, and insight local learners itself.

Based on by the assessment, teachers partners and students read test to the media audiovisual developed, can summarized as on a Table 2 the following.

TABLE 2.VALIDATION THE RESULTS, EXPERT, TEACHERPARTNERS
AND STUDENTSREAD TEST TOMEDIA

No	Criteria	Validity of Expert	Validity of Teacher Partners	Students Read Test
1	Highest	5,0	5,0	5,0
2	Lowest	4,5	4,5	5,0
	Average	4,7	4,7	5,0
	Validation	Very Valid	Very Valid	Excellen

The Table 2 above it can be concluded, that media audiovisual developed according to experts and partner teachers are very valid and according to students is excellent. In other words theoretically media and procedural audiovisual ecology wetlands developed can be used or worth as audiovisual locally media in high school student class XI to improve knowledge the conservation of the land and rivers in their area. Validation users who aims to understand excess or deficiency from the relevance, accuracy, language, also alignment with learning that focused on students, based on this assessment users can inform the improvement developed [1]. Therefore in this research teachers a partner as leading perpetrator material for assess the media developed. Input from experts, teachers partner, and students to perfection media the audiovisual ecology wetlands developed.

Revisions aims to do work or refinement comprehensive to products, so the media in accordance with inputs obtained from activities validation. This activity is request approval process or attestation against conformity with the needs of the media. As confirmed by [10] validation products that aims to obtain recognition of products or endorsement needs so it can and suitable in learning. It is supported by Novana (2014), that media may be prepared based local potential that students get an example or do the learning according to potential local region.

The tests of modules and media at students help scientists determine parts that need revision , so that later produced module and media who easily understood students. The purpose of the individual (students read test) namely to repair a keyboard, sentence unclear, guidance lost or unclear, an example is not appropriate, vocabulary unknown, any figure or yard, and pictures uncommunicative [11].

Students read test in terms of read components, components interactive, the ease of use, students said totally agree module and media developed used in learning EcologyWetlands. The results of response show that media an easy enough unintelligible because the presentation of the material accompanied picture, associated with knowledge and adapted to experience students. The media can draw, if using illustrations clarify the material understandable students.

IV. CONCLUSION AND SUGGESTION

The result showed that, the module assessment and media average was very good used as learning Ecology Wetlands validator expressed by very valid, scoring by teachers partner very valid, the students read testwas excellen. However that module and media developed can be used as required by in the field, need to be taken continuation of this research development, in the pilot or implementation and event.

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