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PENGEMBANGAN MEDIA PEMBELAJARAN LABORATORIUM VIRTUAL BERBASIS DISCOVERY LEARNING PADA MATERI SISTEM EKSKRESI UNTUK KELAS XI MIPA

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Abstract: The research aims to: 1) Knowing the procedure of developing virtual laboratory learning media based on discovery learning in excretory system material, and 2) Knowing the feasibility of virtual laboratory development based on discovery learning in excretory system material. The type of research is Research and Development (R & D) which refers to the 4D model (Four-D Model). The research design was modified into 3 steps (3-D) consisting of define, design, and develop. The research was conducted at SMA Batik 2 Surakarta. The technique of taking research subjects using simple random sampling technique. The population of this study is all students of class XI MIPA SMA Batik 2 Surakarta academic year 2018/2019. The research subjects were divided into two, namely limited test subjects and field trial subjects. The limited trial subjects were taken from class XI MIPA 2 and XI MIPA 3 with a total of 4 students per class. Subjects of field trials were taken from class XI MIPA 1 with a total of 27 students. Data collection techniques are divided into two stages, namely define phase with collection techniques using interviews, observations, and student questionnaires, while the develop stage with collection techniques using questionnaires. Data analysis techniques were carried out in quantitative and qualitative descriptive. The results showed that: 1) The procedure for developing virtual laboratory learning media based on discovery learning in excretion system material refers to the 4D development model (four D models) modified into 3 steps, namely define, design and develop due to limited ability. Products developed using Adobe Animate CC 2017 with results in the form of applications. Virtual laboratory developed by discoveryy learning based on products; 2) Virtual laboratory media based on discovery learning in excretory system material is suitable for use in learning based on feasibility aspects by validators, evaluations and students with very valid validity levels.

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Keywords: Virtual laboratories, excretion systems, discovery learning

Keterangan:
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DISKUSI

Penanya: Amalia Ulfa, S.Pd
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Pertanyaan:
Apakah media Laboratorium visual ini dibuat sendiri atau dibuatkan?

Jawaban:
Ada promotor media, namun Storyboard dan Flowchart saya membuat sendiri.

Penanya: Hari
SMA 8 Solok Selatan, Sumatera Barat

Pertanyaan:
Ada kegiatan yang tidak dapat dilakukan secara visual. Seperti kegiatan membau, itu bagaimana caranya?

Jawaban:
Kegiatan membau sudah diberi keterangan berupa tulisan.