

ABSTRACT

Developing a Student's Work Sheet Based on *Discovery Learning* Model to Improve Students Process Skill of science

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This research was conducted due to the unavailability student's work sheet which was in line with students characteristics and the demand of curriculum. In structure terms, there was no learning references. supporting information, tabels data and disscusion sheet not yet. The existing of student's work sheet could not motivate the students yet become active learning, built their minds and found or proved physics concept through learning process. One of the instructions which could be applied to solve these problems was *discovery learning* model to Improve Students Process Skill of science. The purpose of the research was to obtained valid, practical and effective a student's work sheet. This research aimed to develop a student's work sheet based on *discovery learning* model on circular motion material.

This type of research was research and development. Model 4-D was used in this research which consisted of define stage, design stage, develop stage and disseminate stage. Data primer was used in this research which obtained through needs analysis, validity analysis, practicality analysis and effectiveness analysis.

The results in design stage, it was created a prototype of a student's work sheet which reffered to needs analysis in define stage. In develop stage, it was produced a valid student's work sheet (87,93), practicality LKPD is obtained of Student's Work Sheet obtained of teachers respons Sheet (89,58) and Students respons sheet (85,09) and Effective obtained through cognitive assessment (77,41), affective assessment of analog lab tool (79,58), affective assessment of lab tool based digital technology (89,22) and skill process assessment (75,02). Disseminate stage, Effective obtained through cognitive assessment (77,58), affective assessment of analog lab tool (79,75, affective assessment of lab tool based digital technology (87,50) and skill process assessment (79,22) when it was aplicated to another class. It can be concluded that students worksheet which is based by *Discovery Learning Model* to improve students process skill of science principle with valid, practice, and effective criteria dan could be used in learning process.

ABSTRAK

Pengembangan Lembar Kerja Peserta Didik Berbasis Model *Discovery Learning* Untuk Meningkatkan Keterampilan Proses Sains Peserta Didik

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Penelitian ini dilatarbelakangi belum tersedianya LKPD yang sesuai dengan karakteristik siswa dan tuntutan kurikulum. Secara struktural, LKPD yang digunakan belum dilengkapi dengan petunjuk belajar dan informasi pendukung, data tabel dan bahan diskusi. LKPD yang ada belum bisa memotivasi Peserta Didik untuk aktif dalam pembelajaran, membangun pikiran sendiri dan menemukan konsep fisika melalui proses pembelajaran dan belum mengarahkan peserta didik untuk memperoleh keterampilan proses sains dalam pembelajaran. Salah satu pembelajaran yang bisa digunakan untuk mengatasi masalah ini adalah model *discovery learning*. Penelitian ini bertujuan untuk menghasilkan LKPD berbasis model *discovery learning* pada materi fluida statis untuk meningkatkan keterampilan proses sains peserta didik yang valid, praktis dan efektif dalam pembelajaran.

Jenis penelitian ini adalah penelitian pengembangan (*research and development*). Model pengembangan yang digunakan adalah Model 4-D yang terdiri dari tahap *define* (pendefinisian), *design* (perancangan), *develop* (pengembangan) dan *disseminate* (penyebaran). Data yang digunakan dalam penelitian ini adalah data primer yang diperoleh melalui analisis kebutuhan, analisis validitas, analisis praktikalitas dan analisis efektivitas.

Hasil tahap *design* diperoleh *prototype* berupa LKPD yang mengacu pada analisis kebutuhan pada tahap pendefinisian. Tahap *develop* diperoleh LKPD yang memenuhi kriteria sangat valid (87,93), praktikalitas LKPD diperoleh dari angket Respon Guru (89,58) dan angket Respon Peserta Didik (85,09) dengan kriteria sangat praktis dan Efektif diperoleh dari rata-rata penilaian pengetahuan (77,41), penilaian sikap terhadap alat praktikum manual (79,58), penilaian sikap terhadap alat praktikum berbasis teknologi digital (89,22) dan penilaian keterampilan meliputi keterampilan proses sains peserta didik (75,02). Tahap *disseminate*, efektif diperoleh dari rata-rata penilaian pengetahuan (77,58), penilaian sikap terhadap alat praktikum manual (79,75), penilaian sikap terhadap alat praktikum berbasis teknologi digital (87,50) dan penilaian keterampilan meliputi keterampilan proses sains peserta didik (79,22) ketika disebarkan di kelas lain. Disimpulkan bahwa LKPD berbasis model *discovery learning* untuk meningkatkan keterampilan proses sains peserta didik memenuhi kriteria valid, praktis dan efektif dan dapat digunakan dalam proses pembelajaran.