

## ABSTRACT

**Nur Isnaniah.** 190101100200 Development of Optical Practicum KIT Equipped with Guided Inquiry-Based LKPD Against Science Process Skills of Madrasah Aliyah Students, Supervisor Irma Rahmawati, M.Pd., in the Tadris Physics Study Program, Faculty of Tarbiyah and Teacher Training UIN Antasari Banjarmasin. 2023 .

**Keywords:** Optical Practicum KIT, LKPD , Guided Inquiry, Science Process Skills

The background of this research is the lack of supporting facilities for physics practicum activities such as laboratories and teaching aids so that KD-4 in optical material is not carried out and students' science process skills are not properly trained . The objectives of this study were (1) to determine the validity of the Optical Practicum KIT on science process skills, (2) to determine the validity of guided inquiry-based worksheets on science process skills, (3) Knowing students' science process skills after using the Optical Practicum KIT equipped with guided inquiry-based worksheets .

This type of research is Research and Development or RnD with the ADDIE development model ( Analyze , Design , Development , Implementation , and Evaluate ). This study used 2 physics lecturers and 1 physics teacher as validators, as well as 30 students of class XI IPA MAN 2 Banjar. The research instruments were validity questionnaires, KPS test questions, and student KPS observation sheets. Research data were analyzed using quantitative descriptive and qualitative descriptive analysis techniques.

The results of the validity of the Optical Practicum KIT were declared very valid by the validator with an average percentage of 84.83%. LKPD based on guided inquiry is also stated to be very valid with an average percentage of 89.56%. The science process skills after using the Optical Practicum KIT equipped with guided inquiry-based worksheets are included in the "good" category with an average percentage of 69.13% with an average acquisition of each indicator of science process skills namely observing 77.17% in the "good" category , Interpreting 55.80% of the "enough" category, Predicting 66.67% of the "good" category, Asking Questions 60.51% of the "enough" category, Formulating a Hypothesis 60.51% of the "enough" category, Planning Experiments 82.61% of the category "very good", Using Tools and Materials in the "very good" category, Applying Concepts 67.11% in the "good" category, and Communicating 69.56% in the "good" category.

## ABSTRAK

**Nur Isnaniah.** 190101100200 Pengembangan KIT Praktikum Optik Dilengkapi LKPD Berbasis Inkuiri Terbimbing Terhadap Keterampilan Proses Sains Peserta Didik Madrasah Aliyah, Pembimbing Irma Rahmawati, M.Pd., pada Program Studi Tadris Fisika Fakultas Tarbiyah dan Keguruan UIN Antasari Banjarmasin. 2023.

**Kata Kunci:** KIT Praktikum Optik, LKPD, Inkuiri Terbimbing, Keterampilan Proses Sains.

Penelitian ini dilatar belakangi karena kurangnya fasilitas penunjang kegiatan praktikum fisika seperti laboratorium dan alat-alat peraga sehingga KD-4 pada materi optik tidak terlaksana dan keterampilan proses sains peserta didik tidak terlatih dengan baik. Adapun tujuan penelitian ini yakni (1) Mengetahui validitas KIT Praktikum Optik terhadap keterampilan proses sains, (2) Mengetahui validitas LKPD berbasis inkuiri terbimbing terhadap keterampilan proses sains, (3) Mengetahui keterampilan proses sains peserta didik setelah menggunakan KIT Praktikum Optik dilengkapi dengan LKPD berbasis inkuiri terbimbing.

Jenis penelitian ini adalah penelitian pengembangan atau RnD (*Research and Development*) dengan model pengembangan ADDIE (*Analyze, Design, Development, Implementation, dan Evaluate*). Penelitian ini menggunakan 2 orang dosen fisika dan 1 orang guru fisika sebagai validator, serta 30 peserta didik kelas XI IPA MAN 2 Banjar. Instrumen penelitian ini berupa angket validitas, soal tes KPS, serta lembar observasi KPS peserta didik. Data hasil penelitian dianalisis menggunakan teknik analisis deskriptif kuantitatif dan deskriptif kualitatif.

Hasil validitas KIT Praktikum Optik dinyatakan sangat valid oleh validator dengan persentase rata-rata sebesar 84,83%. LKPD berbasis inkuiri terbimbing juga dinyatakan sangat valid dengan persentase rata-rata sebesar 89,56%. Adapun keterampilan proses sains setelah menggunakan KIT Praktikum Optik dilengkapi LKPD berbasis inkuiri terbimbing termasuk pada kategori “baik” dengan presentase rata-rata sebesar 69,13% dengan perolehan rata-rata tiap indikator keterampilan proses sains yakni Mengamati 77,17% kategori “baik”, Menafsirkan 55,80% kategori “cukup”, Memprediksi 66,67% kategori “baik”, Mengajukan Pertanyaan 60,51% kategori “cukup”, Merumuskan Hipotesis 60,51% kategori “cukup”, Merencanakan Percobaan 82,61% kategori “sangat baik”, Menggunakan Alat dan Bahan kategori “sangat baik”, Menerapkan Konsep 67,11% kategori “baik”, dan Mengkomunikasikan 69,56% kategori “baik”.