# ABSTRAK

**Regina Arfarines (1222060095)** "Pengembangan LKPD Berbasis Inkuiri Terbimbing Meningkatkan Scientific Representation Skills Siswa Pada Materi Keanekaragaman Hayati (Aves)"

*Scientific Representation Skills* merupakan salah satu keterampilan penting dalam pembelajaran biologi abad ke-21. Penelitian ini bertujuan untuk mengetahui peningkatan *Scientific Representation Skills* siswa melalui penggunaan LKPD berbasis inkuiri terbimbing pada materi keanekaragaman hayati (Aves). Penelitian menggunakan metode *Research and Development* (R&D) dengan model 4D yang dibatasi pada tahap *Define, Design,* dan *Development*. Subjek penelitian terdiri atas 45 siswa kelas X-5 SMAN 27 Bandung. Data diperoleh melalui validasi ahli materi dan media, uji keterbacaan guru, tes *pretest-posttest*, dan angket respons siswa. Hasil penelitian menunjukkan bahwa LKPD memperoleh validasi ahli materi sebesar 94,28%**,** ahli media sebesar 88,33%**,** dan uji keterbacaan guru sebesar 82%. Analisis N-Gain menunjukkan bahwa *Scientific Representation Skills* siswa mengalami peningkatan dengan kategori sedang hingga tinggi. Respons siswa terhadap LKPD memperoleh persentase sebesar 90,5% dengan kategori sangat baik. Dengan demikian, LKPD berbasis inkuiri terbimbing yang dikembangkan layak digunakan dan dapat mendukung peningkatan *Scientific Representation Skills* siswa pada materi keanekaragaman hayati (Aves).

**Kata Kunci:** *Scientific Representation Skills*, LKPD, inkuiri terbimbing, keanekaragaman hayati, Aves

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## *ABSTRACT*

**Regina Arfarines (1222060095)** "Development of a Guided Inquiry-Based Student Worksheet to Improve Students' Scientific Representation Skills on Biodiversity (Aves)"

*Scientific Representation Skills* are important skills in 21st-century biology learning. This study aimed to determine the improvement of students' *Scientific Representation Skills* through the use of a guided inquiry-based student worksheet on biodiversity (Aves). This study employed a *Research and Development* (R&D) method using the 4D development model, which was limited to the *Define, Design,* and *Development* stages. The subjects of the study consisted of 45 students of Grade X-5 at SMAN 27 Bandung. Data were collected through material and media expert validation, a teacher readability test, a *pretest-posttest*, and a student response questionnaire. The results showed that the developed student worksheet obtained a validation score of 94.28% from the material expert and 88.33% from the media expert, while the teacher readability test obtained a score of 82%**.** The N-Gain analysis showed that students' *Scientific Representation Skills* improved from the pretest to the posttest, with a moderate to high category**.** Students' responses to the developed student worksheet obtained a percentage of 90.5%**,** categorized as very good. Therefore, the guided inquiry-based student worksheet developed in this study is feasible for use and can support the improvement of students' *Scientific Representation Skills* in biodiversity (Aves) learning.



**Keywords:** *Scientific Representation Skills*, student worksheet, guided inquiry, biodiversity, Aves



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