

## ABSTRAK

NENG AYU MUSTIKA SAFARI. 2023. **Analisis Beban Kognitif Peserta Didik Kelas XI Pasca Pandemi Covid-19 Pada Materi Sistem Indra Tahun Ajaran 2022/2023**. Jurusan Pendidikan Biologi, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Siliwangi.

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Setiap peserta didik mempunyai kapasitas memori kerja yang berbeda. Banyaknya kegiatan dan kompleksitas materi menyebabkan berlebihnya kapasitas memori kerja peserta didik. Penelitian ini bertujuan untuk mengetahui beban kognitif peserta didik pasca pandemi covid-19 pada materi sistem indera. Penelitian dilakukan secara deskriptif kuantitatif. Teknik pengambilan sampel yaitu *purposive sampling*. Sampel penelitian sebanyak 35 peserta didik kelas XI MIPA 8 di SMAN 1 Singaparna. Instrumen yang digunakan yaitu soal uraian, angket dan soal pilihan majemuk. Hasil penelitian menyatakan bahwa pada *Intrinsic Cognitive Load* (menerima dan mengolah informasi) diperoleh nilai rata-rata 5,7 dengan kategori sedang. Kemudian *Extranous Cognitive Load* (usaha mental saat pembelajaran berlangsung) diperoleh nilai rata-rata 6,1 termasuk kategori sedang. Kemudian *Germane Cognitive Load* (pemahaman setelah seluruh materi sistem indera tersampaikan) diperoleh nilai rata-rata 5,5 termasuk kategori sedang. Sehingga dapat disimpulkan bahwa pembelajaran materi sistem indera pasca pandemi covid-19 membuat peserta didik cukup terbebani pada beberapa konsep materinya, hal tersebut disebabkan dari aktivitas dan kesiapan belajar yang padat, perhatian peserta didik yang terbagi, bahasa ilmiah yang sulit dicerna, ingatan peserta didik yang menurun akibat banyaknya informasi yang diperlukan melebihi kapasitas memori kerjanya, beberapa penjelasan guru yang kurang jelas dan cenderung cepat, media ditampilkan hanya menggunakan gambar 2D.

**Kata Kunci:** Memori Kerja, Beban Kognitif *Intrinsic*, Beban Kognitif *Extranous*, Beban Kognitif *Germane*, Sistem Indra

## ABSTRACT

**NENG AYU MUSTIKA SAFARI. 2023. Analysis of Cognitive Load of Class XI Students After the Covid-19 Pandemic on Sensory System Material for the 2022/2023 Academic Year.** Department of Biology Education, Faculty of Teacher Training and Education, Siliwangi University

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*Each learner has a different working memory capacity. The number of activities and the complexity of the material cause the excess working memory capacity of students. This study aims to determine the cognitive load of students after the co-19 pandemic on sensory system material. The research was conducted descriptively quantitative. The sampling technique was purposive sampling. The research sample was 35 students of class XI MIPA 8 at SMAN 1 Singaparna. The instruments used are description questions, questionnaires and multiple choice questions. The results stated that the Intrinsic Cognitive Load (receiving and processing information) obtained an average value of 5,7 with a moderate category. Then Extranous Cognitive Load (mental effort during learning) obtained an average value of 6,1 including the moderate category. Then Germane Cognitive Load (understanding after all sensory system material is delivered) obtained an average value of 5,5 including the moderate category. So it can be concluded that learning the material of the sensory system after the covid-19 pandemic makes students quite burdened on some of the material concepts, this is due to busy activities, divided attention of students, scientific language that is difficult to digest, students' memory decreases due to the amount of information needed exceeding their working memory capacity, some of the teacher's explanations were unclear and tended to be fast, the media is displayed using only 2D images.*

**Keywords:** *Working Memory, Intrinsic Cognitive Load, Extranous Cognitive Load, Germane Cognitive Load, Sensory System*