

**ANALISIS PENGUASAAN KONSEP DASAR ILMU KIMIA SISWA  
KELAS XII SMA NEGERI 1 SERIRIT**

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**ABSTRAK**

Penelitian ini bertujuan menganalisis tingkat penguasaan konsep dasar ilmu kimia dan mengidentifikasi penyebab rendahnya penguasaan konsep dasar ilmu kimia pada siswa kelas XII di SMA Negeri 1 Seririt. Penelitian ini menggunakan pendekatan campuran (*mix method*) dengan desain *sequential explanatory*. Subjek penelitian ini adalah siswa kelas XII MIPA tahun ajaran 2025/2026. Objek penelitian adalah tingkat penguasaan konsep dasar ilmu kimia, meliputi subtopik zat murni (unsur dan senyawa), campuran (homogen, heterogen dan pemisahan campuran), dan partikel materi (atom, ion, molekul), serta penyebab rendahnya penguasaan siswa terhadap konsep dasar ilmu kimia. Data kuantitatif dikumpulkan melalui tes pilihan ganda yang diambil dengan teknik *total sampling* kemudian dianalisis dengan mencari sebaran data, rata-rata indikator per subtopik dan pengkategorian tingkat penguasaan konsep dasar ilmu kimia. Data kualitatif dikumpulkan melalui wawancara mendalam yang diambil dengan teknik *purposive sampling* kemudian dianalisis dengan menggunakan model *Miles and Huberman*, yaitu data *condensation*, penyajian data, dan penarikan kesimpulan, serta dilakukan juga uji kredibilitas data, yaitu *member check*. Hasil penelitian menunjukkan bahwa rata-rata indikator pada subtopik zat murni (unsur dan senyawa) sebesar 67,70% (rendah), campuran (homogen, heterogen, dan pemisahan campuran) sebesar 62,63% (rendah), dan partikel materi (atom, ion, dan molekul) sebesar 58,83% (sangat rendah). Distribusi tingkat penguasaan konsep ilmu kimia siswa pada kategori sangat tinggi sebesar 3,62%, kategori tinggi sebesar 15,22%, kategori sedang sebesar 10,87%, kategori rendah sebesar 34,78%, dan kategori sangat rendah sebesar 35,51%. Penyebab rendahnya penguasaan siswa kelas XII terhadap konsep dasar ilmu kimia adalah miskonsepsi, literasi rendah, dan tidak tahu konsep.

**Kata-kata kunci:** penguasaan konsep dasar ilmu kimia, zat murni, campuran, partikel materi.

**ANALYSIS OF THE MASTERY OF BASIC CHEMISTRY CONCEPTS  
AMONG TWELFTH-GRADE STUDENTS AT SERIRIT STATE HIGH  
SCHOOL 1**

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**ABSTRACT**

*This study aims to analyze the level of mastery of basic chemistry concepts and identify the causes of low mastery of basic chemistry concepts among 12th-grade students at Seririt State High School 1. This study employs a mixed-methods approach with a sequential explanatory design. The subjects of this study are 12th-grade MIPA students in the 2025/2026 academic year. The research objects are the level of mastery of basic chemistry concepts, covering the subtopics of pure substances (elements and compounds), mixtures (homogeneous, heterogeneous, and separation of mixtures), and particles of matter (atoms, ions, molecules), as well as the causes of students' low mastery of basic chemistry concepts. Quantitative data were collected through a multiple-choice test administered using total sampling, then analyzed by determining data distribution, the average score per subtopic, and categorizing the level of mastery of basic chemistry concepts. Qualitative data were collected through in-depth interviews conducted using purposive sampling, then analyzed using the Miles and Huberman model—namely data condensation, data presentation, and drawing conclusions—and a data credibility test, specifically member checking, was also conducted. The research results indicate that the average indicator score for the subtopic of pure substances (elements and compounds) was 67.70% (low), mixtures (homogeneous, heterogeneous, and separation of mixtures) was 62.63% (low), and material particles (atoms, ions, and molecules) was 58.83% (very low). The distribution of students' mastery of chemistry concepts was as follows: 3.62% in the very high category, 15.22% in the high category, 10.87% in the moderate category, 34.78% in the low category, and 35.51% in the very low category. The causes of the low mastery of 12th-grade students regarding basic chemistry concepts are misconceptions, low literacy, and lack of understanding of the concepts.*

**Keywords:** *mastery of basic chemistry concepts, pure substances, mixtures, particles of matter.*