

**ANALISIS MISKONSEPSI DAN FAKTOR PENYEBABNYA PADA
MATERI TERMOKIMIA DI SMA NEGERI 2 KUTA MENGGUNAKAN
TES DIAGNOSTIK PILIHAN GANDA ENAM TINGKAT BERBANTUAN
GOOGLE FORM**

Oleh

Amalia Annisa Putri, NIM 2013031002

**Program Studi Pendidikan Kimia, Jurusan Kimia, Fakultas Matematika dan
Ilmu Pengetahuan Alam**

ABSTRAK

Penelitian ini bertujuan mendeskripsikan dan menjelaskan konsep-konsep materi termokimia yang mengalami miskonsepsi pada siswa kelas XI di SMA Negeri 2 Kuta dan profil miskonsepsi serta faktor penyebabnya. Jenis penelitian adalah deskriptif kualitatif. Teknik pengambilan sampel penelitian adalah teknik *cluster sampling* dan *purposive sampling*. Subjek penelitian adalah seorang guru kimia kelas XI, 65 siswa kelas XI, buku paket kimia kelas XI, LKPD, video *youtube* termokimia, dan laman internet yang dikunjungi siswa. Objek penelitian adalah miskonsepsi siswa pada materi termokimia beserta faktor penyebabnya. Metode pengumpulan data yaitu observasi, tes, kuesioner, dan wawancara. Analisis data dilakukan secara deskriptif dengan cara mengumpulkan data-data berupa nilai dan pernyataan kemudian diolah dan dianalisis untuk menggambarkan miskonsepsi siswa dan faktor penyebabnya. Hasil penelitian menunjukkan bahwa siswa mengalami miskonsepsi pada semua konsep materi termokimia, terdiri atas konsep sistem dan lingkungan, konsep reaksi eksoterm dan reaksi endoterm, konsep persamaan termokimia, konsep diagram tingkat energi, konsep jenis-jenis perubahan entalpi reaksi standar, dan konsep penentuan perubahan entalpi reaksi dengan persentase yang berbeda-beda. Persentase miskonsepsi tertinggi yaitu konsep jenis perubahan entalpi reaksi standar sebesar 42,05% sedangkan persentase miskonsepsi terendah yaitu konsep diagram tingkat energi sebesar 24,62% dengan rata-rata persentase sebesar 33,27% yang termasuk kategori sedang. Faktor penyebab miskonsepsi siswa bersumber dari siswa sebesar 84,41%, buku paket kimia sebesar 21,38%, guru sebesar 13,85%, internet sebesar 9,64%, dan teman sejawat sebesar 5,03%.

Kata kunci: *google form*, miskonsepsi, termokimia, tes diagnostik

**ANALYSIS OF MISCONCEPTIONS AND THEIR CAUSATIVE FACTORS
ON THERMOCHEMISTRY MATERIAL IN SMA NEGERI 2 KUTA USING A
SIX-TIER MULTIPLE CHOICE DIAGNOSTIC TEST ASSISTED BY
GOOGLE FORMS**

By

Amalia Annisa Putri, NIM 2013031002

***Chemistry Education Study Program, Department of Chemistry, Faculty of
Mathematics and Natural Sciences***

ABSTRACT

This study aimed to describe and explain the concepts on thermochemistry material that experience misconceptions of grade XI students at SMA Negeri 2 Kuta, the misconception profile, and their causative factors. The type of research was descriptive qualitative. The research sampling techniques were cluster sampling and purposive sampling techniques. The research subjects were an XI grade chemistry teacher, 65 XI grade students, XI grade chemistry textbooks, LKPD, thermochemistry youtube videos, and internet pages visited by students. The object of the research were students' misconceptions on thermochemistry material and their causative factors. Data collection methods were observation, tests, questionnaires, and interviews. Data analysis was carried out descriptively by collecting data in the form of scores and statements then processed and analyzed to describe students' misconceptions and their causative factors. The results showed that students had misconceptions in all concepts of thermochemistry material, consisting of the concept of system and environment, the concept of exotherm reaction and endotherm reaction, the concept of thermochemical equation, the concept of energy level diagram, the concept of types of standard reaction enthalpy change, and the concept of determining the enthalpy change of reaction with different percentage. The highest percentage of misconceptions is the concept of standard enthalpy change type at 42.05% while the lowest percentage of misconceptions is the concept of energy level diagram at 24.62% with an average percentage at 33.27% which is in the medium category. The percentage of factors causing students' misconceptions came from students by 84.41%, chemistry textbooks by 21.38%, teachers by 13.85%, internet by 9.64%, and peers by 5.03%.

Keywords: *google forms, misconceptions, thermochemistry, diagnostic test*