

ABSTRACT

Sufriana Winda Pasaribu (01669220037)

THE EFFECTIVENESS OF MOLVIEW-BASED FLIPPED CLASSROOM ON CHEMISTRY CONCEPTS MASTERY, COLLABORATION SKILLS, AND CRITICAL THINKING OF STUDENTS AT SMAK TUNAS HARAPAN BOGOR

(91 pages + 31 table + 13 images + 16 appendices)

21st century skills are important in future jobs including collaboration skills and critical thinking skills. This is related to the ability to master concepts with complexity and chemical representation. This encourages teachers as educators to think about appropriate teaching methods. The aim of this research is to measure the level of effectiveness of implementing the Molview-based flipped classroom on the mastery of chemistry concepts, collaboration skills and critical thinking of class X students in chemistry subjects. This type of research is a one-group pretest-posttest design experimental research with a saturated sampling technique. Respondents in the research consisted of 48 class X students at SMAK Tunas Harapan Bogor. The collected data was analyzed using the Wilcoxon Signed-Rank test using JASP. The research results show that 1) the application of a Molview-based flipped classroom can improve students' mastery of chemistry concepts with a high level of effectiveness, 2) the application of a Molview-based flipped classroom can improve students' collaboration skills with a moderate level of effectiveness, 3) the application of a Molview-based flipped classroom can improve critical thinking skills of students with a moderate level of effectiveness.

Key word : *flipped classroom*, molview, chemistry concepts mastery, collaboration skills, critical thinking.

References : 62 (2003 - 2023)

ABSTRAK

Sufriana Winda Pasaribu (01669220037)

KEEFEKTIFAN *FLIPPED CLASSROOM* BERBASIS *MOLVIEW* TERHADAP PENGUASAAN KONSEP KIMIA, KETERAMPILAN KOLABORASI DAN BERPIKIR KRITIS SISWA DI SMAK TUNAS HARAPAN BOGOR

(91 halaman + 31 tabel + 13 gambar + 16 lampiran)

Keterampilan abad 21 merupakan hal yang penting dalam pekerjaan di masa mendatang termasuk keterampilan kolaborasi dan keterampilan berpikir kritis. Hal tersebut berkaitan kemampuan penguasaan konsep dengan kompleksitas dan representasi kimia. Hal tersebut mendorong guru sebagai pendidik memikirkan metode pengajaran yang sesuai. Tujuan penelitian ini adalah untuk mengukur tingkat keefektifan penerapan *flipped classroom* berbasis *molview* terhadap penguasaan konsep kimia, keterampilan kolaborasi, dan berpikir kritis siswa kelas X dalam mata pelajaran kimia. Jenis penelitian ini adalah penelitian eksperimen desain *one-group pretest-posttest* dengan teknik pengambilan sampel jenuh. Responden pada penelitian terdiri atas 48 siswa kelas X di SMAK Tunas Harapan Bogor. Data yang terkumpul dianalisis menggunakan uji Wilcoxon *Signed-Rank* dengan menggunakan JASP. Hasil penelitian menunjukkan bahwa 1) penerapan *flipped classroom* berbasis *molview* dapat meningkatkan penguasaan konsep kimia siswa dengan tingkat efektivitas tinggi, 2) penerapan *flipped classroom* berbasis *molview* dapat meningkatkan keterampilan kolaborasi siswa dengan tingkat efektivitas sedang, 3) penerapan *flipped classroom* berbasis *molview* dapat meningkatkan keterampilan berpikir kritis siswa dengan tingkat efektivitas sedang.

Kata kunci : *flipped classroom*, *molview*, penguasaan konsep kimia, kolaborasi, berpikir kritis.

References : 62 (2003 - 2023)