

ABSTRAK

Fitri, Nurul Rahmiah. 2022. Pengaruh Model Pembelajaran *Argumentatif Inquiry Blended Learning* (AIBL), *Argument Driven Inquiry* (ADI), *Guided Inquiry Based Learning* (GIBL) dan Keterampilan Proses Sains Terhadap Kemampuan Argumentasi Siswa pada Materi Kimia, Magister Pendidikan Kimia, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Jambi, Pembimbing I: Prof. Dr. M. Rusdi, S.Pd, M.Sc, Pembimbing II: M. Haris Effendi Hsb, S.Pd., M.Si., Ph.D

Kata Kunci: Kemampuan Argumentasi, Keterampilan Proses Sains, *Argumentatif Inquiry Blended Learning* (AIBL), *Argument Driven Inquiry* (ADI), *Guided Inquiry Based Learning* (GIBL)

Keterampilan proses sains (KPS) dan kemampuan argumentasi dapat dilatih dalam pembelajaran dengan cara memilih model yang cocok dan sesuai untuk mengembangkan keterampilan tersebut. Salah satu model yang sintak pembelajarannya cocok dengan komponen KPS dan kemampuan argumentasi siswa adalah model inkuiri. Model inkuiri telah banyak diterapkan seperti *Guided Inquiry Based Learning* (GIBL) dan dimodifikasi seperti model pembelajaran *Argument Driven Inquiry* (ADI) dan *Argumentatif Inquiry Blended Learning* (AIBL), dimana model pembelajaran ADI dan AIBL dalam sintak pembelajarannya sudah terintegrasi dengan kegiatan argumentasi. Tujuan dari penelitian ini untuk menguji pengaruh model pembelajaran dan keterampilan proses sains siswa terhadap kemampuan argumentasi siswa. Desain penelitian yang digunakan adalah desain faktorial 3 x 2 dengan metode *mixed method*. Instrumen penelitian berupa tes kategorisasi KPS, lembar observasi keterlaksanaan model, dan tes esai untuk melihat kemampuan argumentasi siswa di awal dan akhir pembelajaran dalam bentuk *pretest* dan *posttest*. Analisis data kualitatif dilakukan dengan merangkum bagaimana adanya aktivitas pembelajaran di kelas AIBL, ADI, dan GIBL. Sedangkan analisis data kuantitatif menggunakan statistik deskriptif N-gain, uji *t-dependent*, dan uji Anova. Hasil penelitian menunjukkan bahwa: (1) terdapat pengaruh model pembelajaran terhadap kemampuan argumentasi siswa; (2) terdapat pengaruh tingkat KPS terhadap kemampuan argumentasi siswa; (3) tidak terdapat interaksi antara model pembelajaran dan tingkat KPS terhadap kemampuan argumentasi siswa. Untuk melihat sejauh mana perbedaan signifikansi antar kelompok uji terhadap variabel yang digunakan, maka dilakukan uji lanjutan menggunakan uji tukey dan diperoleh hasil bahwa terdapat perbedaan secara signifikan argumentasi siswa yang diajarkan dengan menggunakan model pembelajaran AIBL, ADI, dan GIBL.

ABSTRACT

Fitri, Nurul Rahmiah. 2022. The Effect of Argumentative Inquiry Blended Learning, Argument Driven Inquiry, Guided Inquiry Based Learning and Science Process Skills on Students' Argumentation Ability in Chemistry, Masters in Chemistry Education, Faculty of Education and Teacher Training, Universitas Jambi, Pembimbing I: Prof. Dr. M. Rusdi, S.Pd, M.Sc, Pembimbing II: M. Haris Effendi Hsb, S.Pd., M.Si., Ph.D

Keywords: Argumentation ability, Science Process Skills, Argumentative Inquiry Blended Learning (AIBL), Argument Driven Inquiry (ADI), Guided Inquiry Based Learning (GIBL)

The science process skill (KPS) and argumentation ability can be trained in learning by choosing a suitable and appropriate model to develop these skills. One of the models whose learning syntax matches the KPS component and students' argumentation ability is the inquiry model. Inquiry models have been widely applied, such as Guided Inquiry Based Learning (GIBL), and modified, such as the Argument Driven Inquiry (ADI) and Argumentative Inquiry Blended Learning (AIBL) learning models, where the ADI and AIBL learning models in the learning syntax have been integrated with argumentation activities. The purpose of this study was to examine the effect of learning models and students' science process skills on students' argumentation ability. The research design used a 3 x 2 factorial design with a mixed method. The research instruments were KPS categorization tests, observation sheets, and essay tests to see students' argumentation ability at the beginning and end of learning in the form of a pretest and posttest. Qualitative data analysis was carried out by summarizing how there were learning activities in AIBL, ADI, and GIBL classes. Meanwhile, quantitative data analysis used descriptive statistics such as the N-Gain, t-dependent test, and ANOVA test. The results showed that: (1) there was an effect of the learning model on students' argumentation ability; (2) there is an effect of KPS level on students' argumentation ability; and (3) there is no interaction between the learning model and the level of KPS on students' argumentation ability. To see the extent of the difference in significance between the test groups on the variables used, further tests using the Tukey test were conducted, and the results showed that there were significant differences in the arguments of students taught using the AIBL, ADI, and GIBL learning models.