

ABSTRAK

Ayub Wimatra. NIM: 061188230048. Pengembangan Konsep Taruna tentang Dasar-Dasar Komputer dengan Pendekatan Konstruktivisme di Akademi Teknik dan Keselamatan Penerbangan Medan. Penelitian Tindakan Kelas. Tesis. Program Studi Teknologi Pendidikan. Universitas Negeri Medan. 2009.

Penelitian tindakan kelas ini bertujuan untuk: (1) meningkatkan hasil belajar Dasar-dasar Komputer sehingga konsep Taruna berkembang, (2) meningkatkan performa instruktur dalam memberikan materi dengan menggunakan metode dan kurikulum yang sesuai dengan karakter dan kondisi Taruna, dan (3) mengetahui dampak penerapan pendekatan konstruktivisme pada Taruna untuk mata kuliah Dasar-Dasar Komputer pokok bahasan Local Area Network (LAN).

Penelitian dilakukan di Akademi Teknik dan Keselamatan Penerbangan Medan pada 18 Taruna Angkatan III Teknik Telekomunikasi dan Navigasi Udara Semester II Tahun Akademik 2008. Metode penelitian adalah penelitian tindakan kelas yang dilakukan secara kolaboratif. Instrumen penelitian yang digunakan adalah: (1) tes tertulis untuk mengetahui konsep Taruna, (2) wawancara untuk mengetahui tanggapan instruktur dan Taruna tentang penerapan model pembelajaran, dan (3) observasi untuk memperoleh data tentang kegiatan instruktur dan Taruna dan perkembangan keterampilan berpikir kreatif Taruna selama proses belajar mengajar. Uji coba butir soal dilakukan sebelum penelitian dimulai pada 44 orang Taruna Teknik Telekomunikasi dan Navigasi Udara Angkatan III dan Diploma III Pengatur Teknik Radio Angkatan IV untuk menguji validitas, reliabilitas, tingkat kesukaran, daya pembeda dan pengecoh butir soal. Data dianalisis dengan analisis deskriptif menggunakan persentase.

Hasil penelitian menunjukkan bahwa: (1) konsep awal Taruna tentang pokok bahasan LAN bervariasi (rata-rata 17,72%), (2) penerapan pendekatan konstruktivisme pada konsep LAN meningkat (66%), (3) penerapan pendekatan konstruktivisme dapat meningkatkan aspek keterampilan berpikir kreatif dalam menguatkan antisipasi, menemukan hal-hal yang diharapkan, tidak diharapkan dan sangat diharapkan, dan yang dipertahankan, (4) penerapan pendekatan konstruktivisme dalam pembelajaran cenderung dapat mengurangi kegiatan Taruna yang tidak berkaitan dengan proses pembelajaran, dan (5) instruktur dan Taruna memberikan respons positif tentang penerapan pendekatan konstruktivisme dalam pembelajaran.

Berdasarkan hasil penelitian dapat disimpulkan bahwa penerapan pendekatan pembelajaran pada penelitian tindakan kelas memberikan pengaruh positif terhadap perkembangan konsep Taruna tentang pokok bahasan LAN yang mengimplikasikan bahwa pendekatan konstruktivisme dapat meningkatkan performa instruktur, yang juga berperan sebagai fasilitator, advisor dan motivator. Oleh karena itu, maka disarankan untuk menerapkan pendekatan konstruktivisme karena memberikan keefluasan dalam mengembangkan konsep Taruna secara jauh lebih baik dalam strategi pengajaran pokok bahasan LAN.

ABSTRACT

Ayub Wimatra. NIM: 061188230048. The Development of Cadets Concept on Basic Computer through Constructivism Approach at Civil Aviation Safety and Engineering Academy of Medan. A Classroom Action Research. A Thesis. Education Technology Study Program. State University of Medan. 2009.

The objectives of this classroom action research were to: (1) increase the learning achievement of basic computer so that cadets' concept developed, (2) increase the instructor classroom performance in presenting the learning materials using the method and curriculum in accordance with the cadets' character and condition, and (3) discover the impact on cadets as the effect of the implementation of constructivism approach on Basic Computer subject with the discussion topic Local Area Network (LAN).

The research was conducted at Civil Aviation Safety and Engineering Academy of Medan, comprising 18 cadets of Intake III Diploma III Air Navigation and Telecommunication Engineering Semester II 2008 Academic Year. The research method was classroom action research conducted collaboratively. The research instruments used were: (1) a written test to reveal the cadets' concept, (2) an interview to obtain the comments of the instructor and cadets on the application of instructional model, and (3) observation conducted to obtain data on the activities done by the instructor and cadets, and the skill to think creatively of the cadets that developed during the teaching - learning process on progress. The try out of the test items was conducted to 44 cadets as tessees from Engineering Telecommunication and Air Navigation Intake III and Diploma III Radio Engineering Intake IV before the research started, in order to test the validity, realibility, level of difficulty, differentiator and distractor of test items. The data were analyzed with descriptive analyses using percentages.

The research findings reveal that: (1) the cadets prior concept of LAN varied (on average 17.72%), (2) the application of constructivism approach on the concept of LAN developed (66%), (3) the application of constructivism approach could develop the aspect of creative thinking skill in strengthening the anticipation, finding out the expected, unexpected and very expected cases, and maintained, (4) the application of constructivism approach in the instructional process had a tendency to decrease cadets' activities which were not related with the teaching-learning, and (5) the instructor and cadets gave positive comments on the conduction of instruction through the application of constructivism approach.

Based on these findings, it can be concluded that the application of constructivism in classroom action research has a positive impact on the development of the cadets' concept on LAN which implies that constructivism approach can improve the instructor performance who also has the roles as facilitator, adviser, and motivator. Therefore, it is suggested that constructivism approach should be applied in order to give the freedom of the development of cadets' concept in a much better way in the instructional strategy for the topic discussion of LAN.