RANCANG BANGUN *ADAPTIVE MOBILE LEARNING* BERDASARKAN MODEL GAYA BELAJAR FELDER SILVERMAN

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ABSTRAK

Setiap orang mempunyai gaya belajar yang berbeda-beda. Pembelajaran yang sesuai dengan gaya belajar sangat penting untuk proses pembelajaran. Penerapan *e-learning* dianggap kurang efektif dalam waktu dan tempat, karena masih terbatas oleh penggunaan komputer PC atau laptop. Berbeda dengan menggunakan perangkat *smartphone* penggunaannya bisa diakses kapan saja dan dimana saja dengan mudah. Selain itu, hampir semua siswa sudah mempunyai *smartphone* maka penerapan media pembelajaran berbasis *smartphone* lebih mudah diterapkan. Untuk memenuhi itu maka dibuatlah sebuah sistem *adaptive mobile learning* berbasis Android yang bisa memberikan konten pembelajaran sesuai dengan gaya belajarnya. Proses adaptif dilakukan dengan cara mendeteksi gaya belajar pada siswa dengan metode *Litteratur-based* kemudian memberikan rekomendasi konten belajar dengan menggunakan metode *item bases collaborative filtering*. Dari penelitian ini mendapatkan hasil 1) aplikasi *adaptive mobile learning* mendapatkan penilaian sangat baik dari siswa dengan rata-rata nilai 83,9%. 2) *Adaptive mobile learning* dapat meningkatkan kemampuan peserta didik yang diukur dari kenaikan nilai tes *pre-test* dan *post-test*. Rata-rata nilai *pre-test* yang didapatkan siswa adalah 37,44 dan rata-rata nilai *post-test* 76,67. Peningkatan tersebut memiliki rata-rata *gain sebesar* 0,63 yang termasuk dalam kategori sedang. 3) Pendeteksian gaya belajar dengan metode *literatur-based* yang peneliti gunakan mendapatkan hasil yang cukup baik, dengan dimensi pemrosesan (*active/reflective*) bernilai 67,31%, dimensi persepsi (*sensing/intuitive*) bernilai 71,15%, dimensi input (*visual/verbal*) bernilai 75%.

Kata Kunci: Adaptive Mobile Learning, Gaya Belajar, Android.

DEVELOPMENT OF ADAPTIVE MOBILE LEARNING BASED ON FELDER SILVERMAN LEARNING STYLE MODEL

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ABSTRACT

Each person has different learning style or method. A suitable and easy adaptive learning is very important for learning process. The application of e-learning is considered less effective in time and place, because it is still limited by the use of PC or laptop computers. Unlike using a smartphone device its use can be accessed anytime and anywhere easily. In addition, almost all students have smartphones that implement smartphone-based learning media that are easier to implement. To fulfil a successful learning process, there are *adaptive mobile learning* based on Android system, which can deliver a suitable learning content according to every user's learning style. Adaptive process runs by detection and determined user's learning style with *Literature-based* method, and then create some learning content recommendation using *item bases collaborative filtering* method. This research creates some result such as 1) *Adaptive mobile learning* application got excellent assessment from student with average score in 83,9%. 2) *Adaptive mobile learning* has increase student's ability, based on the increase of student's score comparing *pre-test* and *post-test*. The average student's *pre-test* score is 37,44, while the average of student's *post-test* score is 76,67. The increase have average *gain* in the amount of 0,63 which belong to medium rate category. 3) Learning style detection with *literature-based* method which is being used in this research, produce a good result, it is proved by the processing dimension (*active/reflective*) value in the amount of 67,31%, perception dimension value (*sensing/intuitive*) in the amount of 71,15%, and input dimension (*visual/verbal*) in the amount of 75%.

Key words: *Adaptive Mobile Learning, Android, Learning Style*