

**INTELLIGENT TUTORING SYSTEM UNTUK MENGUKUR
KEMAMPUAN KOGNITIF PADA PEMBELAJARAN COLLABORATIVE
PROBLEM SOLVING**

Oleh

Ronaldo Simanjuntak — ronaldo_simanjuntak@student.upi.edu

1406979

ABSTRAK

Kelompok merupakan salah satu hal terpenting dalam pembelajaran *Collaborative Problem Solving*, maka dari itu dibutuhkan komposisi kelompok yang ideal agar diskusi kelompok dapat berjalan dengan baik dan berdampak positif bagi setiap individu dalam kelompok. Dalam penelitian ini pengelompokan pada kelas eksperimen dilakukan dengan mengacu pada prinsip-prinsip Myers Briggs Type Indikator (MBTI) di mana kelompok dibuat berdasarkan tipe kepribadian, sedangkan kelas kontrol dilakukan secara acak. Setelah dilakukan pembelajaran Collaborative Problem Solving selama 3 pertemuan didapatkan hasil belajar kelas eksperimen yang menggunakan pengelompokan berdasarkan tipe kepribadian lebih tinggi daripada kelas kontrol yaitu rata-rata indeks gain $\langle g \rangle$ kelas eksperimen sebesar 0,5 sedangkan kelas kontrol 0,3. Ini menunjukkan bahwa kelompok yang dibentuk berdasarkan tipe kepribadian mengalami peningkatan kemampuan kognitif lebih tinggi dari kelompok yang dibentuk secara acak.

Kata Kunci: *Collaborative Problem Solving (CPS)*, Pembelajaran Abad 21, Kelompok Belajar, *Myers Brigs Type Indikator (MBTI)*, *Intelligent Tutoring System (ITS)*

INTELLIGENT TUTORING SYSTEM TO MEASURE COGNITIVE ABILITY IN COLLABORATIVE PROBLEM SOLVING LEARNING

By

Ronaldo Simanjuntak — ronaldo_simanjuntak@student.upi.edu

1406979

ABSTRACT

Group is one of the most important things in Collaborative Problem Solving learning, hence the ideal group composition is needed so that group discussion can run well and have positive impact for each individual in the group. In this study, groupings in the experimental class were conducted with reference to the principles of the Myers Briggs Type Indicator (MBTI) in which groups were made based on personality types, while the control classes were randomly assigned. After the Collaborative Problem Solving learning for 3 meetings held, the experimental class learning result which is using grouping based on the personality type is higher than the control class, which is the average gain index <g> the experimental class is 0,5 while the control class is 0,3. This suggests that groups formed by personality type have a higher enhancement in cognitive abilities than randomly formed groups.

Keyword: *Collaborative Problem Solving (CPS)*, 21st Century Learning, Group Formating, *Myers Brigs Type Indikator (MBTI)*, *Intelligent Tutoring System (ITS)*