

## ENHANCING AND ASSESSING STUDENT TEACHERS' CREATIVITY USING BRAINSTORMING ACTIVITIES AND ICT-BASED MORPHOLOGICAL ANALYSIS METHOD

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### ABSTRACT

*Creativity is often known as a characteristic that a person possesses, a product or outcome that is regarded as original, and a process by which an unusual, novel or suitable outcome or solution is obtained. According to Segal (2001), creativity involves the exercise of imagination to come out with new, unique and original ideas and products. Many researchers strongly argued that creativity could be taught and fostered (Cropley, 2001; Davis, 1999; Houtz, 2003; Treffinger & Isaksen, 2001; Onda, 1994; Torrance & Safter, 1999). This paper explores the use of Information and Communication Technology (ICT) to assess and foster creativity of student teachers' using brainstorming and Morphological Analysis Method (MA Method). A self-developed integrated system consists of multimedia training modules for fostering creativity and measuring creativity was programmed for the experiment. A sample of ninety-seven student teachers taking B. Ed courses of a public university in Sabah, East Malaysia participated in the study aimed at measuring the creativity traits of the subjects and improving their respective creative potentials. The research found that the assessment of creativity traits such as fluency, flexibility, elaboration and originality using computer is successful using definitions and algorithms adapted from Torrance's TTCT and Guilford's Alternative Task (Torrance & Ball, 1984; Guilford, 1977). It was also found that 85 out of the 97 subjects (87.6%) managed to improve their respective fluency, flexibility, elaboration and originality scores in the summative practice. The improvement of their creative potentials was largely attributed to the effective implementation of the MA Method in the brainstorming activities in the practice. The paper concludes by recommending the MA Method to be integrated into teaching and learning activities of academic courses to improve the creative potentials of student teachers in the Faculty of Education of the university.*

*Keywords: creativity, brainstorming, morphological analysis, multimedia*