ETHICS IN HIGH-QUALITY RESEARCH

PROGRAM BOOK

Institute of Research and Community Services Yogyakarta State University
May, 6-7, 2015
INTRODUCTION CONGRESS ON
EDUCATIONAL RESEARCH AND INNOVATION (ICERI 2015)
ETHICS IN HIGH-QUALITY RESEARCH

May 6-7, 2015 | UNY Hotel | Yogyakarta State University

Organized by:
Institute of Research and Community Services
Yogyakarta State University
MESSAGE FROM THE RECTOR OF YOGYAKARTA STATE UNIVERSITY

Welcome to Yogyakarta, Indonesia!

It is a great honor and pleasure for me to welcome you all to the 3rd International Conference on Educational Research and Innovation held in Yogyakarta, Indonesia. On behalf of Yogyakarta State University and the committee, let me extend my warmest greetings and appreciation to all speakers and participants who have travelled hundreds or even thousands of miles by various transportation means to come to Yogyakarta to attend this conference. It is my strong belief that your safe journey has been due to the blessings granted by God the Almighty and the Most Merciful to Whom we without any further due have to express our gratitude and praise.

It is indeed a privilege for Yogyakarta State University to have the opportunity to organise this very important conference in which educational researchers and practitioners get together to share ideas, experiences, expectations, and research findings. This conference is held as one of the agendas of Yogyakarta State University to celebrate its 51st anniversary. The theme of this year’s conference is “Ethics in High-Quality Research”.

Research is one of the activities among the academic members of a university. It is a systematic effort to solve the problems or answer the questions by collecting data, formulating the generalities based on the data, then finding and developing organized knowledge by scientific method. It is
University in encouraging researchers to conduct high-quality researches, an International Conference on Educational Research and Innovation (ICERI) is held under the umbrella theme of Ethics in High-Quality Research. It provides teachers/lecturers, education practitioners, college students, and policy makers the opportunity to share their knowledge, experiences, and research findings which are innovative and relevant to develop the educational practices focusing on the process and product.

This third conference is aimed at discussing the papers on the research findings related to research ethics, and researches on character education, teaching innovations, as well as educational policies. It is expected that this conference will reach its declared objectives successfully as a strategic forum to yield recommendations on the importance of ethics in the research to produce high-quality research for the benefits of the human’s welfare.

To conclude, let me wish you a fruitful discussion during the conference and an enjoyable stay in Yogyakarta. And finally, hopefully all materials in this conference compiled into a proceeding are useful for us to improve the quality of education and educational research.

Thank you very much for your attention.

Wassalamu’alaikum warrahmatullah wabarakatuh.
May peace and God’s blessings be upon you all

Yogyakarta, 6 May 2015

Rector,

Prof. Dr. Rochmat Wahab, M.Pd., M.A.
THE IMPLEMENTATION OF BLENDED LEARNING AS A INSTRUCTIONAL STRATEGY TO LEARNING CNC PROGRAMMING

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Abstrak
Learning CNC has been done with face-to-face, with the physical presence of teachers in the classroom. The strategy used is direct instruction. Activity expanded practice and transfer done by assigning homework. CNC learning with direct instruction strategy thus has drawbacks, including; (1) The learning activity is centered on the teachers so that students tend to be passive, less independent, less initiative, (2) instructional time provided much taken to convey and discuss the theory / concept that less provide experiential learning to apply the concept to solve the problems of programming NC; (3) can not be done individually learning, and (4) most of the students have not been able to achieve the learning objectives. Weakness CNC learning with direct instruction is trying to be repaired by applying blended learning approach, that an approach that combines and aligning between face to face approach and online learning. The essence of the application of online learning is the use of technology to expand and improve the self-learning opportunities for students through the provision of materials and self-learning tasks that enrich, which is aligned with the face-to-face learning approach. This combination is an attempt to present the best of the two strategies / learning models, that the advantages of online learning combined with the advantages of learning in a traditional classroom. In the CNC learning using blended learning approach, providing motivation or conditioning class, material explanation, demonstration, imitation practice, checking understanding and feedback to learners, is implemented and regulated by the learners themselves independently at home or outside the classroom through learning online or with computer assisted learning. Teaching materials can be downloaded online and learn yourself by learners at home or outside the classroom. Similarly, tests mastery of the material, can be done online by learners at home, and test scores as feedback can be directly obtained learners. Activity of students in the classroom is to practice completing tasks such as troubleshooting of NC programming using the concepts that have been studied, with teacher assistance. Activities of a teacher in the classroom became focused on giving assistance learners to practice and expanded transfer, or completing tasks such as problem solving. Application of blended learning approach to CNC learning is able to increase the independence of learners, enhance the learning experience especially in NC programming and NC programming problem solving, as well as improving mastery/competence of learners in preparing the NC part program.

Keywords: CNC learning, learning strategy, blended learning