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TECHNOLOGY USE TO SUPPORT KNOWLEDGE CREATION PROCESS MODEL IN GROUP PROBLEM SOLVING

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ABSTRACT

This thesis proposed the technology use to support knowledge creation process model in group problem solving. The current technology use focuses on facilitating the dissemination of information sharing and knowledge, it lacks the support for knowledge creation process. In group problem solving, valuable tacit knowledge are created often not captured. Knowledge creation becomes more complex when it involve group of individual. A qualitative research approach is employed in this research. This research was carried out in three stages which are: (i) input, where the conceptual framework is developed; (ii) transformation, which involved data collection and analysis; (iii) output, where knowledge creation model is developed, and the mapping of technology use is proposed followed by the enhancement of the current platform, BENAR. the mapping of technology use and enhancement of the current platform BENAR. The research site was at Saudi Arabia, University of Ha'il specifically at the department of educational technology. Twelve respondent are chosen for data collection and eight experts are selected for model validation. The study discovered that knowledge creation process happens in four stages in group problem solving which are: (i) defining the problem, (ii) finding solutions, (iii) development of action plan and (iv) implementation and evaluation of the action plan. The technology use to support knowledge creation process model includes collaborative technology which are, group meetings, resources sharing, texting and drawing modules. This research contributed toward new knowledge through the development of a knowledge creation process model. which drew upon the insights of real users. The practical contribution is the development of HN Platform which can be used by the student to support knowledge creation process in group problem solving.

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CHAPTER ONE
INTRODUCTION

This chapter presents the background information of the research, the problem statement leading to the study, research questions and objectives guiding the research and is addressed in this study, scope of the study, significance of the study and the organization of the chapters that compliment in developing technology platform for group problem solving.

1.1 Background of Research

Group work inspires members to learn in the educational environment and has increasingly gained significance within the learning environment (Horts & Besseyre, 2002). The integration of group learning initiative has proven to play an important role in promoting academic goal through knowledge creation. Proponents of collaborative learning have shown that small groups support academic learning by allowing exchange of ideas (Horts & Besseyre, 2002). This form of interactive learning increase knowledge among participants and provide a platform to share essential information. Earlier study has advocated for collaborative groups learning within the educational context in order to promote a high level of thought and knowledge through exchanging as well as retaining important information (Opie, 2000).

Study has shown that most stakeholders in education perceived that the integration of group work within the learning context has not been fully incorporated into the teaching methodologies (Clark, 2003). According to Clark (2003), group problem solving can be inspired to meet certain education requirements that were advocated for by the Literary Societies that prevailed during the 20th century in Colonial America. Education groups were thus used as a suitable platform through which learners would gain social recognition and to boost group problem solving capability. Although this development perpetuated to the rapid development of collaborative learning, group work has rapidly been used for more genuine reasons intended to solve many problems in the educational setting (Tahir et al., 2013). This