A FRAMEWORK FOR ASSESSING KNOWLEDGE TRANSFER BETWEEN LEARNERS AND INSTRUCTOR THROUGH EXTERNALIZATION PROCESSS

KORAWAN SUEBSOM

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ABSTRACT

Knowledge transfer is important in the educational system. Most universities emphasize the effectiveness of knowledge transfer from the instructors to learners since the effectiveness of knowledge transfer can improve teaching methods. In the process of knowledge transfer from the instructors and learners, the three key characteristics of knowledge, knowledge ambiguity, knowledge disruption and knowledge distribution can cause problems in the knowledge transfer and thus affect the externalization of learners.

This study is aimed in constructing a framework for assessing the knowledge transfer, by way of online learning, from the instructors to the learners and to examine the three key characteristics of knowledge and their relationship with the transfer process and the learning outcomes. The study used a mixed method design using the data collected from three universities in Southern Thailand. The data was analyzed using descriptive statistics and multiple regressions. The study too used the qualitative design for content analysis of the data collected from weblogs. The data was analyzed to determine the knowledge that learners gained and also the learners' reflection of the knowledge transfer. Using this analysis the effectiveness of online instructions from the instructors to learners was determined.

The research findings revealed some significant results involving the three key characteristics of knowledge. The knowledge of learners was explained by 21.5 percent of knowledge ambiguity. In addition, 40.3 percent of perceived knowledge was explained by knowledge distribution. Finally, 41.3 percent was explained the learners'

satisfaction when using tools and teaching techniques for knowledge distribution. The three key characteristics of knowledge together were, therefore, able to explain 64.3 percent of the learning outcomes.

There are major important implications, for theory, as developed from this study: (1) A framework for assessing knowledge transfer can contribute much to the instructors and learners in knowing what knowledge that the instructors can transfer to learners and what knowledge is gained by the learners. This framework is useful for the instructors in their evaluation of knowledge transfer by learners. The knowledge can be transferred through online learning from the instructors to learners using methods and tools that are appropriate for knowledge transfer. (2)   The knowledge gained is influenced by knowledge ambiguity. It is hoped that the instructor or instructors first of all find the appropriate methodology, in their efforts, to transfer knowledge to learners in the classroom and thus improve or make clear the knowledge before the transfer occurs.

(3) A strong predictor of learners' behavior is knowledge disruption and as such it would be useful for the instructors to know the behavior of learners when using technology as a tool in transferring knowledge. (4) Another strong predictor for perceiving knowledge is knowledge distribution. The instructors need to know the prior knowledge of learners by testing the level of knowledge of the learners, whether it is low, medium or high before selecting the right methods to transfer knowledge.

(5) Learners' satisfaction of tools and teaching techniques are also influenced by knowledge distribution. The instructors need to create information details which are suitable for the course. The study suggests that the instructors should allow learners time to study and use a program. In addition, the feedback of learners from weblogs do tell

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the instructors what the learners think of the knowledge transfer process, and what knowledge that can be externalized into documents from the process of knowledge transfer between the instructors and learners.

ABSTRAK

Pemindahan Pengetahuan adalah sangat penting dalam sistem pengajaran. Kebanyakan universiti menekankan kesan pemindahan pengetahuan dari pengajar kepada pelajar kerana keberkesanan pemindahan ini dapat memperbaiki kaedah pengajaran. Dalam proses pemindahan pengetahuan dari pengajar kepada pelajar, tiga ciri pengetahuan iaitu kekaburan pengetahuan, kegangguan pengetahuan dan pengagihan pengetahuan boleh menimbulkan masalah dalam pemindahan dan ini boleh mengganggu pembelajaran para pelajar.

Tujuan kajian ini adalah untuk membentuk satu rangka kerja bagi tujuan menilai pemindahan pengetahuan, melalui pengajian *online*, dari pengajar kepada pelajar dan mengkaji ketiga-tiga ciri pengetahuan serta perhubungan mereka dalam proses pemiindahan dan hasil pembelajaran. Kajian ini menggunakan rekabentuk kaedah pelbagai dengan memperolehi data dari tiga universiti di Selatan Thailand. Data ini kemudian dianalisis melalui statistik diskriptif dan angka kandungan regresif. Dalam kajian ini, rekabentuk kualitatif digunakan dalam analisis kandungan dari data yang diperolehi dari *weblog*. Data ini dianalisis untuk menentukan pengetahuan yang pelajar telah perolehi dan juga refleksi pelajar terhadap pemindahan pengetahuan. Melalui analisis ini keberkesanan pengajaran secara *online* dari pengajar kepada pelajar dapat ditentukan.

Kajian ini menunjukkan beberapa keputusan penting yang merangkumi ketiga-tiga ciri pengetahuan. Pengetahuan pelajar dapat menjelaskan 21.5% kekaburan pengetahuan. Manakala, 40.3% dijelaskan melalui pengagihan pengetahuan dan akhir sekali, 41.3%

dijelaskan melalui kepuasan pelajar melalui kegunaan alat dan teknik pengajaran. Ketiga-tiga ciri ini dapat menjelaskan 64.3 % dari keberhasilan pengajaran.

Implikasi-implikasi teori yang diperolehi dari kajian ini ialah:

(1)   Satu rangka   kerja untuk mengkaji pemindahan pengetahuan boleh menjelaskan jenis pengetahuan para pengajar dapat dipindahkan kepada pelajar dan apakah pengetahuan yang dapat diperolehi oleh pelajar. Rangka kerja ini sangat penting bagi pengajar dalam penilaian pemindahan pengetahuan oleh pelajar.   Pengetahuan dapat dipindah melalui pengajaran *online* dari pengajar kepada pelajar melalui kaedah dan alat-alat yang sesuai dalam pemindahan pengetahuan.

(2)   Pengetahuan yang diperolehi dipengaruhi oleh kekaburan pengetahuan. Oleh kerana itu para pengajar diharap dapat mencari kaedah yang sesuai, dalam usaha mereka, dalam pemindahan pengetahuan kepada para pelajar dalam bilik darjah dan dengan cara ini dapat memperbaiki atau menjelaskan pengetahuan tersebut sebelum pemindahan pengetahuan berlaku.

(3)   Satu ramalan kelakuan pelajar adalah kegangguan pengetahuan. Jadi adalah baik untuk para pengajar mengenali kelakuan pelajar dalam kegunaan teknologi sebagai satu alat dalam pemindahan pengetahuan.

(4)   Satu ramalan untuk mengetahui pengetahuan adalah pengagihan pengetahuan. Para pengajar harus tahu pengetahuan yang sediaada pada pelajar dengan menguji tahap pengetahuan mereka; adakah ia rendah, serdahana,atau tinggi sebelum satu pemilihan kaedah yang sesuai dalam pemindahan pegetahuan berlaku.

(5)   Kepuasaan pelajar terhadap alat dan teknik kaedah pengajaran juga dipengaruhi oleh pengagihan pengetahuan. Jadi para pengajar harus membina maklumat terperinci dan sesuai untuk kursus tersebut. Kajian ini berpendapat bahawa para pengajar harus membenarkan para pelajar lebih masa untuk mengkaji dan mengguna sesuatu program.   Tamabahan pula, maklumbalas dari para pelajar melalui weblogs memberitahu pengajar apa yang difikirkan oleh pelajar tentang proses pemindahan pengetahuan, dan jenis pengetahuan yang boleh dizahirkan dalam dokumen-dokumen dari proses pemindahan pengetahuan di antara pengajar dan pelajar.

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CHAPTER 1

INTRODUCTION

1.1 Background

This thesis looks at the effectiveness of knowledge transfer, when using the assessment model to assess knowledge transfer from the instructors to learners. In addition, this thesis uses weblogs that learners have externalized their knowledge in and reflected on in the process of knowledge transfer in an educational system that aims to offer professional opportunities for the learners. Knowledge, as we know it, not only will affect an individual's capability but will also lead him or her to perform better outside the walls of the university.

Knowledge includes both experience and understanding by learners in the educational system and the information artefacts, such as homework, documents, projects and reports available within the university and the world outside (Nonaka et al., 2000; Argote et al,2000). Knowledge can exist in two primary forms, explicit knowledge and tacit knowledge. While explicit knowledge is expressed and transferred in the form of documents and systematic methods by way of rules and procedures (Nonaka et al., 1995; Gouza, 2006), tacit knowledge is highly personalized and hard to formalize. It is embedded in the human mind and body as ideas, insight, skills and experiences. This type of knowledge, communicated to others, as tacit knowledge is "intangible" and is in the minds of the holders (Gourlay, 2006). To convert tacit knowledge to explicit knowledge

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