THE IMPACT OF STRUCTURED WALKTHROUGHS ON TRANSFER OF KNOWLEDGE IN AN ACADEMIC SETTING

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ABSTRACT

Several features have strong effect on the transfer of knowledge. Most of these features including direct experience, common elements among similar cases, contrasting cases and multiple contexts, frequent feedback, and reciprocal teaching all are present in structured walkthroughs. In this study, it was concluded that structured walkthroughs do have positive results in transferring knowledge and broadening the student's tacit knowledge base by exposing them to information created in a new learning environment.

Introduction

It appears that organizations are converting themselves into organizations of knowledgeable specialists in order to remain competitive. In order to keep the 'edge', these organizations will need to have the ability to respond quickly to customers' needs, create new markets, develop new products, and make an attempt to dominate the emergent of new technologies [5]. The secret to such success will lie in transfer of knowledge and managing the creation of new knowledge. The recognition of creating new knowledge is not a matter of processing objective information, but rather tapping the tacit and often highly subjective insights, intuitions, and hunches of individual employees and making those insights available for testing and use by the organization as a whole. The organization is not a machine but a living organism, and a

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knowledge-creating organization is as much about ideals as it is about ideas. Because new knowledge begins with the individual, making personal knowledge available to others is the central activity of a knowledge-creating organization. Knowledge-creation requires learning organizations, and it takes place continuously and at all levels of the organization. Well-managed transfer of knowledge is vital to learning organizations. One might define the transfer of knowledge as a systematic exchange of skills and practices between two or more parties. The intent is to harness an organization's collective expertise and experiences so that it will be made available when other people need it, and wherever it is needed.

Transfer of Knowledge

Early research on the transfer of knowledge emphasized the similarity between conditions in the learning environment and conditions of the transfer of knowledge. Thorndike hypothesized that the transfer of knowledge between initial learning and a new case depends upon the match between elements or specific facts and skills across the two events [20]. The theory stated that transfer from one task to a new highly similar task (near transfer), and from one task to a dissimilar task (far transfer), could be facilitated by teaching skills that have identical elements to cases encountered in the new environment [12]. According to Ericsson et al., transfer of knowledge is most effective when learners gain insight into their learning and their understanding. Therefore, frequent feedback is critical. Students need to monitor their learning and actively evaluate their strategies and their current levels of understanding by using feedback about their progress [7]. This approach is sometimes called "reciprocal teaching". The teaching is reciprocal in the sense that a teacher and students take turns in leading the discussions and students learn in a collaborative context. Transfer of knowledge can be enhanced through the use of "contrasting cases," [8] [9]. Used properly, contrasting cases can help learners notice new

features that previously escaped their attention and learn which features are relevant or irrelevant to a particular concept [2] [17].

Structured Walkthroughs

A structured walk-through is a peer group review that constructively critiques the design of an application during the different stages of an information systems development life cycle.
In this study an experimental static-group comparison design was used to investigate the effect of the conducting walkthroughs on transfer of knowledge and student learning. An inference was made that using structured walkthroughs in a learning environment may result in higher test scores as compared to using traditional lecture-based environment. It was concluded that structured walkthroughs do have positive results in transferring knowledge and broadening the student's tacit knowledge base by exposing them to information created in a new learning environment. Selection of the subjects is the main limitation of this study. I used the static-group design to investigate the effects of using structured walkthroughs on students' performance. This design had restricted the sample size to 41 students in each group. In addition, the assignment of students to treatment and control groups was non-random. I tested for equivalency of the background preparations of the two groups using the GPA of the students for four prerequisite courses. The t-test indicated that there was no difference between the two groups at 5 percent level of significance. Nevertheless, the t-test does not insure that treatment and control groups were equivalent. Future studies should address this concern.

References Available upon request