

# M-learning: Success Factors in Imparting Knowledge Transfer in Academics

Gopal S. Jahagirdar\*

Assistant Professor, Dr D Y Patil Arts, Commerce and Science Pimpri, Pune, India;  
gopalsjahagirdar@gmail.com

## Abstract

Despite increased research interest on knowledge transfer and knowledge management in academics, the field still lacks sound and holistic understanding of the key factors influencing knowledge transfer success and management of knowledge thus gained. This paper presents attempts to provide a synthesis of existing theoretical perspectives and empirical findings related to the factors that facilitate or hamper knowledge transfer and attempts through Mobile Learning (M-Learning) success in information systems in academics. The data collection method is discussed and the key findings are presented. Conclusion is drawn and further research is suggested

**Keywords:** Information Systems (IS), Knowledge Transfer, Knowledge Management, M-learning

## 1. Introduction

We must allow that knowledge can be transmitted. But to allow this is to allow that an individual can know a proposition despite lacking any evidence for it and reaching belief by an unreliable means. So some explanation is required as to how knowledge rather than belief is transmitted. This paper considers two non-individualistic explanations: one in terms of knowledge existing autonomously, the other in terms of it existing as a property of communities. And it attempts to decide what is at issue between these explanations.

We can communicate what we know to others. By relying on testimony we can acquire knowledge and the simplest explanation of how we can do so is that speakers communicate their knowledge. Testimony functions to transmit knowledge from a speaker to an audience.

McDowell writes: 'if a knowledgeable speaker gives intelligible expression to his knowledge, it may become available at second-hand to those who understand what he says'. And Burge argues that 'when one depends on an interlocutor for knowledge one's knowledge depends ... on there being in the chain of sources sufficient justification or entitlement to underwrite knowledge'.

Knowledge transfer in the fields of organizational development and organizational learning is the practical problem of transferring knowledge from one part of the organization to another (or all other) part(s) of the organization. ...

Effective sharing of ideas, knowledge, or experience between units of a company or from a company to its customers. The knowledge can be either tangible or intangible. (Process) Knowledge transfer is the collaborative problem-solving and sharing of experiences, perspectives, and knowledge among caregivers, researchers and policy makers that happens through linkage and exchange.

When it applies to the knowledge transfer in academics or institutions conducting post-graduate program, due to their core concern with learning, educational science and practice are the classic fields of interest regarding transfer research, and probably the prime target for the application of theories. Transfer of learning represents much of the very basis of the educational purpose itself. What is learned inside one classroom about a certain subject should aid in the attainment of related goals in other classroom settings, and beyond that it should be applicable to the student's developmental tasks outside the

\* Author for correspondence

school; the need for transfer becomes more accentuated. This is because the world educators teach in today is different from the world they themselves experienced as students, and differs equally from the one their students will have to cope with in the future.

Mobile learning is the next version of e-learning or CD Tutor or Web Based Tutor. Wherein, rather than carrying a CD Tutor and e-learning tools it is available with almost all college going students. Only thing is limitation of Mobile need to be smart phone or having the capacity of some storage and working on Android with 3.0 or later. Mobile device is easily carried out to any place can be handy too. Most of the post graduate courses or even graduate course is turning on to multi-choice. Essentially, most of the student has access to the Facebook and mobile application is developed in such a way that question bank becomes accessible to all the students.

By nature of their applied interest, educationalists' main concern has been less with the question of how transfer takes place, and much more with under what conditions, or, that it happens at all. The basic conviction that student's learning and achievement levels depend primarily on learning and achievement prerequisites, has constituted a central part in educational learning theories for quite some time<sup>3, 6</sup>. The major focus in educational transfer studies has, therefore, been on what kind of initial learning enables subsequent transfer: *teaching for transfer*. Research on learning and transfer has identified key characteristics with implications for educational practice.

Educational transfer paradigms have been changing quite radically over the last one hundred years. According to the doctrinaire beliefs of the Formal Discipline<sup>1</sup> transfer was initially viewed as a kind of global spread of capabilities accomplished by training basic mental faculties (e.g., logic, attention, memory) in the exercise of suitable subjects, such as Latin or geometry. With the turn of the 20th century, learning, and therefore transfer of learning, was increasingly captured in behavioral and empiricist terms, as in the Connectionist and Associationist theories of Thorndike<sup>10</sup>, Guthrie<sup>7</sup>, Hull<sup>8</sup>, and Skinner (e.g., 1938). Thorndike (1923, 1924a and b) attacked the Formal Discipline empirically and theoretically and introduced the theory of "identical elements", which is probably still today the most influential conception about transfer (Thorndike, 1906; Thorndike & Woodworth, 1901a, b and c). Thorndike's belief that transfer of learning occurs when learning source and learning target share

common stimulus-response elements prompted calls for a hierarchical curricular structure in education. "Lower" and specific skills should be learned before more complex skills, which were presumed to consist largely of configuration of basic skills. This small-to-large learning, also referred to as part-to-whole or vertical transfer, has been popular with theories of learning hierarchies<sup>4</sup>.

## 2. Need and Method for Learning and Transfer: Implications for Educational Practice

A modern view of transfer in the context of educational practice shows little need to distinguish between the general and specific paradigms, recognizing the role of both identical elements and meta cognition. In this view, the work of Bransford, Brown and Cocking<sup>2</sup> identified four key characteristics of learning as applied to transfer. They are:

- The necessity of initial learning;
- The importance of abstract and contextual knowledge;
- The conception of learning as an active and dynamic process; and
- The notion that all learning is transfer.

First, the necessity of initial learning for transfer specifies that mere exposure or memorization is not learning; there must be understanding. Learning as understanding takes time, such that expertise with deep, organized knowledge improves transfer. Teaching that emphasizes how to use knowledge or that improves motivation should enhance transfer.

Second, while knowledge anchored in context is important for initial learning, it is also inflexible without some level of abstraction that goes beyond the context. Practices to improve transfer include having students specify connections across multiple contexts or having them develop general solutions and strategies that would apply beyond a single-context case.

Third, learning should be considered an active and dynamic process, not a static product. Instead of one-shot tests that follow learning tasks, students can improve transfer by engaging in assessments that extend beyond current abilities. Improving transfer in this way requires instructor prompts to assist students – such as dynamic assessments – or student development of metacognitive skills without prompting.

Finally, the fourth characteristic defines all learning as transfer. New learning builds on previous learning, which implies that teachers can facilitate transfer by activating what students know and by making their thinking visible. This includes addressing student misconceptions and recognizing cultural behaviors that students bring to learning situations.

The greatest bulk of theoretical and empirical research published in recent decades has been done with reference to transfer of cognitive skills and knowledge; for example with regard to problem-solving and analogical reasoning<sup>5</sup> (Gick & Holyoak, 1980, 1983; Holland, Holyoak, Nisbett, & Thagard, 1986; Robertson, 2001). The cognitive shift in psychology showed a great impact on the evolution of new and refined concepts, methods, theories, and empirical data in transfer research, and it put the investigation of the phenomenon back on the general research agenda after a clear decline in relevant scientific publications between 1960 and the 1980s (Cormier & Hagman, 1987; Haskell, 2001).

Cognition-oriented theories reinforced a series of key research frameworks to the study of transfer, including production systems, analogical reasoning<sup>5</sup> (Gick & Holyoak, 1980; Holland et al., 1986), mental models, schema, heuristics, and meta-cognition<sup>5</sup> (Brown, 1978; Flavell, 1976; Gott, 1989; Kieras & Bovair, 1984). Specifically, research on transfer has profited from three main drivers within the study of human cognition: these are analogy, the computational metaphor, and the intensified interests with the nature and quality of mental representations.

### 3. Advantages of Mobile Learning Transfer

- Ownership lies with the student, depending upon the capacity and affords or capacity student can bear the cost.
- For paperless office, this model suits as it reduced the cost of printing and there by stationery and wastage.
- Teacher can circulate notes, presentations, questions bank, photos, etc.
- Every teacher can exchange and share their question banks; students also can share the material.
- No need to take photocopy or any documents as it is available on mobile.

- Teacher and students can share their material, notices, and circulars without student present physically in the premises.
- With Wi-Fi members can upgrade the device.

### 4. Disadvantages

- Requires Standardization, which itself is a challenging task.
- Students may defuse the questions or spoils the questions bank.
- All the member, teacher or students, needs have mobile device.
- Roles need to be decided by the authority or administrator which in itself is a challenge.

### 5. Conclusion

A student-learning centered view of transfer embodies these four characteristics. With this conception, teachers can help students transfer learning not just between contexts in academics, but also to common home, work, or community environments.

In this paper it is presented or attempted to provide a synthesis of existing theoretical perspectives and empirical findings related to the factors that facilitate or hamper knowledge transfer success in information systems in academics. Challenges are the contents development and preparation of question bank and answers. More and more faculties are needed to spread the activities that may require initially hard things to maintain. The data collection method is discussed and the key findings are presented. This may lead to challenges transmitting through mobile transmission Conclusion is drawn and further research is suggested.

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