



Developpement motivationnal attitudes of teachers to integrate ITC

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ABSTRACT

This article examines the evolution of motivational attitudes of university teachers vis-à-vis the integration of information technology and communication (ICT). Motivational attitudes of teachers could be enhanced by the skill. The latter is considered a variable motivation.

In this perspective, the technological means that are targeted and used by teachers support the use of active learning. They are at the service of student learning. Thus, the technology is seen as a means to active pedagogies and not as an end in itself. Different motivational variables associated with the integration of ICT are analyzed in this work. Our results show that the use of ICT depends on sense of competence, attractiveness and perceived value of ICT, while the generational difference and gender are not significant. The objective is to strengthen the motivational attitudes of the integration of ICT in teaching and developing technopedagogy.

Indexing terms/Keywords

Integration of Technopedagogical development and motivational attitudes of teachers in University Teaching.

SUBJECT CLASSIFICATION

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INTRODUCTION

Today, Developments in science and technology have improved not only in consumer goods, but also in teaching and learning methods. Although traditional teaching techniques are still in use, application methods and hi-tech education and advanced learning is increasing daily, especially in technical higher education. Recently the integration of ICTU in university teaching and particularly in teacher training has been the topic of much debate. Indeed, the development of ICTU is a living science, in relation to the real world since it contributes to the resolution of their problems.

The introduction of ICTU should lead to a more educational approach centered on the student and realized mainly in the form of projects (Peck, Cuban and Kirkpatrick, 2002).

It was then that perform Karsenti and Dumouchel (2010) call the "fourth level stowage of ICTU" (p. 218), who is to learn ICTU for better learning.

Since then, research has highlighted the potential of technology in education. Many of them have shown that ICTU contribute in many ways to student learning (Karsenti, Raby and Villeneuve, 2008; Tamim, Bernard, Borokhovski, Abrami and Schmid, 2011).

Some researchers have shown that new technologies develop cognitive and learning new skills in learners (Hesse, 2002) strategies. Other authors have suggested that technology can promote a focus on the learner or a constructivist approach by teachers (Leask and Younie, 2001; Zurita and Nussbaum, 2004).

In this context, this research addresses the motivational attitudes of teachers vis-à-vis the integration of ICT. We interview the teachers of the Higher Institute of Technological Studies of Nabeul in different departments. Our search tool is a quantitative questionnaire. The data collected allowed us to draw on empirical findings based on the integration of motivational attitudes of teachers vis-à-vis the integration of ICT.

At first, we present the theoretical framework (integration of ICT, motivational attitudes) as well as our research tool. We then develop our results for motivational attitudes of teacher's vis-à-vis technology. Finally, we discuss the importance of these results, particularly for training in ICT integration.

PROBLEMATIC AND METHODS

Integration of ICT and motivational attitudes of teachers

Today, the integration of ICT is part of the initial training of teachers in most countries and all have developed strategies to encourage the use of TICl in education (Eurydice, 2011). On the ground, in Tunisia and elsewhere, only the younger generations of teachers have been trained in the integration of ICT in their initial training (Heer and Akkari, 2006).

However, the growing power of technology and the improvement of access to technology in the classroom were not accompanied by a parallel growth in the integration of ICTU (Belland, 2009). This discrepancy calls for an explanation, which was especially desired in teachers' attitudes vis-à-vis the ICT.

Some authors emphasize that there is no necessary link between effective teaching and learning practices of ICT integration designs (Liu, 2011). Recent studies have indicated, however, that these designs are important to understand the practical integration of ICT by teachers (Ertmer, Ottenbreit-Leftwich, Sadik, Sendurur and Sendurur, 2012). Research Sahin (2012) also shows that the perception of innovation in teacher training and the value attributed to the use of ICT are key indicators of their integration. Poor integration of ICT could find an explanation in the notion of habitus or "all available (Belland 2009) that illuminates the lack of enthusiasm for the integration of ICT

Research shows as well as previous experience with ICT, but also the ease of teaching with technology, their views about the educational use of ICT or their motivation influence the degree of integration of ICT (Mueller, Wood, Willoughby, Ross and Specht, 2008). Other authors propose to consider the integration of ICT as an innovation that is part of a process to educational components, technological and social psychological (and Depover Strebelle 1997; Rey, Pineiro and Coen, 2011; Schumacher and Coen, 2008). The degree of motivation of teachers for ICT integration then enrolled in this complex environment, both social and psychological, but also techno-pedagogical.

Many research have highlighted the impact of different training on motivational attitudes of teachers vis-à-vis the integration of ICT (Cleary, Akkari and Corti, 2008). However, little research has examined the motivational attitudes of teachers vis-à-vis the integration of ICT. Our approach thus provides new evidence since it measures the motivational attitudes of teachers vis-à-vis the integration of ICT.

Questionnaire on teachers' motivation for the integration of ICT



The tool used for this research is to measure the motivational attitudes of teachers vis-à-vis ICT. It was originally developed in 2006 by Schumacher and Coen (2008) from a questionnaire Karsenti and Larose (2002). This tool measures six motivational attitudes of teachers and ICTs:

- 1) The sense of competence in the technical mastery of ICT
- 2) The feeling of competence in educational assessment of ICT
- 3) The sense of competence in the pedagogical integration of ICT
- 4) The appeal of working with ICT
- 5) The perceived value of student learning
- 6) The orientation itself associated with the integration of ICT.

Several dimensions of our questionnaire are designed to assess the perceived teachers in integrating ICT competence. Effectively the sense of competence is a concept associated with motivation in a social-cognitive approach . It is considered a variable of motivation, especially because it affects the willingness to engage in a task.

- A first dimension of our questionnaire is perceived in the technical mastery of ICT skills (the use of a common software).
- A second dimension relates to feelings of competence in educational assessment of ICT. It reflects the teachers' perception of their own ability to critically evaluate the pedagogical potential of ICT on teaching plans.
- A third dimension of the questionnaire is the feeling of competence in the pedagogical integration of ICT. It reflects the perception of their own ability to integrate educational technologies for student learning
- A fourth dimension of our questionnaire concerns the appeal of working with ICT. The attraction is a dimension of motivation influences the willingness to engage in a task.

We also measure a fifth dimension , which represents the perceived value of ICT for teaching . The concept of perceived value is to measure beliefs about the importance and usefulness of a task and identifies external reasons people get involved .

Finally, our research takes into account one last dimension associated with the motivation of teachers; that is to integrate ICT orientation itself. This concept measures the demonstration dimension of its own capacity as an objective of integration of ICT.

Data collection

The data used for this research were collected from teachers of the Higher Institute of Technological Studies of Nabeul, TUNISIA.

The surveyed population (N = 393) is composed of teachers assistants degrees technologists, master technologists and masters assistants;

These figures show the distribution of teachers by department.

Table 1. Composition de l'échantillon.

Department	genre	N	%
Department Electrical Engineering	Women	8	2%
	Men	39	10%
	Total	47	12%
Mechanical Engineering	Women	46	12%
	Men	10	3%
	Total	56	14%
Civil Engineering	Women	14	4%
	Men	39	10%
	Total	53	13%
Technologies of Informatics	Women	14	4%
	Men	39	10%
	Total	55	14%
Economics and Management	Women	38	10%
	Men	14	4%
	Total	52	13%



PRESENTATION OF RESULTS

We analyze first the evolution of the sense of competence of teachers in the technical mastery of ICT. In a second step, we will develop the evolution of the other five dimensions of motivation, which present an educational component.

Evolution of the sense of skill in the art ICT skills

Age is a significant factor to translate the sense of technical competence in the technical mastery of ICT.

The difference in the regarding sense of competence in the technical mastery of ICTs by gender has found that, men consider themselves more competent than their female colleagues.

Besides the technical aspects associated with ICT skills, our research measures the degree of integration of ICT in education from the motivational attitudes of teachers towards integration.

DISCUSSION AND CONCLUSION

We will now summarize the main points from our results and discuss their implications, particularly regarding future training in the integration of ICT for teachers.

A first observation is needed to read the results: motivational attitudes of teachers improved substantially between 2006 and 2012 in favor of the integration of ICT.

Note in particular the significant increase in the attractiveness of ICT and perceived competence of teachers in both the technical mastery of ICT in the evaluation of educational potential of these new tools in their teaching and classroom integration.

This reflects change of posture of teachers who consider technology as a more relevant resource for teaching. It shows that resistance often observed during the introduction of techno-pedagogical innovations (Bétrancourt, 2007) and due to fears related to change and mastering these tools tends to decrease with time.

In our study, the orientation itself remains stable. This confirms models of motivation which we refer, as this dimension of motivation is a relatively stable trait of the person, very few related context or situation (Seegers and Boekaerts, 1993).

Therefore, we can expect that it does not undergo large fluctuation between two sessions of the same questionnaire to the same population, confirmed in our data element.

Perceived value increases only slightly. The eyes of teachers about the added value represented by the CTBT has not evolved in the same way that their sense of competence and attractiveness of ICT integration.

This reinforces the need to focus more than ever training to integration of ICT to solve practical problems (organization, differentiation, student motivation, ...) and teaching encountered by teachers in their daily practice (Coen, 2007).

Beyond these general trends, nuances emerge. It is thus found an early fracture at several levels. On the one hand, the heterogeneity between teachers in the technical mastery of ICT is growing and we perceive that the gap widens further between the very teachers abreast of technological developments and those who toil in the control of common IT tools.

Moreover, it seems necessary to consider a systemic dimension in political integration of ICT in promoting the sharing of skills within schools and creating new teaching based in particular on the dynamic collaboration.

On the other hand, it also receives a divide in the attitudes of secondary school teachers II. Indeed, at secondary level, the attraction to work with ICT decreased between 2006 and 2012.

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