

ECER 2010 Helsinki

The European Conference on Educational Research

23 - 24 August 2010:

Post-Graduate and New Researchers' Pre-Conference

25 - 27 August 2010: Main Conference

[Submissions](#)

2:27:26 pm CET

Bram Pynoo

[Logout](#)

[Overview](#) > [Your Submissions](#) > [Contribution Details](#)



Contribution Details

Contribution Details

EERA Network: 16. ICT in Education and Training

Alternative EERA Network: 1. Continuing Professional Development: Learning for Individuals, Leaders, and Organisations

Exploring the Link Between Members' Acceptance and Use of a Portal for Education

1140

Pynoo, Bram (1); Tondeur, Jo (2,3); van Braak, Johan (2); Duyck, Philippe (1)

Organisation(s): 1: University Hospital Ghent, Belgium; 2: Ghent University, Belgium; 3: Research Foundation Flanders

Submitted by: Bram Pynoo (University Hospital Ghent)

Presenting Author: Pynoo, Bram (Bram.Pynoo@ugent.be)

This proposal is part of a master or doctoral thesis.

Format of Presentation: Paper

Topics: NW 16: Assessment and evaluation of the impact of ICT in education and training

Keywords: Educational technology, portal for education, technology acceptance, C-TAM-TPB

Proposal Information

In a time characterized by an overload of information that is, through Internet, accessible for everybody, portal websites are useful as they bundle information that should be relevant for their users. Although the administrators are important, particularly for developing and maintaining the website, the real strength of a portal depends on the involvement and contributions of its' members. So the aim of this study is to assess the members' acceptance of a portal for education. The members will be grouped according to their extent of use (number of downloads, uploads and logins) of the portal, so that in the end guidelines can be proposed to promote the acceptance and use of the portal.

Also in the field of education where there is an increased use of technology in the classroom, leading to an increased need to stay up-to-date, not only for teachers, but also for anyone who is involved in the educational process (parents, student, school board members, etc.), portals can prove their value. KlasCement [<http://www.klascement.net>] is a portal for education targeted at the Dutch speaking part of Belgium. It is supported by the Flemish department of Education. Membership of KlasCement is free and unconditional, except that members have to login at least once a year. Through KlasCement, members can retrieve tutors, download and upload material (documents, media files, exercises, ...), follow the latest trends, evaluate posted material, and much more. At the time of writing, KlasCement had close to 57000 members and held over 11000 contributions. But what drives a member to contribute? In other words what drives a member to accept and use a portal?

In the field of research on technology acceptance, researchers try to identify the ultimate set of factors that gives the best prediction of technology acceptance. Hereto, a multitude of models and constructs were developed grounded on general social psychology and sociology theories. For this study, we will draw on the Technology Acceptance Model (TAM; Davis, 1989) and the Theory of Planned Behavior (TPB; Ajzen, 1991). Both these models are extensions of the Theory of Reasoned Action (Fishbein & Ajzen, 1975), and they can be integrated into one model: C-TAM-TPB (Chau & Hu, 2001; Taylor & Todd, 1995a), containing the following scales:

- perceived usefulness (TAM): the degree to which a person believes that using a particular system would enhance his or her job performance (Davis, 1989)
- perceived ease of use (TAM): the degree to which a person believes that using a particular system would be free of effort (Davis, 1989)
- subjective norms (TPB): the person's perception that most people who are important to him think he should or should not perform the behavior in question (Fishbein & Ajzen, 1975)
- perceived behavioral control (TPB): perceptions of internal and external constraints on behavior (Taylor & Todd, 1995b)
- attitude (TAM & TPB): this reflects feelings of favorableness or unfavorableness towards performing a behavior (Taylor & Todd, 1995b). Attitude can be used both as a dependent (TAM) and independent variable (TPB).

Methodology or Methods/ Research Instruments or Sources Used

The questionnaire was taken online, as part of an evaluation of all aspects of the site. 1121 usable responses were collected (about 2.8% of all members), the largest part being teachers (N=929). Only registered members could complete the questionnaire and in order to complete the questionnaire, members had to update their profile. This way additional information was extracted from the database and included into the datafile. This included not only demographic information but also the number of logins, pageviews, downloads and uploads. The scales for this study were translated and adapted to the study context. 7-point Likert-scales were used for scoring. Next to the scales mentioned above we included behavioral intention, self-reported frequency of use and perceived intensity of use as measures for acceptance.

Cluster analysis was used to define groups, while regression analyses were performed to identify the determinants of acceptance.

Conclusions, Expected Outcomes or Findings

The members were clustered according to their extent of use of KlasCement. Three parameters were taken into account: number of logins (L), downloads (D) and uploads (U). This way three groups were discerned (mean count between brackets: L-D-U): 757 light (19.83-15.68-0.14), 274 medium (93.72-103.15-1.62) and 90 heavy users (306.47-385.91-15.68). The duration of the membership is significantly higher the heavier the use of KlasCement, but the correlation between duration and uploads is low but significant ($r=.09$, $p<.01$).

Regression analyses showed that the usefulness of KlasCement is the main predictor of acceptance in every group. Attitude is also important for predicting acceptance, while subjective norms are only important for the light and the heavy users. Ease of use is especially important for the light and medium users in forming their attitude towards KlasCement. Perceived behavioral control is not important in this context. Variance explained in the dependent variable ranged from .13 (frequency of use) to .48 (behavioral intention).

For the administrators, it is good news that involvement tends to increase over time. Nonetheless, administrators could take some actions to speed up the process: e.g. urging members to share material with colleagues or increasing the ease of use of the website.

References

- Ajzen, I. (1991). The Theory of Planned Behavior. [Organizational Behavior and Human Decision Processes]. *Organ Behav Hum Decis Process*, 50, 179-211.
- Chau, P. Y. K., & Hu, P. J. H. (2001). Information technology acceptance by individual professionals: A model comparison approach. *Decision Sciences*, 32(4), 699-719.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *Mis Quarterly*, 13(3), 319-340.
- Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.
- Taylor, S., & Todd, P. A. (1995a). Assessing IT usage: The role of prior experience. *Mis Quarterly*, 19(4), 561-570.
- Taylor, S., & Todd, P. A. (1995b). Understanding Information Technology Usage - A Test of Competing Models. [Information Systems Research]. *Information Systems Research*, 6(2), 144-176.

Intent of Publication

Computers & Education

[Overview](#) > [Your Submissions](#) > [Contribution Details](#)

[Print View](#)  

Imprint · Contact Address: ecer2010@eera.eu
Conference: ECER 2010

Conference Software - **ConfTool Pro 2.6.17**
© 2001 - 2010 by H. Weinreich, Hamburg, Germany