PH Bern Fonds National SUISSE (Grant #188867)

Pädagogische Hochschule

Institut für Forschung, Entwicklung und Evaluation Schwerpunktprogramm Governance im System Schule



Competencies and Beliefs of Teachers regarding the Modular Curriculum "Media and ICT"

Theoretical Background and Research Question

In 2017 the implementation of a new modular curriculum «Media and ICT» (M&I) in Swiss public schools was launched. The implementation of M&I brought new requirements for teachers in terms of learning content and didactics of digital literacy.

Studies show that teachers and their beliefs about reforms as well as their competencies contribute essentially to the implementation processes in schools (Waffner, 2020). Therefore, in this study, teachers are considered as key persons for a successful reform process, respectively implementation of the new module curriculum M&I.

As the M&I reform process has not yet been completed and no data are available on the monitoring of implementation, this study intends to look more closely at how teachers cope with the implementation of the M&I module curriculum and whether they are willing respectively able to implement it. For this purpose, attitudes as well as the existing M&I competencies of teachers will be investigated. This examination may reveal areas where teachers' beliefs and competencies are inconsistent with reform efforts, thereby enabling reformers and curriculum developers to target potentially problematic conflicts.

This study, implemented within a research project financed by the Swiss National Science Foundation investigates the question:



To what extent do teachers' beliefs and COMPETENCIES INFLUENCE THEIR M&I TEACHING?



The theory of planned behaviour by Ajzen (1991) can be applied to a situation expressing teachers' attitudes towards curricular changes (Dostal, et al., 2017).

Based on Ajzen's (1991) theory of planned behaviour, it is expected that teachers who show a high willingness to innovate (H1), who have high selfefficacy expectation (H2) and who teach in a school team with conducive support towards M&I (H3) are more willing to form a behavioural intention (e.g. teachers want to implement the module curriculum M&I). Specifically, teachers' digital competencies are expected to mediate the relationship between teachers' beliefs and their behavior (H4). This intention should then be reflected in concrete behaviour in the classroom (see Figure 1).

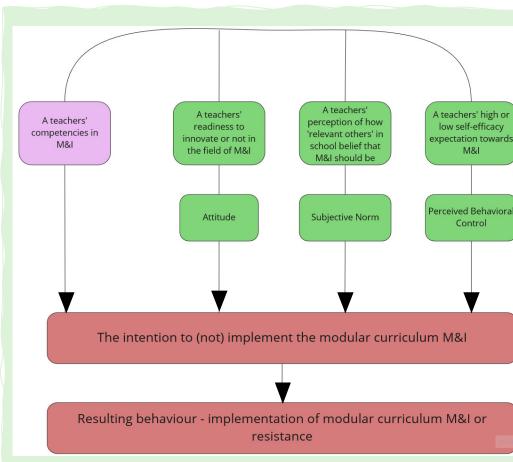


Fig. 1 A model characterizing the relationship between the beliefs, the competencies and behavior of teachers in relation to curricular changes (based on the Theory of Planned Behavior by Ajzen, 1991)

Methodology

After a pretest with 29 teachers to evaluate the reliability and validity of the survey instruments has been conducted, the data collection of the main survey is currently taking place. A sample of about 220 Swiss teachers from kindergarten to 6th grade is expected.



References

Ajzen, I. (1991). The Theory of Planned Behavior. Organizational Behavior and Human Decision Processes, 50, 179–211. Dostal, J., Wang, X., Nuangchalerm, P., Brosch, A., & Steingartner, W. (2017). Researching computing teachers' attitudes towards changes in the curriculum content – An innovative approach or resistance? In Towards better competencies of ICT human resources and regional competitiveness in a global era: Aston Hotel and Convention Center, Jayapura, Papua, Indonesia, 1-3 November 2017 (pp. 1-6). IEEE. https://doi.org/10.1109/IAC.2017.8280531

Waffner, B. (2020). Unterrichtspraktiken, Erfahrungen und Einstellungen von Lehrpersonen zu digitalen Medien in der Schule. In A. Wilmers, C. Anda, C. Keller, & M. Rittberger (Eds.), Digitalisierung in der Bildung: Band 1. Bildung im digitalen Wandel: Die Bedeutung für das pädagogische Personal und für die Aus- und Fortbildung (pp. 57–102). Waxmann. https://doi.ora/10.31244/9783830991991.03



Expected Findings and Significance of the Research

Detailed results are expected at the end of March 2022. As hypothesised before, it is expected that teachers who report high perceived competencies in M&I, who exhibit a high willingness to innovate, who have high self-efficacy beliefs and who perceive a supportive climate in their school (subjective norm), are more willing to implement the curriculum of the M&I module into their classroom.

These findings are highly significant, as they can be used as a starting point for developing tailor-made programmes for inservice training. In other words, the findings could guide and support the professionalization of teachers and their initial and further training. In addition, facilitating or inhibiting beliefs regarding the implementation of the new curriculum can be identified. These can be systematically used for the current reform to support the implementation process of M&I by developing instruments of governance that can finally serve a successful implementation of the module curriculum M&I.

The present study also contributes to the field of curriculum implementation and extends these findings to a highly relevant context: the introduction of an ICT and media-supported curriculum in Switzerland. Similar curriculum implementations can be observed worldwide. It shows that Aizen's TPB can be a fruitful theoretical analytical perspective for curriculum change processes by demonstrating how teachers' competencies and beliefs influence implementation.



Contact Marina Grgic marina.grgic@phbern.ch

