

Teachers' perceptions of educational research, research literacy and individual innovativeness as determinants of their attitudes towards school change

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Background

Over the last decade, scientific discourse on educational change and school improvement has been dominated by the issue of incorporating research findings into practice and policy and witnessed numerous efforts around the world attempting to establish links in the research-practice-policy nexus.

This period is considered as a new wave of reform in education change, characterized by the realm of evidence based practice. The movement of evidence based practice (EBP) was associated to public accountability demands and school modernization and proved highly controversial. Critics concern the fact that advocates of EBP tend to value only 'hard', quantitative research as evidence, thus promoting a technocratic view in educational change, conforming to certain socio-economical and political models. This view, emphasizing objectivity and measures, discards valuable research evidence coming from qualitative research and other types of teachers' research taking into account local contexts. Current ways of implementing EBP in education may pose significant limitations to the use of research by practitioners, because teachers feel it as a restriction to their autonomy, self-worth and creativity rather than support to promoting change and innovation for school improvement.

Nevertheless, the fact that practice should be informed by the best available research evidence is unequivocal. In order to maximize opportunities for change and development in schools, ways of efficiently implementing the existing research findings are needed and also establishing sound evidence by conducting research about particular phenomena. A school committed to evidence based improvement needs to promote both (Davies, 1999). However, it is well established that little research actually makes its way into teachers' everyday practices. Teachers' perceived lack of relevance as well as physical and conceptual accessibility of educational research evidence hinder them from changing beliefs, attitudes and practices and rather use tacit knowledge gained from experience.

The gap between researchers and practitioners in education was attributed to the different agendas of academics and teachers, the lack of research capacity of teachers (William & Coles, 2007) and persuasiveness of research. Teachers tend to value research if it answered the type of 'what works' questions and conformed to their beliefs and values (Pajares, 1992) while they are not equipped to judge the presence of sufficient evidence to support conclusions.

In recent years, the numerous developments, going beyond research dissemination to fostering collaboration amongst education stakeholders on research issues, gave rise to a new field, termed knowledge mobilization, intending to build capacity to apply research findings (Cooper, Levin & Campbell, 2009).

Research Questions

Educational improvement depends, to a large extent, on the willingness of teachers to foster or undertake school changes based on research evidence. Teachers' literacy on and engagement with research has the potential to increase their confidence in using research tools (Coleman, 2007; Rust & Meyers, 2006) and help them build habits of inquiry which encourage them to be innovative (Zeichner, 2003). However, empirical studies examining the association of teachers' resistance to change with their capacity and attitudes towards using research are lacking.

In view of the fact that research was only recently acknowledged by some educational authorities as part of the teaching profession and the two different types of knowledge- generating interests of researchers and practitioners (the two-culture thesis), the question raises as to whether teachers' perceptions of educational research might be associated with their capacity to respond to the need for school change and, if they did, whether this is accomplished by enhancing individual innovativeness or the latter is an additional predictor. Furthermore, the role of teachers' knowledge about research methodology and experience with research is examined.

Methods

A survey by self-administered questionnaires completed by a convenience sample of 307 teachers (196 women, 111 men), aged 23-60 years was used. Teachers were working in schools of primary (54%) and secondary (46%) education in urban and rural areas of Greece. One in five teachers held postgraduate degrees.

Measures included: a) an 'Attitudes towards School Change' scale comprising 13 items, on a 6-point Likert scale, concerning the cognitive, emotional and behavioral aspects of attitudes towards school changes ($\alpha=.919$), b) a 16-item questionnaire on a 5-point Likert scale, concerning teachers' perceptions of educational research ($\alpha=.871$) and c) the 20-item individual innovativeness scale comprising 20 items, on a 5-point Likert scale (Hurt, Joseph & Cook, 1977) ($\alpha=.873$). Additional information included training in research methods and statistics, experience in conducting educational research as well as demographic data. Training in research methods and statistics was measured by an index summing up formal university courses and professional development courses appropriately weighted. A similar index was used to measure research experiences.

Frame

Following exploratory factor analysis, results suggested that conceptualization of educational research by teachers is two-dimensional. The first dimension referred to the extent that engagement with research should be an integral part of teachers' professional identity. The second dimension referred to the general knowledge-driven conceptualization rather than the narrow instrumental (the 'what works') perception of research. Both dimensions were positively associated with training in research methods and experience of conducting research. The first dimension rather than the second was a significant predictor of teachers' attitudes towards school change alongside with individual innovativeness.

Research findings

Since tools for empirical investigations into the field are scarce, the present study provided for the distinction and appropriate measurement of important variables. Findings support the importance of incorporating research into the teaching profession in enhancing teachers' willingness to school change. Implications regarding the need of reform in the area of initial training and professional development of teachers are discussed.

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