Creating a demand for educational research: 
research learning in continuing teacher education

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Introduction
One aspect of belonging to a profession is that members of the profession have and use opportunities to renew their knowledge and skills at regular intervals. For the teaching profession there are several sources of knowledge, such as knowledge gained within the workplace, knowledge promoted in the activities of professional associations such as publications and conferences and knowledge created by educational researchers, often in cooperation with teachers.

Educational research has been given a high priority by the national government in Iceland. At the end of last year, the Science and Technology Policy Council (2007) agreed on eight research priorities, the first of which was to: Strengthen research on education and teaching in order to develop the educational system so that it can better meet ever-increasing demands for knowledge, activity, creativity, initiative and flexibility.

The purpose of this paper is to report on some results from an evaluation\(^1\) of educational research in Iceland carried out in 2003-2005 (Icelandic Centre, 2005). There was a mismatch between what was being produced and for whom, and what was being used and by whom. These results were unsettling and several initiatives have been undertaken in order to discuss and address these results. Here I will look at the role that continuing and/or graduate studies in education might have in addressing the mismatch, and will suggest that aspects of professionalism provide educational research with criteria of what might be marketable research.

The paper begins with a short review of the characteristics of a profession, introduces some results from a recent evaluation of educational research and finishes with examples of research learning in continuing education.

Elements of professionalism
Professions can be characterised by a number of conditions, some of which are listed here:

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\(^1\) The author was the chairman of the working group which supervised the evaluation. Ingibjörg Kaldalóns was the research officer.
Members of a profession provide a crucial social service to society. Practitioners are service-oriented and emphasize services more than financial rewards.

Members of the profession have undergone a long period of specialized training. There exists an organized body of intellectual theory constantly expanded through continued study and research.

Individual members and the professional group enjoy a considerable degree of autonomy and decision-making authority. There is control on the numbers who may enter the professions; it is self-governing and responsible for policing its ranks.

There are shared personal values in the group sometimes expressed by a code of ethics which provide direction for conduct.

Members must accept personal responsibility for their actions and decisions. Members mutually guarantee to the society each other’s competence and trustworthiness.

Members of the profession have authority over their clients and the nature of the service rendered makes the clients incapable of appraising it.

Specialist knowledge within a profession must be attained and renewed. It must be understood by members of the profession, evaluated and placed in context, and used ethically. The notion of taking responsibility for actions and decisions calls for ‘useful’ knowledge that can make a contribution to practice. Such knowledge is used in the provision of services. Mortimore (2000) pointed out that educational research is always directed at improvement of an educational situation, but a prerequisite would be that the knowledge being made available for teachers and/or by teachers can be used for the purpose of improvement.

**Educational research and development in Iceland**

From 2003-2005 an evaluation of ERD in Iceland was carried out with the support of the Icelandic Centre for Research and the Ministry of Education, Science and Culture (2005). The evaluation focused on four areas: academic research in universities, commissioned research often carried out in institutes, by or on behalf of the ministry, development projects in schools, and training and continuing education for adults.

Several issues emerged from the findings of the evaluation (Icelandic Centre, 2005). One was the capacity to use and carry out research, another concerned the dissemination and impact of research findings. These issues did not come as a surprise as they have appeared in several other evaluations of educational research, not least in those carried out in other OECD countries under the auspices of the OECD (Macdonald, 2005; OECD, 2007).

An important conclusion of the evaluation was that policy-makers and practitioners did not often look for research or base their decisions on the results of educational research and development. This situation could not be ascribed to one single factor; instead it seemed as if the problem needed to be addressed on several fronts, including the way in which research topics were selected, how research was carried out and the manner in which results were disseminated.
The results of the evaluation showed that most research producers in Iceland work in teacher education. Training for compulsory school teachers was moved to university level in 1971 and pre-school and sport training in 1998. Those working in teacher education with permanent posts (between 180 and 200 people) all have 40-43% work time for research as part of salary. Staff working in the field of educational research at the three main universities classified their own publications according to categories provided by the evaluators (Table 1, 2 and 3). The pressure on university faculty to carry out basic and applied research is marked, as well as the relatively low level of publications related to development or advisory work (Table 1).

**Table 1 What sort of research and development is reflected in the publications by university researchers?**

<table>
<thead>
<tr>
<th></th>
<th>IUE %</th>
<th>UI %</th>
<th>UA %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic research</td>
<td>28</td>
<td>46</td>
<td>51</td>
</tr>
<tr>
<td>Applied research</td>
<td>32</td>
<td>26</td>
<td>33</td>
</tr>
<tr>
<td>Evaluation</td>
<td>20</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Development projects</td>
<td>14</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>Advisory work</td>
<td>7</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Review of research</td>
<td>15</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>116%</strong></td>
<td><strong>110%</strong></td>
<td><strong>133%</strong></td>
</tr>
</tbody>
</table>

*It was possible to categorise some research more than one way.*

Code: IUE Iceland University of Education, UI University of Iceland and UA University of Akureyri

About half of the results are communicated orally and only a small percentage in peer-reviewed journals (Table 2).

**Table 2 How do university researchers communicate their results?**

<table>
<thead>
<tr>
<th>Reporting of activity</th>
<th>IUE %</th>
<th>UI %</th>
<th>UA %</th>
<th>All of UI* %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998-2002 Peer-reviewed (e.g. journals)</td>
<td>5,9</td>
<td>15,2</td>
<td>16,2</td>
<td>33,0</td>
</tr>
<tr>
<td>Not peer-reviewed (e.g. reports)</td>
<td>34,9</td>
<td>26,9</td>
<td>21,5</td>
<td>23,3</td>
</tr>
<tr>
<td>Talks and posters</td>
<td>53,1</td>
<td>50,7</td>
<td>54,5</td>
<td>20,5</td>
</tr>
<tr>
<td>Other – books/chapters/theses</td>
<td>6,0</td>
<td>7,1</td>
<td>8,8</td>
<td>23,2</td>
</tr>
</tbody>
</table>

* Inga Dóra Sigfúsdóttir et al. (2005)
The National Testing Institute and its predecessors has since the early 1980s carried out a wide range of studies, is responsible for Iceland’s participation in international studies and carries out standardized assessments at the request of the ministry. There are also several other institutes who take on commissioned research and this group is quite clear that it is writing for policy-makers (Table 3). What is surprising when the trends in Tables 1, 2 and 3 are considered is that most producers of research in universities claim to be carrying out basic or applied research, yet they do not publish much in peer-reviewed journals. The same university producers of research feel that they are writing for practitioners (61% of publications), the scientific community (58% of publications) and policy-makers (44% of publications) (Table 3).

<table>
<thead>
<tr>
<th>Producers</th>
<th>Academic research</th>
<th>Master’s research</th>
<th>Institute research</th>
<th>Private sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific community</td>
<td>58%</td>
<td>100%</td>
<td>6%</td>
<td>20%</td>
</tr>
<tr>
<td>Policy-makers</td>
<td>44%</td>
<td>25%</td>
<td>95%</td>
<td>65%</td>
</tr>
<tr>
<td>Practitioners</td>
<td>61%</td>
<td>56%</td>
<td>31%</td>
<td>68%</td>
</tr>
<tr>
<td>General public</td>
<td>7%</td>
<td>10%</td>
<td>9%</td>
<td></td>
</tr>
</tbody>
</table>

* More than one target possible

A third source of knowledge comes from development projects funded by national government and local authorities since the late 1980s. The sources of ideas for these projects were often to be found in their work, in graduate education courses, textbooks and study trips to schools in other countries. Some schools found ways to adapt their ongoing work to themes advertised annually by the Ministry. There were few direct connections between school projects and researchers in Iceland and only some project leaders regularly read Icelandic research. Above all though, teachers who initiated and led development projects seemed to be driven by a willingness to change and improve what they were doing.

**Doing research, using research**

The analysis of publications according to type of research, publication venue and intended audience (Tables 1, 2 and 3) indicates that educational researchers in Iceland had adopted
something of a shot-gun approach in the period 1998-2002; some pellets might hit their targets, especially if the targets attended a conference, but it was not at all certain that publication routes and writing styles were the best way to reach some of these targets i.e. policy-makers and practitioners in schools.

In the rest of this talk I will explore only one of many possibilities of making research knowledge more attractive to teachers. The findings of the evaluation indicated that we need to create a market for educational research and development (ERD), we need to increase the demand for ERD. To do this we need to better understand the marketing chain: what does ERD produce and what could it produce, who are the producers and who are the users, at what point does one become a user, what are the needs of users and are they being met? These are complex questions only two of which will be addressed here, albeit briefly – at what point does one become a user of research and what are the needs of users?

My argument is that a prime opportunity for creating a market is in the provision of continuing and/or graduate education undertaken by practising teachers, who have experience in the field, and middle managers who need to understand the systems within which they work and who are looking for user-friendly information and solutions. A popular concept these days is “user-driven innovation”. Instead of trying to disseminate knowledge through the results of academic research on topics and using methods which are only familiar to academics, it might be useful to look at research from the point of view of the practitioner and his or her needs. What tools and what information might support the driving ambition of teachers to act professionally, in the classroom and as middle managers?

In recent years being able to use research knowledge is an area of emphasis in many teacher education programmes, and Iceland is no exception. In addition, courses of study for new and emerging researchers are offered in graduate programs. In the revision of the curriculum at the Iceland University of Education it was agreed that all courses should be able to show connections to research, but the manner in which this was to be done was left open. Two other key approaches were ensuring connections with the field of practice and creating opportunities for creativity and presentation.

It is not however an easy task to work actively with research and the creation of knowledge in teacher education. Many educational researchers and most teacher educators began their careers as school teachers. Labaree (2003) has written about the difficulties of making the transition from teacher to researcher, from one worldview to another. He frames the preparation of researchers in terms of institutional settings and knowledge space. He suggests that the low status of teacher education institutions and the special nature of the knowledge which researchers are asked to produce play a part in making the transition difficult.

Two examples
I now wish to suggest ways in which continuing teacher education could be a platform for developing the market for educational research. I will discuss two cases in which the process of enhancing skills and creating knowledge could also increase an appreciation of what ERD might have to offer, in turn increasing the demand for ERD.

**Example 1 – Knowledge of one’s own practice viewed in context**

- Individual members and the professional group enjoy a considerable degree of autonomy and decision-making authority.
- Members must accept personal responsibility for their actions and decisions. Members mutually guarantee to the society each other’s competence and trustworthiness.

My first example is taken from a research methodology course for practising physical education teachers and coaches who were completing a two year part-time course of study in order to obtain a bachelor’s degree. The course was offered as part of a flexible distance learning programme with support from a learning management system (LMS) administered by the central technology department. All assignments were submitted electronically, including the final examination. Two on-site sessions were held during this course and more often during the programme.

Two data collecting assignments were carried out during the methodology course, one of which would be the basis of an examination question. One assignment was to provide students with information and ideas about how students become interested in a particular sport. Students were to take a so-called ‘e-interview’ with another member of the class on their favourite sport and to probe for reasons why it was their favourite. Students attributed a range of factors in their backgrounds for what lay behind their favourites. All the transcripts were combined in one document and returned to the class for analysis and discussion.

The other assignment was put into the context of interactions and effectiveness in the workplace. Students were required to write a detailed description of the first ten minutes of a typical workday. Again all descriptions were put into one file and discussed on-line. This set of data became the base of one of the examination questions. The discussion which took place on-line was lively with differing views on when and how physical education teachers prepared for the school day, their status within the school, the management of the first moments with children and not least, the role of the building manager. This assignment provided mature physical education teachers with an opportunity to “visit” other schools and teachers and to review their own practice.

**Example 2 – Using theory to create knowledge about practice**

- There are shared personal values in the group sometimes expressed by a code of ethics which provide direction for conduct.
- Members must accept personal responsibility for their actions and decisions. Members mutually guarantee to the society each other’s competence and trustworthiness.
The second example is derived from a summer course on school support services (provided by professionals to schools) and the role of advisers. Those attending the course were in leadership positions within their schools, mostly at the middle management level. Some but not all had a background in special needs education. In their daily work of providing leadership and giving advice to teachers, students and parents, school leaders often look for new ideas for understanding situations.

Early in the course I asked this group of experienced teachers to submit to the shared web-space short descriptions of a difficult situation which they had had to deal with the previous winter. I wanted a common contextualized knowledge base for discussions during the course. I also wanted to introduce the class to some aspects of cultural historical activity theory (CHAT) (Engeström, 2001) with which a colleague and I had been working for some time. A project in England using CHAT on “joined-up services” (Warrington et al., 2004) had also aroused my interest, in which those providing support services meet and try to create joined-up procedure or new objects of activity to meet the needs of the child. As the descriptions of difficult situations began to come in, I realised that it could indeed be a useful exercise to analyse the cases through the lens of basic activity theory for redistribution to others in the class. For most of the students in the group this proved an enlightening exercise as they reached new understandings of the problems with which they had been working and new approaches to understanding new problems. The combination of first describing and then analysing their own situations, and sharing this with others, proved to be effective, not only technically but also emotionally.

**Conclusion**

In this paper I have shown that there was a mismatch in 1998-2002 between what was being produced by researchers and what teachers were using or doing in their development work. I have suggested that there is a need to create a demand for research and I suggest that one way of ‘creating’ this demand might be through free samples of research and knowledge creation, through working with practising teachers and their own knowledge and experiences in the workplace.

There are three themes which are common to both educational research and teacher professionalism – creating knowledge, understanding knowledge and taking responsibility for using it (Figure 1). I argue, and will continue to pursue the argument, that both teachers undertaking professional development and educational researchers can benefit from the dialectic of empirical and theoretical knowledge, from understanding their own work and the context within which one works and finally, by taking responsibility for using knowledge.

**Figure 1** Relationship between professional development and research
### Continuing professional development

<table>
<thead>
<tr>
<th>Empirical</th>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>One’s own work</td>
<td>Understanding</td>
</tr>
<tr>
<td>Evaluation of self</td>
<td>Responsibility</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theoretical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context of work</td>
</tr>
<tr>
<td>Evaluation of situation</td>
</tr>
</tbody>
</table>

**Educational research and development**
Acknowledgements
Ingibjörg Kaldalóns was the research officer for the evaluation of educational research and development in Iceland and worked closely with the author from 2003-2005.

References


