



*Improving education
through research*

RESEARCHING
EDUCATION
BULLETIN
ISSUE 5

September 2013



Editorial

Welcome to the fifth issue of *SERA's Researching Education Bulletin*. Once again we are lucky to have a wide range of rich papers from diverse groups involved in education. Where there is a longer report available, authors have kindly provided a web address so that you can explore the work more fully.

We start this issue with a report on a quantitative project exploring existing and possible collaborations between Science and Religious Education teachers in Scotland carried out by a team at Glasgow University. This paper has particular resonance at this time as it picks up on the possible ways in which interdisciplinary work is encouraged within the *Curriculum For Excellence*. This is then followed by a contrasting individual reflective piece that is concerned with the importance of new ways of thinking about teacher professional learning highlighted during a professional development visit to Australia.

Our next paper investigates exploratory talk in a P3/4 classroom and this is followed by movement into interdisciplinarity but within a higher education context this time. Another paper from Glasgow University brings us insights into innovative approaches to teacher education experiences through a clinical approach. Next, a particularly timely paper considers the development and implementation of policy in relation to the Donaldson Report. A final paper considers the importance of ICT in Early Childhood Education.

I am sure that this rich range of papers will stimulate discussion and debate. On behalf of the Editorial team I hope that you will enjoy reading issue 5 of REB.

Lorna Hamilton
University of Edinburgh, September 2013.

Table of Contents

Issue 5 September 2013

Science and Religious Education teachers in Scottish Secondary schools: aspirations for greater collaboration Stuart Hall, Stephen McKinney* and Kevin Lowden	P4
Communities of Practice: An Account of a Professional Development Visit to the Australian Capital Territory Mike Brown	P8
Exploratory talk in the primary classroom Gillian Hepburn	P14
Education and architecture – interdisciplinary collaboration in higher education. Susan Buckman	P21
Clinical approaches to school experience during initial teacher education: the student experience- Research Report Delia Wilson, Maggie Jago and Dely Elliot.	P25
Tracing the making and implementation of education policy: the case of the Donaldson Report Anna Beck	P29
Integrating Information and Communication Technologies (ICT) Into Early Childhood Education (ECE): A brief outline on the case of greater Glasgow, Scotland Nada Hammed	P33

Science and Religious Education teachers in Scottish Secondary schools: aspirations for greater collaboration

Stuart Hall, Stephen McKinney* and Kevin Lowden

Outline of research

One of the key aims of CfE is an increase in interdisciplinary learning and this is reflected in the section on Religious and Moral Education in *Building the Curriculum 1* (2006).

There are important connections between themes in Religious and Moral education and, for example, in history, *science* and the arts. These connections can reinforce and enrich learning (our italics).

This report is focused on quantitative research funded by the Esmée Fairbairn Foundation and undertaken by researchers at the University of Glasgow (2011-2013). The research examined (1) the current practice in collaboration and (2) potential for collaboration between Science and Religious Education teachers in a large sample of Scottish secondary schools in eight local authorities (124 schools). The findings indicate that there is evidence of limited collaboration, but also a genuine and widespread aspiration for greater collaboration among many teachers. The findings also indicate that there is a dismissive attitude towards collaboration between Science and Religious Education teachers in a limited number of cases.

Summary of research

One of the main aims of the research was to address the following question:

- Can Science and Religious Education teachers work together on themes in a way, which will enhance the pupils' understanding of science/religion issues?

Eighty-nine questionnaires were returned, a return rate of 40% of the sample. Most of those who responded were experienced teachers: 41% had taught for 16 years of more and

almost half were promoted (20% faculty head and 26% principal teachers). The majority of respondents were female (63%) and almost all worked full time (93%).

We grouped the findings under the following sub-headings. (1) *Current practice* and (2) *Potential for collaboration*.

(1) *Current practice*

Perhaps unsurprisingly, both Science and Religious Education teachers were more likely to have collaborated (shared ideas or co-taught) with teachers in their own subject area and a very low percentage had collaborated with teachers from the other subject area. Both Science and Religious Education teachers felt confident (96%) or about teaching, but when they were asked about teaching 'science facts' and 'ethical and moral issues' significant differences emerged. Science teachers (82%) were very confident in teaching science facts compared to Religious Education teachers (15%) and Religious Education teachers (78%) were very confident in teaching ethical and moral issues compared to Science teachers (18%).

(2) *Potential for collaboration*

The vast majority of the teachers in the sample (94% of Religious Education teachers and 82% of Science teachers) believed that closer collaboration between the two subjects would be beneficial for their teaching (beneficial effect for the teacher, teaching and the implementation of the curriculum) and for the pupil experience (beneficial effect for pupils, pupil learning and pupil skills and attitudes). For example, 71% of Science teachers and 93% of Religious Education teachers believed it would enhance the coherence of the curriculum and 86% of Science teachers and 98% of Religious Education teachers believed

it would contribute to the implementation of the new curriculum. Noticeably, the greatest level of agreement between the two sets of teachers was their belief that greater collaboration would benefit the pupils (more informed and more open and tolerant attitudes).

The potential collaboration is dependent upon a number of key factors:

Commitment of leadership and commitment of staff. The enthusiasm and support of the school leadership was perceived to be essential for effective collaboration, as is the motivation and engagement of subject teachers.

Greater understanding between the two curricular areas. While a few Science teachers and a few Religious Education teachers expressed anxieties about negative attitudes in the other subject area, the vast majority of teachers would welcome the increased interdisciplinary understanding that would result from greater collaboration.

Joint Planning and Operation. Greater collaboration would necessitate discussion and agreement on issues such as points of contact, joint topics, distribution of tasks and target setting. Some teachers suggested this collaboration should be formally consolidated by including it in development targets.

Time and Timetabling Implications. Teachers agreed that there would need to be time conserved for joint meetings for planning, managing and monitoring the collaborative work and also evaluating the results. Adequate time would need to be allotted to allow pupils to complete joint or shared tasks. There are implications for the timetable, as any collaborative tasks/work would need to be taught within a specified time frame.

Resource and Workload implications. Designated funding would be required – e.g. for teaching cover costs to create space for Science and Religious Education teachers to meet. The collaborative work would only be effective if the resources and support materials were high quality. There was considerable anxiety that the collaborative work would create pressure on teacher workloads.

Full report published by SSERC and available from authors:

Hall, S., Lowden, K. and McKinney, S.J. (2013) *Searching for Meaning. Science and Religious Education teachers working together*. Final Report. SSERC.

Author information:

Stuart Hall
School of Education
University of Glasgow

*** Corresponding author:**

Dr. Stephen McKinney
School of Education
University of Glasgow
Stephen.McKinney@glasgow.ac.uk

Kevin Lowden
School of Education
University of Glasgow

Scottish Educational Review

<http://www.scotedreview.org.uk/>

Aims and Scope *Scottish Educational Review* (SER) publishes academic articles and research notes relating to the field of educational policy and practice. The journal is written for academics and researchers in the field of education, teachers and managers in schools and local authorities and those concerned with the development and implementation of education policy. While some of the focus is Scottish, we aim to publish work that is of wider interest to the readership. We also publish work relating to education out with Scotland that may be of interest to a Scottish audience.

Availability of papers SER is available in paper form by subscription. The website contains an archive of back issues (papers as downloadable pdfs). The most recent edition is available as **abstracts only**, but all older articles are available in full back to 1997.

Communities of Practice: An Account of a Professional Development Visit to the Australian Capital Territory

Mike Brown

mbrown272@ea.dumgal.sch.uk

Recent thinking and policy initiatives regarding teachers' professional learning suggest an imminent paradigm shift in the way teachers are expected to develop throughout their careers. Whereas until recently professional development has been seen in terms of a series of disconnected events, teachers of the future will instead be expected to adopt a wholly different "way of being a teacher" (The General Teaching Council for Scotland) than before. Throughout their careers they will develop skills in critical thinking and reflection, engaging in research and enquiry in order to make an increased contribution to pedagogy, to school development and to policy formation.

Not only will Scotland's teachers be required to have an enquiring disposition, there is also much in the current set of initiatives to encourage teachers to "take responsibility for their own development" and to exercise "increasing professional autonomy" (Education Scotland). Such qualities were embedded in this writer through completing the Chartered Teacher programme. Snoek (2009) takes matters further, urging teachers to bring *entrepreneurship* to their professional development.

Through family links, I have developed contacts with teachers and researchers in Canberra in the Australian Capital Territory (ACT). As a result of these, I was able to recently undertake a professional development visit to Canberra. The cluster of schools in which I work as an Additional Support for Learning Teacher commissioned me to conduct a comparative study of practice between Additional Support for Learning services provided by my authority and Disability Education services provided by the Australian Capital Territory.

This professional development visit was commensurate with current responsibilities of Chartered Teachers (The Scottish Government, 2009; Scottish Negotiating Committee for Teachers, 2012). There is qualitative evidence (Trummel, 2012, for example) of the benefits of teachers in different countries engaging in critical dialogue, where communities of practice operate in an “increasingly interconnected world” (Dean et al, 2012).

To facilitate my visit, I held a preliminary meeting with Ms H, Manager, Student Engagement (Disability Education) during a visit to Canberra in the October 2012 school holidays; Ms H kindly agreed to set up a programme of meetings and site visits with her staff in the following December. The visit was formalised as part of my Professional Review and Development process and leave of absence was agreed with my authority for the final three weeks of the October to December term.

During my visit I engaged in several site visits, including:

- C Primary School Early Childhood Intervention Unit.
- E Primary School - Learning Support Centre; Learning Support Unit and Learning Support Unit (Autism Specific).
- M Primary School Early Childhood Intervention Playgroup.

I met and discussed practices and common challenges with:

- Ms M; National Partnership Project Leader, Online Learning Project.
- Ms S, Inclusive Technology Consultant.

I observed a video recording of a discussion between Ms D from the Disability Education service and teachers from F Primary School, which was to be used in the evaluation of *Excellence in Disability Education in ACT Public Schools: Strategic Plan 2010-2013*.

I was also invited to review and comment upon the service's Parental Information Guide, which was then under development.

Sadly, due to a close family bereavement, I had to return to the United Kingdom at very short notice and was unable to complete the visit as planned. However, in the brief time I was in Canberra I observed many excellent practices and have identified a number of development opportunities for my cluster and the Additional Support for Learning team in which I work.

These include:

- Review provision for pre-school pupils with language and communication difficulties. In ACT, Early Intervention Units and Playgroups identify and address difficulties in children as young as eighteen months. Targeted intervention, including working alongside parents / carers, is aimed at reducing the likelihood of support being required once the pupil reaches primary school.
- Explore the possibility of using online training to build capacity among mainstream teachers. ACT teachers have had access to courses designed by specialist providers in speech and language difficulties; dyslexia, autism spectrum disorders; behaviour management; motor coordination; hearing and visual impairments.
- Develop expertise in ICT provision for pupils with Additional Support Needs. For example, cluster ASL teams could have a named ICT specialist similar to ACT's Inclusive Technology Consultant. The specialist's roles could include liaison with the CALL Centre at Edinburgh University. The use of rubrics and matrices – widespread in ACT – to assess pupils' ICT needs could also be developed.

- Develop alternative ways of providing input to, for example, School Improvement Plans and Individual Education Plans. The use of video evidence in plans and policy documents is becoming increasingly common in ACT.
- Develop a generic Parental Information Guide. At present, my authority has leaflets and brochures specific to conditions such as autism and dyslexia. A guide could be compiled and made available to parents at the point where concerns about the child's development and / or progress are initially raised. This would provide a guide for parents and carers as to possible future assessments and interventions.

The visit also allowed me to critically reflect upon practice in my authority and to identify areas of strength. These include:

- Provision for pupils with literacy and dyslexic-type difficulties. This is a core area of practice for our ASL teams, unlike in ACT where provision for this group of pupils is currently under scrutiny and review.
- Liaison with specialist services, such as Educational Psychologists and Speech and Language Therapists. Due to funding issues, schools in ACT do not have straightforward access to such services.
- In my authority, as in Scotland as a whole, our practice from primary school onwards is more inclusive. There is a *presumption* of mainstream education whereas in ACT pupils with learning difficulties or communication needs are likely to be in units which are attached to mainstream schools, but which may be outwith the local community to which the pupil and his or her family belong.

Though curtailed, this was still a very informative and worthwhile visit, which I hope will

be of benefit to my cluster, my ASL team and I hope will ultimately improve outcomes for pupils. Professionally enriching, this visit embodied the shift away from former models of isolated professional development events to a more praxis-oriented disposition, where teachers are encouraged to instigate their own professional development in a prevailing culture of trust (Hardy et al, 2010; Snoek, 2009).

For more information about the Australian Capital Territory's Disability Education services, please visit:

http://www.det.act.gov.au/school_education/disability_education

References

Dean, M., Tait, A. and Gee, K. (2012) Evaluating Professional Development of Educators in an International Context; in *The International Journal of Learning*, [Volume 18](#), [Issue 9](#), pp.145-163.

Education Scotland: *Career-long Professional Learning*. Retrieved from:

<http://www.educationscotland.gov.uk/resources/c/clpl/clpl.asp?strReferringChannel=resources&strReferringPageID=tcm:4-732929-64>

General Teaching Council for Scotland, The: *What is Practitioner Enquiry?* Retrieved from

<http://www.gtcs.org.uk/professional-development/practitioner-enquiry/what-is-practitioner-enquiry.aspx#enquiring>

Hardy, I., Rönnerman, K., Moksnes Furu, E., Salod, P. and Forsmand, L. (2010)

Professional development policy and politics across international contexts: from mutuality to measurability? In *Pedagogy, Culture & Society* Vol. 18, No. 1, March 2010, pp 81-92.

Scottish Government, The (2009) *Standard for Chartered Teacher*. Edinburgh, The Scottish Government

Scottish Negotiating Committee for Teachers (2012) *The Role and Enhanced Contribution of Chartered Teachers and Future Pay Arrangements*.

Retrieved from:

<http://snct.org.uk/library/1496/SNCT-12>

35%20The%20Role%20andEnhanced%20Contribution%20of%20Chartered%20Teachers%20and%20Future%20Pay%20Arrangements.pdf

Snoek, M. (2009) *Who is responsible for the professional development of teachers? Teachers' ownership of professionalism*. [PowerPoint slides]. Presented at an International Professional Development Association Conference, Birmingham.

Trummel, B. (2012) International Partnerships for Professional Development; in *Delta Kappa Gamma Bulletin*, Fall 2012, Vol. 79 Issue 1, p21-26.



*Improving education
through research*

If you are interested in joining SERA or in attending our annual conference, please go to www.sera.ac.uk

Exploratory Talk in the Primary Classroom

Gillian Hepburn email : gillianhepburn1@tiscali.co.uk



Introduction

As part of the final component of my Masters degree for Chartered Teacher I carried out a small-scale study in a primary school. The study involved the participation of twenty-four Primary 3/4 children. There was a range of academic ability within the class. One child had an Individual Support Plan.

Talking is an essential skill for life long learning. In Scotland, talking should provide the key medium for supporting children in their development of the four capacities of A Curriculum for Excellence (2009). Children need experiences of different types of talk to fully develop and refine their talking skills because these skills do not develop intrinsically. To enable personal, social and cognitive development in children talking is essential, yet a heavy emphasis is placed upon children's ability to read and write and these continue to be used as key indicators of children's progress in learning. The importance of teaching children to read and write is not to be underestimated but the teaching of talking skills and offering opportunities for children to be engaged in exploratory talk can have a significant impact upon children's learning. These meaningful issues inspired this interesting study.

Exploratory talk describes the type of talk children may engage in when they are exploring ideas either at the beginning or during a new learning experience. Barnes and Todd (1995) explain that when children use this type of talk, it is uncertain because they are trying to form new ideas and support each other to change and develop their ideas. Exploratory talk develops children's learning because it encourages children to work together, to think aloud, question each other's ideas and develop their thinking in a group setting. In an original study by Barnes and Todd (1977) they described exploratory talk as a type of dialogue that increases intellectual ability. Dawes reinforced this idea in her work and indicated that exploratory talk offers children opportunities to challenge their thinking and incorporate higher levels of thinking into their learning (Dawes, 2001 cited in Goodwin, 2001).

Talking Circles can be defined as small groups of children who read and talk together. In the class six children with different reading abilities made a Talking Circle. Every child in the class participated in a Talking Circle although not all children's progress was noted for the study. The skills required by the children to participate are the necessary social skills that would be expected from children according to their age. The Talking Circles were designed to encourage children to engage themselves socially and emotionally in a task and develop their understanding of language and how to talk to each other. Initially the children looked uncomfortable and 'lost' but over time their enthusiasm, interest and skills progressed and they relaxed and looked forward to the sessions. They became engaged with their learning.

Method

Methods used to collect data were observations, interviews and questionnaires. During each talking circle a teacher's observation schedule was completed about each child. The observation schedule was used to track children's developing skills over the course of the study and provided an insight into each child's thoughts during talking circle activities and their developing skills.

Structured Interviews were carried out with the six children in the focus group before the talking circles began and after the completion of the talking circles. This allowed a comparison to be made between views at the beginning and end of the talking circles for each child. The interview questions focused on eliciting children's views of talking, their views of the skills required to talk successfully and their own evaluations of their developing skills.

A structured questionnaire was issued to the six parents who visited the classroom on a weekly basis to support the talking circles. The questionnaire sought to elicit parental views on the importance of talk. Again, a comparison was made between the views before the talking circles began and after they had been completed. All parents responded enthusiastically to both sets of questionnaires.

Implementation

In preparation for the Talking Circles the children discussed and composed a list of talking and listening rules such as "We share ideas and listen to each other, we respect each other's ideas." These were displayed prominently in the classroom and reference was made to these as part of the self-evaluation carried out at the end of each Talking Circle session.

A reading focus was chosen for the Talking Circles because I was interested in initiating and developing creative ways to develop literacy skills. 'The Twits' by Roald Dahl was selected because it would appeal to the children and was of a suitable reading ability for the majority of children within the class. Talking activity cards were devised and these were directly linked to two chapters of the book that the children would read in each session. These would prompt and support the children in their discussions.

Six parental helpers opted into the Talking Circle session. Each parent visited the class

once per week and was responsible for the same group of children throughout the study. During one session three parents were responsible for three groups of children and as class teacher I took responsibility for one group of children. Before the Talking Circles began the parents were invited to a workshop to explain how the Talking Circles would work and the parent's role in the Talking Circle. Parents were informed their role in the initial stages would be to lead and model discussion and encourage children to contribute in however small a fashion. As time progressed and children began to show confidence and a willingness to undertake the discussion, parents were encouraged to pass responsibility and ownership to the children.

Talking Circle sessions were carried out twice a week for approximately forty-five minutes. During a Talking Circle session the children organised themselves into a circle. The teacher introduced the session, reviewed the events that had taken place in previous chapters and explained the Talking activity card. The children would then be encouraged to complete the reading in their groups either by each taking a turn, or if necessary, the by the adult reading part of the chapters. After completing the required reading the children used the Talking Circle activity card to discuss their ideas and opinions. They were encouraged to share their discussion with the class. Initially, some children lacked confidence and would not read or contribute to the discussion.

Over time the learning from the children's self evaluation and their developing understanding of talk began to have an impact and the children's talking skills developed.

Through discussion during the self-evaluation children became more aware of how to extend the group discussion by using dialogue starters such as 'if we disagree we ask why, why do you think that?', 'I agree with you because..'. In the initial stages these were displayed at each Talking Circle. The children were encouraged to refer to these and use them in their dialogue and discussion.

Findings and Impact

The study found that children's exploratory talking skills did increase and they did learn new talking skills. They also developed children's oral skills. After their experiences of the Talking Circles the children were more able to identify where they used talk in their learning, talk about the impact it had on their learning and talk about the skills of talking with confidence.

The children in the study were asked

"Do you think you are good at talking in class and when you work in a group? why (why not)?"

Before the Talking Circles a child replied, "Yes."

After the Talking Circles the same child replied

"Yes, the talking Circles helped me to talk and inspired me to talk."

Before the Talking Circles the children had been asked about how they might improve their talking skills. The children were unsure of how to answer this question and offered "Make friends" and "Talk to my mum," as answers to the question.

After the Talking Circles, the children listed many ways to improve their talking skills. These included

"Use the word because, eye contact and share opinions."

A significant finding from this study was parents' perceptions of talking. After spending time in the classroom and observing and experiencing the Talking Circles parents became much more aware of the skills of talking

e.g. one parent initially listed describing things, asking questions, good vocabulary and grammar as good talking skills. After the Talking Circles the same parent listed “Listening, speaking clearly, using appropriate language, being understood and tone of voice as talking skills.”

The parents’ skills became more specific and a direct link can be made back to their involvement in the Talking Circles. If parents are directly involved in children’s learning they can develop their own knowledge of teaching and learning in their child’s classroom.

Relevance to Educational Practice

Talking Circles are an effective and powerful tool with which to engage children in the development of exploratory talking skills. The amount of teacher talk within the classroom was reduced because the children took the discussion and dialogue forward. Ownership of learning was given to the children. Exploratory talk was evidenced which indicated children were engaging in a deeper learning and understanding than they would perhaps in a written task. Children’s confidence developed and this was evidenced from further classroom activities whereby they would be willing to contribute to discussions. A Literacy context was used in this study but Talking Circles are easily adaptable and could be used across different curricular areas such as science or problem solving tasks.

Positive feedback was received from parents about the Talking Circles and the impact it had had on their children’s confidence and their development of talking skills. The involvement of parents suggests parents can play an active role in their children’s learning and can benefit from being in the classroom working alongside the teacher and children to develop skills.

Finally, Talking Circles are a sustainable way of developing children’s exploratory talking skills. They develop a positive classroom ethos and provide a safe and nurturing environment to encourage children to develop exploratory talk. They are easily

implemented into the classroom setting and are adaptable in terms of the curricular area and the primary and secondary sector.

Establishing them in different stages of the primary school and within secondary education would strengthen children's talking skills and their confidence. As well as providing a stimulating learning experience, the use of Talking Circles links directly to the ethos and philosophies of A Curriculum for Excellence.

References

Barnes, D. and Todd, F. (1977). *Communication and Learning in small groups*. London: Routledge and Kegan Paul.

Barnes, D. and Todd, F. (1995). *Communication and Learning Revisited. Making Meaning Through Talk*. Portsmouth: Boynton/Cook.

Dahl, R. (1980). *The Twits*. London: Penguin Group

Dawes, L. (2001). Interthinking – the power of productive talk. In P. Goodwin. (ed.). (2001). *The Articulate Classroom. Talking and Learning in the Primary School* (pp125-132). Oxon: David Fulton Publishers.

Education Scotland. (2009). *Curriculum for Excellence*. Glasgow: Education Scotland.

Education and architecture – interdisciplinary collaboration in higher education.

Susan Buckman

Abstract

The study was undertaken by two lecturers, one from education and one from architecture at the University of Dundee. The purpose of the study was to investigate the benefits of interdisciplinary work between education and architecture students working together to understand the importance and impact of the built environment. A series of collaborative workshops were organised with data collected through observation and student feedback. Results provided insights into interdisciplinary work revealing benefits for both groups of students including a greater understanding of the impact of classroom design on pupil behaviour, development of student skills in professional dialogue and increased reflection on practice. The study has implication for the implementation of Curriculum for Excellence with its focus on the physical learning environment.

Summary Report

The purpose of this research study was to evaluate the impact of an interdisciplinary project involving architect and education students. The aim of the project was for both sets of students to work collaboratively to explore the influence of the built environment.

The collaboration involved year 4 education students who were designing a curriculum for primary education as part of their module 'The Thinking School' and year 2 architecture students who were creating design proposals for a primary school, which formed part of their module 'Architecture and People'. The architecture students' design module focused on social, physical and environmental factors that may affect the design of educational space. The education students' module was investigating how the design of the classroom may impact on aspects of creating an effective learning environment. In bringing the two

different disciplines together a sense of realism was created by introducing students to the broader context within which they will work after graduation as teachers or architects.

A series of workshops allowed the students to work together to explore the use of physical space within each other's disciplines. The education students acted as the 'client' in helping the architecture students develop a credible brief to drive designs for learning spaces. Discussing aspects of teaching and learning from the education students' direct experience helped the architecture students gain a deeper understanding of the needs to consider in their designs. In terms of the education students, Curriculum for Excellence has highlighted the link between implementing the curriculum and the importance of the physical space. The study focused on two of the collaborative workshops. The first took place before the architecture students started their design work, followed by the second that took place 2 weeks into the design process. During the workshops observations were made, in particular looking at levels of student engagement. Following the workshops a student survey was distributed that focused on the perceptions the students had prior to the collaboration and what they perceived as being the benefits of such interdisciplinary collaboration.

The students commented that they felt the workshop had prompted them to reflect on their own knowledge, helping them gain confidence as they realised they have developed specialist knowledge. The education students commented on how taking on this 'mantle of the expert' was one of the most positive outcomes of the collaboration *'I didn't know how much I knew until the architects started to ask me questions about education'* Many architecture students stated their surprise at how useful it was to talk to the education students, and were impressed by their knowledge and understanding of the impact built space has on teaching and learning. They appreciated *"getting information from students who have hands-on experience"*. There was an awareness that consultation

brings a reality to the design process and to have learned *“how a real life situation within the classroom would occur”*. The education students commented that engaging in professional dialogue with the architects made them far more reflective on their own practice and on how they could influence the learning environment within their own classrooms. After the project many students spoke about how the experience had made them see the wider aspects of university life in a different way. Working across disciplines allows students the opportunity to reflect on their personal development in relation to a different set of peers and helps develop their critical skills in a different context.

Learning to communicate with people outside a student's own discipline offers an alternative understanding of their profession, and projects focusing on this could work equally well across university disciplines or involving the wider community.

Susan Buckman

Lecturer

Education

University of Dundee.

Associated reading

Hinett, K., and Thomas, J.(1999) *Staff Guide to Self and Peer Assessment*. Oxford: The Oxford Centre for Staff Learning and Development,

Schon, D., (1985)*The Design Studio: An Exploration of its Traditions and Potential*. London: RIBA Publications Ltd.,

SERA 38th Annual Conference

Widening Horizons: Scottish Research in a Global Context

The annual conference of the Scottish Educational Research Association this year is an opportunity to reflect on how, in a globalising world, education has an increasing responsibility to prepare children, young people and lifelong learners to flourish as individuals and to contribute meaningfully to local, national and international communities.

The 2013 SERA conference, to be held in Glasgow, will be inviting researchers working in Scottish and international research contexts to share their insights in a three-day conference under the theme “Widening Horizons - Scottish Research in a Global Context”

Wednesday 20th November 2013

Opening day – Widening Horizons – Linking Research, Policy and Practice across Scotland

Thursday 21st November 2013

Day 2 - Widening Horizons - Linking research, policy and practice internationally

Friday 22nd November 2013

Day 3 – Widening Horizons - Scottish Research in a Global Context

Click on the following link to go to the conference web site:

<http://www.seraconference.co.uk/seraconference2013/Welcome.html>



Clinical approaches to school experience during initial teacher education: the student experience- Research Report

Delia Wilson, Maggie Jago and Dely Elliot.

University of Glasgow

Purpose of Research

This report examines the views of a group of Professional Graduate Diploma in Education (PGDE) primary and secondary student teachers engaged in a clinical model of school experience developed by the University of Glasgow. The identified clinical approach places a strong emphasis on the development of a community of practice, which promotes personal and professional relationships via close collaboration between school mentors, university tutors and student teachers themselves. The study focused on how the clinical approach affected self-confidence and self-esteem. Results suggest that the students following the clinical model experienced strong support from peers, university tutors and school mentors resulting in improved self-confidence and self-esteem. Students noted feelings of increased self-efficacy and felt well prepared for probation.

Report Summary

Whilst school experience is a valuable aspect of teacher preparation, it can, for the student teacher, be an isolating experience (Goodlad, 1990). Feelings of isolation experienced by student teachers can be detrimental in a variety of ways and can hinder teacher development (Hargreaves, 1992). However, a study by Dinsmore and Wenger (2006) suggests that this can be reduced by the use of a 'cohort model' which places a greater emphasis on peer to peer interaction during school experience and can 'create a safe, non-threatening atmosphere' (pg60). These authors conclude that positive relationships with peers developed during school experience, has a positive influence on learning during this period of teacher preparation.

Following the publication of the Donaldson Report, Teaching Scotland's Future (2010),

which suggested the need for new models of collaboration between school and university in the preparation of new teachers, the University of Glasgow piloted a new model of school experience based on the clinical practice used in the Professional Development Schools (PDS) in United States, Australia and elsewhere in the world. As well as regular peer interaction through weekly meetings of the group during the school experience period, the model encouraged closer collaboration between school and university staff through joint student teacher observations and joint assessment processes. The resulting 'community of practice' of primary and secondary students teachers, along with school and university mentors, sits well within Vygotskian principle of learning within social interaction, which is offered as a useful model of teacher education programmes by Van Huizen et al (2005).

An evaluation of the pilot programme was completed in 2011 (Menter) and provided evidence of significant gains and achievements in the professional development of the participating students. The programme was then continued into the next session, with the first full cohort completing their initial teacher education in June 2012. The aim of this study was to investigate if the clinical approach contributed to the personal development of participating student teachers including areas such as self-confidence, self-efficacy and self-esteem.

The key features of the clinical model are:

- Group consists of both primary and secondary students
- Group meets once a week with university tutors/school staff and participate in theory to practice seminars.
- Weekly small group peer observations take place with support of university and school staff.
- A single joint assessment report is produced by university/school staff.

The research was carried out using a focus group approach. The original student group

consisted of 8 secondary and 14 primary postgraduate student teachers enrolled in PGDE in the University of Glasgow, session 2011-2012. Of this group, 19¹ completed the course and 12² of these were involved in the research (63%). The group comprised 4 secondary and 8 primary student teachers placed in a cluster of schools in the west end of Glasgow. The research was carried out on completion of the course in June 2012 and data analysis was carried out using Nvivo.

Results summary

Perceived benefits identified by students:

- Increased contact with university tutors provided reassurance and allowed anxieties to be dealt with quickly.
- It was reassuring for students to discuss practice on a regular basis through weekly seminar meetings and weekly peer group observations.
- Feelings of isolation were reduced, particularly for students who had no other peers in their placement schools.
- As the course progressed, student teachers felt more confident and less anxious about regular observations
- Students following the clinical model felt well prepared for the challenges of probation

Conclusion

This small study suggests that the clinical model of school experience, as well as providing closer partnerships with schools, is one, which provides personal as well as professional support to student teachers on school placements. It contributes to the self-confidence and self esteem of student teachers, through participation in communities of practice. These

¹ Three students deferred their place due to illness and did not complete with the research group.

² All students on the group were invited to participate in the research, but the remaining seven were unavailable due to holiday arrangements.

effects can result in increased feelings of self-efficacy and preparedness for the challenges ahead.

The clinical model of school experience has now been extended by the University of Glasgow. More research is needed to continue to examine the wider effects of such a model on all participants.

References

Dinsmore, J., & Wenger, K. (2006). Relationships in Preservice Teacher Preparation: From Cohorts to Communities – Teacher Education Quarterly, Winter

Donaldson, G. (2010) *Teaching Scotland's Future-report of a review of teacher education in Scotland* Edinburgh, The Scottish Government

Goodlad, J. I. (1990) *Studying the education of educators: from conception to findings*. Phi Delta Kappan, 71, 698-701

Hargreaves, A. (1992). Cultures of teaching: A focus for change. In A. Hargreaves & M Fullan (Eds.), *Understanding teacher development* (pp.216-240). New York: Teachers College Press.

Menter , I. (2011) *The Glasgow West Teacher Education Initiative: A Clinical Approach to Teacher Education: Evaluation Report*, 31 October, 2011

Van Huizen P., Van Oers B., and Wubbels T. (2005) A Vygotskian perspective on teacher education. *Journal of Curriculum Studies*, Vol. 37, no. 3, 267–290

Tracing the making and implementation of education policy: the Donaldson Report

Anna Beck, PhD Researcher

University of Glasgow

Contact: a.beck.1@research.gla.ac.uk / twitter @anna_d_beck

Overview

This paper provides a brief summary of part of an ongoing doctoral research project which aims to illuminate the processes through which education policy is made in Scotland by mapping the implementation of a new teacher education policy: Teaching Scotland's Future (Donaldson Report). It employs elements of Actor Network Theory (ANT; Fenwick & Edwards, 2010; Latour, 2005) to trace the original agenda set out in the Donaldson Report as it travels through and is translated by two partnership groups. In doing so, I hope to identify the forces at play which can drive or inhibit change and locate power in the policy making and implementation processes. It is important to stress that this research does not attempt to 'evaluate' the Donaldson Report, nor the processes through which it is being implemented; rather, it seeks to map out the processes by which it is formulated and embedded within Scottish education.

Teaching Scotland's Future

In 2010, the Scottish Government commissioned a review of teacher education in Scotland, to be led by Professor Graham Donaldson, former Senior Chief Inspector of HMIE. The result, Teaching Scotland's Future (Donaldson, 2011), contains fifty recommendations for the improvement of teacher education in its entirety. It proposes to strengthen partnerships within education while recovering a kind of intellectual ethos rooted in the universities, and to 'reinvigorate' teacher professionalism. Some of the changes proposed could be considered as somewhat radical in nature, and require a re-conceptualisation of the way that we think about teacher learning and development.

The Scottish Government's immediate acceptance of all fifty recommendations (Scottish Government, 2011) was regarded by many as a significant demonstration of its commitment to reforming and modernising teacher education, in line with international trends (Darling-Hammond & Leiberhan, 2012; OECD, 2005). A National Partnership Group (NPG) was quickly established and tasked with translating the recommendations into policy and practice. The NPG reported their own set of recommendations in September 2012 (Scottish Government, 2012) and a

National Implementation Board (NIB) was then created to implement them. The work of the NIB is on going; however, a report is expected next summer.

Internal and external forces at play

One of the aims of this research is to identify external and internal forces that have become embedded in the process and to consider the impact that they are having on the policy as it unfolds. Some obvious examples of embedded external forces include PISA data, the role of the OECD and neo-liberal policy – all of which are interconnected and appear to be supporting the belief that teacher quality contributes to economic success in the global economy. Internal forces are more difficult to locate, but I am looking for these in the work of the NPG and NIB.

The NPG consisted of over thirty representatives from a range of organisations and bodies, including the General Teaching Council for Scotland (GTCs), Education Scotland, the Association of Directors of Education in Scotland (ADES) and the Scottish Teacher Education Committee (STEC). Throughout the process, its three sub-groups have drawn on a number of contributors with expertise in particular areas and opened up parts of the discussion to a broader spectrum of individuals involved in education. Interestingly, teacher unions were not directly represented on the NPG. In comparison the NIB has just over ten members, all of whom can be considered as powerful policy actors in Scottish education, and includes a representative from the Educational Institute of Scotland (EIS).

Given the representative nature of these two partnership groups, it could be postulated that they contain a wide range of differing positions, values, interests and power relations. Policymaking and implementation is often characterised by messy political mediation and bargaining; it is complex by its very nature (Ball, 1994). Implementing policy through partnership makes the process even more complex; this research is tracing and unpicking this complexity and the interaction of all of the different positions and interests represented in implementation.

Applying Actor Network Theory

ANT allows the researcher to follow a process in real time, acknowledging that policy implementation is fluid, dynamic and any perceived effects are only temporary. The ANT translation model of change (Latour, 1987; Callon, 1986) sees a policy text as unfinished: as it travels through space and time, it is either ignored or it is taken up by actors who see their interests

translated within it (Gaskell & Hepburn, 1998). As the Donaldson agenda has moved through the NPG and NIB it has been shaped by the actors represented within them. Some parts have been modified in line with the actors' public positions or interests, while some parts appear to have become temporarily silenced.

The main sources of data for this research are interviews with members of the NPG and NIB and documents such as working papers, policy texts, political announcements and press releases. I am tracing the Donaldson agenda through these documents, and in doing so, I am looking for three specific areas: what remains as intended from the original report, what becomes distorted and what is silenced. If members of these partnership groups are regarded as 'representatives' for key bodies such as the GTCS and STEC, then it can be presumed that interview data communicates some information about their interests, positions and values in relation to the Donaldson Report. This information is important, as ANT would suggest that any changes to the original agenda might be, in part, due to the way in which these actors are positioning themselves in the process. This provides us with some idea about the policy architecture of Scottish education and the power structures within this.

So where are we now?

It could be suggested that achieving and sustaining successful implementation of the whole agenda requires a significant culture change and shift in behaviour and attitudes. This of course will be no easy task; however, some significant changes have been seen already, such as the restructuring of the traditional B.Ed. degrees and the development of partnership models for school experience. It is clear that the agenda is still 'bubbling under the surface' – so how has it remained intact in such a messy and dynamic space?

Through an ANT lens, it is possible to see that parts of the original agenda have 'hooked on' to other actors in Scottish education, through the process of translation. For example, it has become a core element of the work of the GTCS and other key bodies in Scottish teacher education. On a larger scale, it has become linked in with wider education reform that includes Curriculum for Excellence, the leadership agenda and the drive towards accountability and self-evaluation in Scottish schools. Additionally, with Scotland taking more of a prominent position on the stage of global education reform, it has been referred to in recent OECD meetings and publications. This helps to keep the philosophy of Teaching Scotland's Future alive and alerts people on a global

scale to the differences between education reform north and south of the border.

- Ball, S. (1994). *Education reform: A critical and post-structural approach*. Buckingham: Open University Press
- Callon, M. (1986). Some elements of a sociology of translation: Domestication of the scallops and the fishermen of St. Brieuc Bay. In J. Law (Ed.), *Power, action and belief: A new sociology of knowledge* (pp. 196-233). London: Routledge & Kegan Paul.
- Darling-Hammond, L., & Lieberman, A. (2012). *Teacher Education around the World: Changing Policies and Practices*. Oxon: Routledge.
- Donaldson, G. (2011). *Teaching Scotland's Future. A report of a Review of teaching education in Scotland*. Edinburgh: Scottish Government.
- Gaskell, J., & Hepburn, G. (1998). The course as token: A construction of/by networks. *Research in Science Education*, 28, 65-76.
- Latour, B. (1987). *Science in action*. Cambridge, Mass: Harvard University Press.
- Latour, B. (2005). *Reassembling the Social: An Introduction to Actor-Network Theory*. Oxford: Oxford University Press.
- Law, J. (1999). *Actor Network Theory and After*. Oxford: Blackwell Publishers.
- OECD. (2005). *Teachers Matter: Attracting Developing and Retaining Teachers*. Paris: OECD.
- Scottish Government. (2011). *Continuing to Build Excellence in Teaching: The Scottish Government's Response to 'Teaching Scotland's Future'*. Edinburgh: Scottish Government.
- Scottish Government. (2012). *Teaching Scotland's Future – National Partnership Group Report to Cabinet Secretary for Education and Lifelong Learning*. Edinburgh: Scottish Government.

Integrating Information and Communication Technologies (ICT) into Early Childhood Education (ECE): A brief outline on the case of Greater Glasgow, Scotland

Nada Hammed

University of Glasgow n.hammed.1@research.gla.ac.uk

Abstract

This research aims to investigate what lessons may be learnt from ICT integration approaches in ECE settings through a series of explorative case studies in Greater Glasgow, Scotland (four preschools between Glasgow City and East Dunbartonshire). In particular, the research also takes into consideration practitioners' perspectives in order to create a better understanding of key factors that affect practitioners' ICT integration at the micro-system of the ECE playroom. This purpose allows for a set of guidelines for effective ICT integration to be suggested that will be of interest to the global ECE community. In drawing the collected data together, within the framework of Bronfenbrenner's ecological systems theory, a range of linear and non-linear factors at the micro-level (teachers' pedagogical beliefs, confidence, technological pedagogical knowledge), meso-level (local school policy, leadership, support) and macro-level (national ECE curriculum and national ICT policy) were identified that influence practitioners' use of ICT in the playroom.

Summary of the research

The main aim in the present research is to gain a deeper insight into the actual use of ICT in ECE settings in Greater Glasgow, Scotland. The aim in exploring the Scottish cases is to seek out evidence in this context that can provide insights into ICT integration globally, and help to promote knowledge to assist the development of ICT integration and to form recommendations that can aid and revolutionise practice. To address the study's research questions a collective case study approach is employed to investigate the situation and the status of ICT use in pre-school settings. Four case study settings are selected between Glasgow City Council and East Dunbartonshire. Multiple methods are used as a form of triangulation (questionnaire, semi-structured interview and playroom observation) in order to capture the intricacies of the relationships between the phenomena being observed. The research target community was practitioners in ECE settings including

head teachers, teachers and practitioners from both private and public preschools.

Calling upon Bronfenbrenner's ecological systems theory (1995) encourages a holistic approach given its consideration of the actors/ species *and* their interactions. It is employed in order to consider the hierarchical influences over preschool teachers' use of ICT at the micro level (playroom) of the ecosystem. An ecological metaphor is used to describe the complexity of interactions between influential factors at the micro, meso and macro system levels. The research theoretical framework also draws from the theories of Fullan (2001), Ely (1999), Tearle (2004), Zhao and Frank (2003) and complexity theory (Mason, 2008), in order to thoroughly identify the influential factors at each level of the eco-system and to inform the process of interpreting the interactions between the system levels, the organic and fluid nature of these changeable relationships.

In drawing the collected data together, within the framework of Bronfenbrenner's ecological systems theory, a range of factors at the micro-level (teachers' pedagogical beliefs, confidence, knowledge, skills), meso-level (leadership, school culture, infrastructure, training, local school policy) and macro-level (national ECE curriculum and national ICT policy) were identified that influence practitioners' use of ICT in the playroom. Research findings indicate that practitioners hold a positive perspective on the importance of ICT integration into ECE. In having a policy for ICT integration into ECE, Scotland is further down the road of ICT integration internationally. Investigating ICT integration into teaching and learning in the Scottish preschool case studies provides, at times, examples of child-centred learning through and with ICT, ones that suggest ways of integrating ICT fruitfully into the micro-level of the playroom. The wider ECE community can learn and benefit from these constructivist practices. Nevertheless, there remain some demands expressed by practitioners that have to be met for the effective integration of ICT in ECE. Practitioners hope for the comprehensive improvement of ICT integration into ECE and there is a clear desire for an explicit educational policy for ICT in preschool education and allocating time for continuous teacher training.

SERA Researching Education Bulletin Committee 2013

Lorna Hamilton, University of Edinburgh

lorna.hamilton@ed.ac.uk

Ross Deuchar, University of West Scotland

ross.deuchar@uws.ac.uk

Ian Matheson, Previously General Teaching Council for Scotland

Tony Luby, Association of Chartered Teachers Scotland

aluby257@aberdeenschools.org.uk

Anna Beck, Graduate student, University of Glasgow

a.beck.1@research.gla.ac.uk



*Improving education
through research*

SERA is a charity registered in Scotland SC003928