The Teaching and Learning Research Programme in Wales:

Improving Teaching for the 7–14 Age Range

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Rhwydwaith Ymchwil Addysg Cymru
Welsh Education Research Network

T·L·R·P TEACHING & LEARNING RESEARCH PROGRAMME

E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

The TLRP in Wales

Research evidence for educational policy and practice in Wales

The Teaching and Learning Research Programme (TLRP) (www.tlrp.org/), funded by the Economic and Social Research Council (ESRC), is the largest single programme of educational research ever commissioned in the UK. The programme consisted of 52 separate large scale projects, covering every part of the education system from early years to lifelong learning.

As the TLRP moved into its closing stages, the ESRC, the Welsh Assembly Government (WAG) and the Welsh Educational Research Network (WERN), came together to commission a final project designed to explore the implications of the findings from this major research programme for Welsh educational policy and practice.

Coordinated by John Furlong of Oxford University, four teams of researchers from across Wales have reviewed the findings from the TLRP in relation to four key areas of Welsh policy identified by the Welsh Assembly Government.

The four policy issues were:

- The Foundation Phase
- Improving Teaching for the 7–14 age range
- Social Inclusion
- Improving Learning by Taking Account of Learners' Perspectives.

The outcome of the reviews is a series of posters and briefing papers aimed at bringing findings from this major research programme to policy makers and practitioners across Wales. The reports represent the findings of independent research teams; they do not therefore necessarily reflect the views of the Welsh Assembly Government.

Executive Summary

The Welsh Assembly Government has yet to create a new vision for the education of the 7–14 year-old age group in the same way as it has transformed the curriculum for the age groups on either side of it (the new Foundation Phase for children aged 3–7, and Learning Pathways for 14–19-year-olds).

This report examines evidence from a range of Teaching and Learning Research Programme (TLRP) projects, and provides an evidence base for further developments in education for the 7–14 age group.

From an initial review of TLRP research (www.tlrp.org), eight projects were selected as relevant to the 7–14 age group. The findings are related to three areas of the School Effectiveness Framework[i]: Curriculum and teaching, Leadership and Working with others.

Because of the limitations of what can be included here, we would encourage you to read the original reports to gain a deeper understanding of the rich diversity of research undertaken and its relevance to education in Wales. We are also aware that there are a number of additional issues, highly significant to education policy in Wales, that were not considered within TLRP research and which are not, therefore, addressed in this review.

1. Key finding:

Curriculum and teaching

In the area of Curriculum and teaching, four broad themes emerge:

Dialogic/interactive teaching: a higher proportion of deeply interactive, or 'dialogic', teaching in schools is more beneficial for learning. With an interactive approach, learners have more influence over learning than with more direct, 'authoritative' teaching.

Learning how to learn (LHTL): LHTL is contextualised; it cannot be separated from learning 'something'. 'Thinking lessons' involve teaching methods that use the cognitive and social resources of classrooms.

Group work: Group work has a greater positive influence on academic progress than other forms of teaching and learning. ICT has the potential to support group work.

Use of ICT: The teacher is key for successful use of ICT in learning; ICT can support reflective, dialogic interaction; and ICT can help learners to engage with lesson content and influence the course of lessons.

Major implications:

Dialogic/interactive teaching: feedback and sustained interaction are key in encouraging dialogic interactivity. Teachers become managers or facilitators, learners are active: questioning, evaluating and explaining. Continuing Professional Development (CPD) training should encourage the use of ICT based resources which support dialogic interaction and may result in greater pupil learning.

LHTL: LHTL lessons are needed across the curriculum. Developing children's capacity to learn and become more skilful thinkers takes time and careful support. Learners need opportunities to talk about thinking, to jointly construct meaning, to evaluate thinking and to make connections within and beyond the curriculum.

Group work: although learners often sit in groups, they don't always work as groups. Pedagogical theories which favour teacher-led situations and individual work need re-thinking.

Use of ICT: ICT provision in schools should be clearly linked to a professional development strategy for interactive pedagogy. Professional development needs to enable teachers to take risks with ICT and learning.

2.
Key finding:

Leadership

Relating to Leadership, two themes were identified: 'Facilitating' school leadership:

Effective change means going beyond surface procedures and engaging with the principles of learning and teaching.

Staff development: teachers' capacities to be effective are influenced by variations in their work, lives and identities and by their capacities to manage these, but CPD has a consistently positive influence on teachers across all professional life phases.

Major implications:

'Facilitating' school leadership: it takes confident and well-supported leaders to provide their staff with opportunities to innovate, and learn from 'failure'.

Staff development: practical tips for teachers are helpful for beginning or less confident teachers in the short term. But they need to be rapidly built on in coherent, progressive programmes of professional development.

3.
Key finding:

Working with others

In the area of Working with others, three themes emerge:

Engagement and interaction with parents, learners and community: Home-School Knowledge Exchange (HSKE) activities can have a positive impact on teachers, parents, children, and attainment. There are considerable 'funds of knowledge' in the home held by parents, children and other members of the extended family, which can be used to support children's learning.

Collaboration with higher education (HE): reflective dialogue with an expert observer is valuable for teachers' professional development.

Transition from primary to secondary school: children at schools which carry out 'knowledge exchange activities' can make greater progress in reading from Year 6 to Year 7, be more positive about learning and adjust more quickly to some aspects of school.

Major implications:

Engagement and interaction with parents, learners and community: schools need to find ways of making community 'funds of knowledge' more visible in school. Educational policy-makers and primary school leaders should give greater priority to exchanging knowledge between home and school.

Collaboration with higher education (HE): teachers who use ICT to support dialogic approaches need training as mentors to support their colleagues.

Transition from primary to secondary school: families and teachers have extensive 'funds of knowledge' relevant to the transfer from primary to secondary school, but this is often ignored by secondary teachers. Primary/secondary transfer is a long-term process, and planning for it should cover Years 5–8.

The Research Evidence

1. Curriculum and teaching

Projects consulted:

ACTS II: Sustainable Thinking Classrooms 2001–2004
www.tlrp.org/proj/phase11/phase2g.html

InterActive Teaching and ICT
www.tlrp.org/proj/kennewell.html

Improving Effectiveness of Pupil Groups in Classrooms
www.tlrp.org/proj/phase11/phase2a.html

Interactive Education: Teaching and Learning in the Information Age
www.tlrp.org/proj/phase11/phase2i.html

Learning how to learn – in classrooms, schools and networks
www.tlrp.org/proj/phase11/phase2f.html

Towards Evidence-based Practice in Science Education (Research briefing 3: Teaching Pupils 'Ideas-about-science')
www.tlrp.org/proj/phase1/phase1bsept.html

Dialogic/interactive teaching

A higher proportion of dialogic – 'deeply interactive' – teaching is more beneficial for learning. An interactive approach to teaching requires a change in the role of the teacher and the learner from more traditional pedagogy. In a dialogic lesson, the teacher becomes more of a manager or facilitator of interactions which are designed to bring about learning. Alongside this, learners take an active role and engage in actions traditionally associated with the teacher, such as questioning, evaluating and explaining.

The key factors in encouraging dialogic interactivity are feedback on learner response and the sustaining of interaction for as long as is necessary for learning. Group work encourages learners to initiate interactions, and tasks can be structured to ensure that these interactions take place – see also the theme of Group work, below.

ICT has a role to play in this process: good teachers use ICT to stimulate and support reflective and dialogic interaction. ICT can be a means of encouraging learners who would not normally attempt an answer. ICT can also help learners to engage with lesson content and influence the course of lessons, but not always in the way intended. There are occasions when learners use software to achieve the task outcome without following the procedures teachers expect. Therefore, teachers should be aware of the need to intervene during ICT tasks. Welsh medium teachers identify a shortage of published ICT resources and some teachers devoted considerable time to selecting appropriate teaching material, because of the difficulty of finding material with an appropriate level of challenge.

'*Towards Evidence based Practice in Science Education*' [ii] reports that when teaching science themes, a teacher's understanding of the nature of science was less significant than might be expected. Rather, the teacher's pedagogical style and beliefs were at least as important. In particular, teachers' ability to structure and facilitate more open dialogic questioning in the classroom was paramount.

Case study

Theme:

Dialogic teaching

Project title:

Interactive Teaching and ICT

In the TLRP *Interactive Teaching and ICT* project, primary and secondary learners were interviewed in groups and asked questions about their learning and use of ICT. Learners expressed a wide variety of individual preferences on each issue that was explored. As might be expected with such a wide age range, learners differed in their preferences for particular modes of communication, including the use of songs, conversations, drawing, manipulating equipment, physical movement, pictures, and movies. Many learners did not like writing. Copying from the board or books was widely felt to be a negative factor in learning. Some learners recognised that they also learned by watching other learners performing

actions, and making mistakes, at the front of the class. The interactive whiteboard was a key feature in this process.

Comment:

At all ages, learners agreed that lessons should involve active participation and 'fun'. This was characterised by unpredictability, rapid feedback and, for some, competition. Many learners were clear that 'fun' was a factor which helped them to learn. The value of ICT was clearly seen in terms of how it supported participation and fun, so that games and quizzes were particularly popular. The clarity of the visual display and rapid feedback on their ideas were also seen as valuable.

Learning how to learn (LHTL)

In a society where lifelong learning is valued, learners need to become independent learners. For LHTL to be successful, teachers need to promote learners autonomy and ensure that this takes place. There are obvious parallels here with the concept of dialogic teaching examined above. Teachers need to adopt an empowering philosophy and communicate this to their learners, and schools need to develop classroom practice that helps learners learn how to learn.

Practices likely to promote LHTL overlap with, and build upon, those associated with formative assessment or Assessment for Learning (AfL). These include clarifying learning goals and criteria, reflecting on learning, and acting on feedback. This is not always easy and research suggests that 'the AfL programme had frequently been implemented as a set of instructions handed down to teachers and the over-arching aim of independent learning had got rather lost.'[iii] Once effective practice is developed, it is important that schools develop networks to share these ideas and approaches quickly.

There are positive examples of teachers attempting to promote LHTL in ways that are in line with their own values, but this can be difficult in a performance-orientated system. For teachers to progress from reliance on specific techniques to practices based on deep principles, they not only need to re-examine their own fundamental beliefs about learning and the role of the teacher, but also to be able to take risks – an idea returned to in 'Use of ICT', below. Classroom-focused inquiry by teachers has a vital role to play in this, and schools that use initiatives such as LHTL make support for professional learning a priority.

It is generally agreed that children cannot become better thinkers – able to give reasons for their conclusions, to think flexibly and creatively, to solve problems and make good decisions – solely by learning a content-based curriculum. One successful approach is 'infusion', which places thinking in the context of normal curricular topics so that topic understanding and thinking can be taught simultaneously. Infusion can be subject-specific (science, mathematics, history) or may be developed on a wider scale across the curriculum. There is a need, however, for teachers to design, or re-design, lessons from topics across the curriculum rather than teach from pre-designed thinking lessons. However, if an explicit and systematic focus on thinking is to be successfully designed into the curriculum, teachers need time for planning, and opportunities for collaborative professional development.

Evidence suggests that 'thinking lessons' must be designed in tandem with the development of teaching methods that engage learners both cognitively and socially. Research suggests that it takes time to develop children's capacity to learn and become more skilful thinkers. It needs careful support if children are to become autonomous and self-regulating. When expanding the implementation of thinking skills, particular attention should be paid to children with poorer cognitive and social resources.

Group work

There is a wide gap between the potential of group work and its limited use in schools. Groups in classrooms are often formed without a strategic view of their purpose, and even though some tasks may be assigned to groups of learners, there is too little support for learner–learner interactions within groups to make learning effective. Learners are infrequently trained for group work, while teachers have doubts about – and lack effective strategies for – setting up and managing group work in classrooms. Instead, learners work individually or as a whole class, and thus find themselves in an environment that often allows them to be distracted by social talk.

Providing teachers and schools with a handbook of practical strategies and advice, based on key principles, and support for setting up, managing and improving the effectiveness of group work is a successful approach to the integration of group work in everyday classroom life.

As well as social development, group work can benefit academic progress more than other forms of teaching and learning under normal classroom conditions. There are possible gains in learners' academic progress at Key Stage (KS) 1, 2 and 3. The *Improving Effectiveness of Pupil Groups in Classrooms* project found benefits at KS1 in reading and mathematics. At KS2, group work seems to benefit all types of knowledge in science, but especially conceptual understanding and inferential thinking. At KS3, the success of group work depends on the type of topic, but appears to benefit higher cognitive understanding. In addition to academic progress, personal relationships between teachers and the class and between learners within the class improve, provided teachers take time to train learners in the skills of group working. This suggests that group work can be an effective approach to school discipline.

Involving learners in group skills training, and using group work alongside other forms of teaching and learning, encourages children to become more actively engaged in the learning process and facilitates more thoughtful learning processes. In common with other pieces of research reported here, there is a need for teachers to rethink current pedagogical theories to bring effective group work into the classroom.

The potential of ICT to support group work is not widely recognised. Research on the role of ICT in supporting forms of talk in group work should be built upon with more resources and professional development.

Use of ICT

Despite significant investment by government, the effective use of ICT in education remains variable. Although the use of ICT in the classroom is recommended by official policy at all levels, in many schools the response is limited to buying basic hardware and infrastructure. The location of this hardware often affects its effective use and may be restricted to particular places in schools. The *Interactive Education: Teaching and Learning in the Information Age* project showed that teachers have a positive view of technology. 47% said it enhanced their role as a teacher, while 53% said ICT had a beneficial impact on the learning environment. When lessons using ICT go well, teachers tend to attribute this to learner motivation, and when they go badly, most teachers blame the equipment. Nevertheless, the teacher remains central to the successful use of ICT for learning.

The *Interactive Teaching and ICT* project suggests that, when planning the use of ICT, teachers should focus on more dialogic activity which mixes whole-class, small group, pair and individual work and is supported by appropriate resources. There is evidence that ICT can be used to assist in this approach, but during initial stages of use, the level of interactivity may be relatively low whilst teachers gain skills and evaluate the ICT based resources.

ICT can support dialogic teaching by providing for learner interaction:

- **about** ICT resources (such as discussion of a video clip or critique of a learner's writing displayed on the board)
- **with** ICT resources (such as playing a game or attempting a challenge with immediate feedback)
- **through** ICT (for example collectively developing a concept map in Science or constructing a sentence in Welsh).

ICT can also be used to disseminate and share ideas. *The Learning how to learn – in classrooms, schools and networks* projects informs us that, although teachers are optimistic about the value of electronic tools for professional development purposes and networking, they are not well-used.

2. Leadership

Projects consulted:

ACTS II: Sustainable Thinking Classrooms
www.tlrp.org/proj/phase11/phase2g.html

Interactive Education: Teaching and Learning in the Information Age
www.tlrp.org/proj/phase11/phase2i.html

Learning How to Learn – in Classrooms, Schools and Networks
www.tlrp.org/proj/phase11/phase2f.html

Variations in Teachers' Work, Lives, and their Effects on Pupils (VITAE)
www.tlrp.org/dspace/retrieve/1786/Day+RB+20+FINAL.pdf

'Facilitating' school leadership

As will be evident already, change in education, particularly but not exclusively for teachers, involves going beyond surface procedures and engaging with the principles of learning and teaching. Sustained and sustainable teacher development needs to focus not only on classroom practices but on teachers' beliefs about, and images of, learners and learning. This theme will be covered in more detail in the 'Staff development' theme below, but the context in which change takes place is central to success. As the LHTL project demonstrates, teachers and learners can have many new ideas, but unless they are allowed to develop them, they remain ideas and have limited impact. To make change easier for teachers, school leaders need to create structures and cultures that focus on learning. They must support teachers in creating, sharing and evaluating innovations in classroom practice. It takes confident and well-supported leaders to provide their staff with the space and permission to innovate, and perhaps learn from 'failure'.

Staff development

Effectiveness is a complex idea that needs to be understood in relation to teachers' perceptions and how these vary over time in different institutional and personal contexts, and in comparison with other teachers in similar contexts in terms of value-added learner attainment. Teachers' effectiveness is not simply a consequence of their age or experience. It is influenced by:

- their professional life phases
- their sense of professional identity
- their commitment and resilience.

Teachers' effectiveness is mediated by continuing professional development and the extent to which teachers sustain their sense of positive professional identity. For many teachers, however, the effects of CPD are not as great as those of the conditions in which they work, the quality of school leadership (both at school and department level) and colleagues, personal events and experiences, and the negative effects of policies.

Teachers' needs vary throughout their careers, but advice on various teaching and learning strategies and techniques is useful to beginning or less confident teachers in the short term. Yet progressive professional development requires teachers to re-evaluate their beliefs about learning, the way they structure tasks, and the nature of their classroom roles and relationships. Classroom-focused inquiry has an important role to play but it makes considerable demands on teachers and schools because it may involve risk-taking, opening practice up to critical scrutiny, collaboration, and a willingness to take responsibility for decisions, actions and consequences. As above, school leaders are important as they need to create structures an cultures that support teachers in sharing and evaluating innovations in classroom practice.

Sustained teacher development needs to focus not only on classroom practices but on teachers' beliefs about, and images of, learners and learning. In addition, professional development needs to empower teachers to take risks with ICT and learning.

3. Working with others

Projects consulted:

Home-School Knowledge Exchange and Transformation in Primary Education 2001–2004 (Research briefing 22)

Home-School Knowledge Exchange and Transformation in Primary Education 2001–2004 (Research briefing 45)
www.tlrp.org/proj/phase11/phase2e.html

Interactive Education: Teaching and Learning in the Information Age
www.tlrp.org/proj/phase11/phase2i.html

ICT and InterActive Teaching
www.tlrp.org/proj/kennewell.html

Towards Evidence based Practice in Science Education
www.tlrp.org/proj/phase1/phase1bsept.html

Engagement and interaction with parents, learners and community

Home-school Knowledge Exchange activities (HSKE) can have a positive impact on teachers, parents and children, and on attainment in literacy and mathematics. There are substantial 'funds of knowledge' in homes and communities which can be used to support children's learning. In this process, the importance of children's own knowledge should be recognised.

Funds of knowledge are embedded in national and ethnic cultures, and in the experience of family members. Popular culture is also an important influence on children's 'funds of knowledge'. Communication needs to take place in two directions, from home to school as well as from school to home. This requires a fundamental shift of perception amongst teachers and educational policymakers – from seeing parents in terms of how far they can support classroom learning, to seeing them as a source of knowledge about their children's out-of-school learning. Schools also need to recognise what learners and their families offer and identify ways of making this knowledge more visible in the classroom and in the school. There is a particular two-way traffic between home and school, for example, in which young people pass on ICT skills (such as PowerPoint) to their parents. Other examples of how to make funds of knowledge more tangible are provided in the research studies (including videos, photographs and shoe-boxes of significant items). Such activities can make parents more knowledgeable about what happens in school, and help teachers understand more about children's out-of-school lives. They can also help teachers use the knowledge acquired about children's out-of-school lives to enrich the curriculum.

Case study

Theme:

Engagement and interaction with parents, learners and community

Project title:

Enhancing Primary Literacy and Mathematics through Home-School Knowledge Exchange

This four-year project involved close co-operation with teachers, parents and children to develop, implement and evaluate the impact of HSKE activities. The research had three main strands, focussing on literacy, mathematics and facilitating transfer from primary to secondary school. (See *Transition from primary to secondary school* below.)

The literacy and mathematics strands were implemented in four 'action' primary schools. A set of 'comparison' schools which were matched with the action schools were also involved. Researchers found that there are considerable funds of knowledge in children's homes and communities which support their learning of literacy and mathematics, but children and their families do not usually consider they are doing 'literacy' or 'mathematics' when

they engage in such activities. Some of the funds of knowledge on which children drew had clear ethnic origins. Children also drew extensively on their knowledge of popular culture such as TV programmes, films, nursery rhymes and books. Neither the children's teachers nor their parents seemed fully aware of the influence of popular culture on children's literacy learning. Researchers worked closely with teachers and parents in the action schools to develop a programme of HSKE activities, and further activities were also developed which brought information or knowledge into school about children's lives outside school. There was significant evidence that the knowledge exchange activities were having a positive effect on children's attainment.

Several examples were noted of simple activities that can help the exchange of knowledge between home and school. For example, several families of Asian origin used the traditional practice of strand counting, in which family members counted on their fingers using finger-joints to represent one unit. Members of the extended family often played a key role in passing on this kind of knowledge. One child who was learning Punjabi at her local Gudwara was given strategies for memorizing the letters by her grandfather, as she 'couldn't keep them in my head'.

Comment:

The project underlines the idea that developing children's capabilities in areas such as literacy and mathematics is not simply a matter of teaching basic skills in school. It is also about recognizing that much learning in these areas takes place out of school, as children use their emerging literacy and mathematics skills in a wide range of everyday contexts. The substantial 'funds of knowledge' in children's out-of-school worlds can be drawn on to support their learning in school. Teachers need to find ways in which they can identify, recognise and make use of these funds of knowledge to support children's learning in the classroom.

This exchange of knowledge works in both directions. HSKE activities can make parents more knowledgeable about what happens in school, and also help teachers understand more about children's out-of school lives. The implications of these examples is that HSKE activities need to be tailored to the particular home and school communities with which they are trying to connect.

Collaboration with higher education (HE) – the use of research evidence

In previous sections we considered the importance of a supportive environment. Once this is established it becomes possible to challenge fundamental ideas about learning and teaching, including the identity and role of both teacher and learner. The TLRP projects demonstrate a range of approaches which help teachers challenge ideas in a supportive environment. This support and necessary challenge can be provided by colleagues within schools – or often colleagues from higher education, too. Reflective dialogue with an observer about lesson activities and resource evaluation is valuable for teachers' professional development. When using ICT, teachers benefit from mentor support to explore resources, gain skills, and reflect on their teaching.

In reflecting on being part of a research team, teachers value collaboration with other teachers, but feel that being able to watch themselves teach, and discussing lesson episodes with a researcher, are the most effective strategies. Through this, they become more open to ideas, and more confident in making independent judgements and developing their own expertise with ICT.

Research suggests that future ICT resource development should be focused on improving opportunities for dialogic interaction. ICT provision in schools should be clearly linked to a professional development strategy for interactive learning, so that teachers gain an understanding of how the use of ICT resources by teachers and learners can support a more dialogic level of interaction for their learners.

The *Interactive teaching and ICT* project found that good teachers were able to talk clearly about their dialogic strategies and the features they looked for in ICT resources to support them. They valued the discussion with expert observers, which focused their thinking on what influenced learning. This suggests that a CPD strategy based on identifying teachers who use ICT to support dialogic approaches, and training them to mentor their colleagues within a

school or cluster of schools, may be more effective than external courses or specialist ICT trainers.

The *InterActive Education: Teaching and Learning in the Information Age* project showed that a successful model for professional development is to create networks in which teachers and researchers work in partnership to design and evaluate learning initiatives which use ICT as a tool for learning. Such professional development requires people to break out of set roles and relationships, in which researchers are traditionally seen as knowledge generators and teachers as knowledge translators or users.

Within professional development, there is an important role for the use of research findings. We have seen above that teachers' practice can be significantly influenced by making available teaching materials based on research findings and insights. The 'Towards Evidence Based Practice in Science Education' project suggests that if these are 'translated' into specific practical implications, or teaching materials, the likelihood and scale of their impact on practice is greatly increased.

Case study

Theme:

Collaboration with higher education (HE)

Project title:

Towards Evidence Based Practice in Science Education (EPSE)

This project focused on evidence that learners can hold a number of misconceptions or 'commonly-held ideas which differ from the accepted scientific view' relating to fundamental ideas in Science[iv]. This study aimed to develop a bank of diagnostic questions which could be used by teachers to assess their students' understanding of key ideas, and then adjust their teaching as a result of this information. A key challenge was to generate good diagnostic questions.

The project produced a large bank of diagnostic questions, based on previous research, for the science topics of electric circuits, forces and motion and models of matter – and a smaller set of questions on biochemical life processes (digestion, respiration and photosynthesis). These diagnostic questions were developed in collaboration with a 'partnership group' of practitioners, which comprised of several primary and secondary teachers, LEA advisers and writers of teaching materials. Diagnostic questions were trailed in partner teachers' schools, with follow-up interviews with a sample of students to probe their understanding further.

Comment:

The question banks were designed to be used flexibly by teachers, enabling greater 'ownership' over the material and its use. The fact that the questions had been developed, trialled, evaluated and revised as a result of their use within real classroom settings added an element of credibility. The collaborative nature of this research highlights the important gains which can be made from different sections of the education community working together.

Case study

Theme:

Collaboration with higher education (HE)

Project title:

Improving the Effectiveness of Pupil Groups in Classrooms – Phases 1 and 2

This study focused on researchers and practitioners working together to develop a handbook detailing suggested good practice for group organisation, as well as appropriate strategies and activities which could help to develop group-work skills. This approach helped to give ownership of the process to the practitioners, who were able to draw on their own classroom experiences to inform the process. However, it also provided the opportunity for the researchers to provide evidence-based advice which encouraged the teachers to, in some instances, go against their initial 'gut' feelings. For example, teachers were encouraged to persist with specific groupings despite initial 'clashes' between group members.

Comment:

The development of a practical classroom resource – a handbook which could be used to inform day-to-day practice – was valued by the practitioners. The resources were designed to be used flexibly, enabling practitioners to adapt them to their specific situations. The different elements of knowledge and expertise provided by the researchers and classroom practitioners were used collectively.

Transition from primary to secondary school

Primary-secondary transfer is a long-term process. The *Home-School Knowledge Exchange and Transformation in Primary Education 2001–2004* project[v] advises that the transfer process needs begin in Year 5 and continue through into Year 8. Parents, children and primary teachers all have significant 'funds of knowledge' which can be drawn on to support transfer to secondary schools, but this knowledge is often ignored by secondary teachers.

Research findings from this project suggest that 'knowledge exchange' activities have a positive effect on students' adjustment to secondary school, which in turn has a significant influence on their attainment. This is important as social, emotional and academic development is closely interrelated. Children at schools where HSKE activities occur make greater progress in reading over the potentially difficult transition period from Year 6 to Year 7, the TLRP project found. They are also more positive about learning and adjust more quickly to some aspects of their secondary schooling.

The same project contends that transfer to secondary school presents a potential threat to a learning identity established in primary school, as well as providing an opportunity to develop a new identity. So, developing and maintaining an appropriate 'learning identity' for the learner at the point of primary–secondary transition – and beyond – may be of crucial importance. In the project findings there is evidence to suggest that children who are particularly 'at risk' when transferring to secondary school - such as boys, and children from some minority ethnic groups – can benefit from such home–school knowledge exchange. However, schools need to make sure learners and their families are not excluded or marginalised by these activities. Schools need to consider how they will provide targeted support for these 'at risk' groups. These strategies could include personalised invitations, home visits, regular phone calls and efforts to build an individual relationship with each family.

Case study

Theme:

Transition from primary to secondary school

Project title:

Supporting Primary-Secondary Transfer through Home-School Knowledge Exchange

This project evaluated the impact of HSKE activities on children's transfer from primary to secondary school. Researchers followed a cohort of learners through Year 6 and into Year 7. HSKE activities were developed with this set of learners, their families and their teachers. Some activities took place before transfer in Year 6, while others took place after transfer in Year 7. A set of comparison schools which were matched with the action schools were also involved. Researchers established that there are considerable funds of knowledge in children's homes and communities, which can be drawn on to support transfer. A key finding, however, was that although teachers in the primary schools were keen to make their knowledge available to the secondary teachers, this opportunity was often ignored or dismissed by secondary schools. Researchers found that, while there were substantial funds of knowledge to support transfer, there were also many areas where knowledge needed to be shared more widely and effectively between primary school, secondary school and home. A range of knowledge exchange activities were developed to facilitate these needs.

Comment:

This research project highlighted the fact that primary/secondary transfer is a process rather than a one-day event. This process may need to begin as early as Year 5 and continue in to Year 8. Researchers found that involvement in knowledge exchange activities lead to learners making significantly greater progress in literacy from Year 6 to Year 7 compared to students who had not, while they also made greater progress in mathematics. Students' attitudes towards their learning during the period of transition were also more positive where they had been involved in knowledge exchange activities. Research findings suggested that knowledge exchange activities had a positive effect on students' adjustment to secondary school, which had a significant impact on their attainment, as social, emotional and academic development are closely inter-related. A key finding suggested that these activities encouraged learners to develop or maintain a 'learning identity' conducive to learning in the new school. The research suggests that children from 'at-risk' groups can benefit just as much from home-school knowledge exchange activities as children from other groups.

Notes

i. DCELLS, 2008
ii. Research Briefing 3
iii. Learning How to Learn – in Classrooms, Schools and Networks, Plain English Summary, p2
iv. p.25
v. Research Briefing 45