inside EVIDENCE

Engaging in, and with, research
How can we use evidence to improve practice?

The Spring 2009 issue of the *Quality improvement* Journal focuses on how and why practitioners and policymakers engage with research evidence. The raison d'être of *Inside Evidence* is to explore how research findings could make an impact on learner outcomes in the future.

In this issue, we explore the key areas of literacy, numeracy and ICT, drawing on 'academic' research as well as a range of studies carried out by further education teachers in their own classrooms. We also found evidence from our research about what exactly employers expect from prospective employees.

When selecting research for this issue, we were struck by the number of times the business of relationship-building with learners cropped up. It seems it's something in which we have a track record of doing well. We explore the evidence for what makes this work from the perspective of:

- learners (looking specifically at 14-16 year olds)
- a psychologist and counsellor in this area – Carl Rogers.

This is the first time we have included an item on a theorist. Is it helpful? Would you welcome other theorists in future issues?

As usual, we suggest a number of activities that you might like to try in the light of the research findings. Our aim is to select activities that are useful, whether you are researching or just want to try out evidence-informed strategies. If you do try them out, please write to us so that we can feature examples of practice in the journal or Excellence Gateway.

What's the evidence?

The research featured on these pages is carefully appraised using a specially designed instrument. This helps us to ensure that the findings are trustworthy, relevant and can be used in different contexts.

Literacy
Is teaching phonics as helpful for adults as it is for children?

There has been considerable interest in phonics at primary level following the evidence about systematic phonics instruction. But how phonics might be implemented effectively with adults, or whether it's even an appropriate method for adults, has so far received little attention. All this could be about to change.

A practitioners' guide to phonics teaching with adults was published late last year as a result of a research project involving nine teachers carried out by the National Research and Development Centre (NRDC). After just one term of using a systematic phonics approach, the researchers found that:

- the learners (mainly Entry 1-3) had made significant progress in reading comprehension and spelling skills
- the learners' confidence improved in a range of language and literacy tasks.

Phonics was popular with learners and teachers alike, with eight of the nine teachers saying they would definitely continue to use the strategy with their learners. So how did they do it?

The teachers first attended four days of training that included the basics of English phonetics (the sounds we use and the way we say the sounds) and phonology (the system of sounds in language, how they are organised and what patterns there are). The teachers were encouraged to base their phonics teaching on the DCSF scheme Letters and Sounds. Having the theoretical knowledge gave the teachers the confidence to adapt resources and materials, and to deal with learners' questions.

When introducing phonics to their classes, the teachers were careful to celebrate the fact that their learners, as adults, were already knowledgeable and to maintain a distinction for the learners between approaches for adults and children. In one class, after the teacher had explained that they would be working on phonics over the coming term, a learner said she had talked to her daughter and knew that phonics was used in schools to help children read. The teacher explained that they would not be doing phonics in the same way and that they would use phonics to learn things they had not already learned.

The teachers' starting points depended on the level that they felt their learners had reached. They

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followed a clear, planned structure. With hindsight, the teachers often wished they had taken smaller steps in the first session. Because they were frightened of boring their learners, they had moved on quickly when what the learners had really needed was lots of repetition.

Using a good range of resources and fun activities was fundamental. As there is currently a lack of phonics materials aimed at adults, the teachers often designed their own, based on ideas from Letters and Sounds. These included games such as bingo, where the learners were given a grid of Consonant/Vowel/Consonant (CVC) words (pin, sat etc) and the teacher called out words that the learners had to identify and cross off.

The evidence from this study suggests that teaching phonics can be as useful for adults as it is for children. There is no need to exclude a phonics approach just because it is being advocated for children and/or it appears to have been ineffective as a method during a learner's school days. Overall, there was a high level of enjoyment, with only two learners describing phonics as "babyish" – a result that testifies to the teachers' creative adaptation of methods and resources.

Evidence source
Burton, M., Davey, J., Lewis, M., Ritchie, L. & Brooks, G. (2008) Practitioner Guide: 'Improving reading: phonics and fluency'. NRDC: http://tinyurl.com/de3urb

Take action

- Could you familiarise yourself with the underpinning knowledge base surrounding phonetics and phonology?
- Could you work with colleagues to create phonics resources appropriate for adult learners that you all could share?

Illustration by Elly Walton

Oracy

Should we ask adult learners to read out loud?

Many of us tend to avoid asking adult learners to read out loud for fear of putting them under too much pressure or embarrassing them. But according to research published by the National Research and Development Centre (NRDC), our worries may be unfounded. The research showed that when teachers worked to develop their learners' oral reading fluency (rapid, accurate, expressive reading to one or more people), their learners came to enjoy reading out loud. Most learners became more confident at reading and made significant gains in reading comprehension in a relatively short space of time.

The project teachers (a pilot of six followed by a group of eight teachers of adult literacy) were given training in teaching oral reading fluency and asked to use the demonstrated approaches with their classes over one term. Several approaches were variations of 'paired reading', whereby the learner read in unison with a teacher or assistant. The pair started by reading the text together until the reader signalled that s/he was happy to read alone. When the learner got stuck on a word, the teacher or assistant quickly supplied it. This approach aimed to take the pressure off the learners by allowing them to decide if and when they wanted to read alone and not leaving them to struggle over words.

Evidence sources

Burton, M. (2007) 'Oral reading fluency in adults'. NRDC: http://tinyurl.com/ak3oub

Burton, M. et al. (2008) Practitioner Guide: 'Improving reading: Phonics and fluency'. NRDC: http://tinyurl.com/de3urb

One variation was 'choral reading', whereby all learners read the text aloud at the same time – again taking the pressure off individuals. The teachers saw this approach as providing "a safe way for learners to practise and make mistakes without everyone else knowing". Another variation was when two readers read aloud to each other. This technique didn't just benefit the tutee – the tutor's confidence was boosted too. The approach was also used successfully as a way of coaxing very reluctant learners to read when other methods seemed to have failed.

Other methods used included 'repeated reading', whereby the same text was read again and again over a few weeks (while being careful not to flog a text to death) and 'modelled' (echo) reading, whereby the teacher read out a short phrase and the learner repeated it. This last approach provided a good opportunity for the teacher also to model expression (signalling comprehension) and discuss alternative interpretations with the class. One teacher asked her learners to think about where the emphasis should be placed in the following two lines from a poem:

The teachers all thought
That he couldn't be taught

She read the two lines several times emphasising different words each time (such as "couldn't" and "taught") and asked the learners how they felt it changed the meaning of the whole phrase.

'Performance reading', which involved preparing for or rehearsing a performance to other learners from other groups, involved a mix of the methods described earlier. Contrary to what the teachers expected, more than half of the learners said that they found reading to a group no more of a problem than reading to one other person.

The 40 level 1 and 2 learners (who ranged in age from 16 to 60) taught using these approaches made significant gains in reading comprehension, equivalent to about half a level in the National Qualifications Framework in just five or six sessions. Such was their enthusiasm for the approaches used that three-quarters of them wanted to continue learning in this way.

Take action

- Could you try out a selection of the approaches described with your learners and see which are the most successful?
- Could you use these approaches to support other learning activities?

Action and reflection
How can we improve outcomes for ESOL learners?

Increasingly, teachers are seeking to develop their teaching through a cycle of self-reflection, change of practice and re-evaluation. This process, often called action research, is illustrated practically in this issue of the Journal. On this and the facing page, we showcase a selection of action research projects supported by the National Centre for Excellence in the Teaching of Mathematics (NCETM), the National Research and Development Centre (NRDC) for adult literacy and numeracy and the National Teacher Research Panel (NTRP).

Choosing a focus for an action research project very much depends on your interests and the context in which you work. How to enhance the learning for ESOL learners was the central problem for two of the projects we have selected. The problem for the first of these projects was twofold. On the one hand, numeracy tutors were saying they felt inadequately equipped to deal with the ESOL learners in their classes; on the other, ESOL managers were aware of ESOL learners who needed numeracy skills but who were reluctant to enrol in mainstream adult numeracy classes.

With the help of the Adult Learning Service, the ESOL and numeracy tutors worked collaboratively to explore the underlying issues. They planned and set up two new ten-week numeracy courses for ESOL learners. Both courses were run by a numeracy tutor, but with the support of an ESOL tutor. The ESOL tutors gave the numeracy tutors written feedback on every lesson using a specially designed feedback form. This identified whether a particular activity was successful with some or all of the learners, any barriers or sources of confusion, possible reasons for the confusion and suggestions for change.

In one activity, learners were asked to round off random numbers that the tutor had written on the board to the nearest ten, hundred or thousand. The ESOL tutor commented that the ESOL learners were confused between 'round' meaning 'circle' and meaning 'next to'. The ESOL tutor suggested that it was important to have discussions with learners first about the meanings of words, introduce other words with similar meanings (such as roughly) and give an example, such as rounding off prices when shopping. The next step for the numeracy tutors will be to put all they have learned into practice with a new 'preparing for maths' class for ESOL learners and three new 'maths for ESOL learners' courses, and then to monitor how they get on.

Another group of teachers were concerned about how they could best help ESOL learners participate more fully in conversations. The teachers began their action research by reflecting as a group on what happened in ESOL-speaking classrooms, discussing what kind of topics seemed to produce the most learner talk. They reflected, for example, on how contrived dialogues, such as between a market stall holder and a customer, did not seem to work as well as real situations. A tutor telling her class she was starting on a diet (again!) produced a good discussion, including lots of advice, which developed into a deeper debate around weight loss.

Next, the team moved on to analysing data from their own classrooms. They set up speaking activities for two to three weeks and reflected (in writing) on what happened. The team recorded and transcribed parts of those lessons in which speaking took place to help them with planning subsequent lessons. Back in the classroom, they carried out their plans, recorded and transcribed their lessons, and later discussed the transcriptions with the rest of the team.

> Choosing a focus for an action research project very much depends on your interests and the context in which you work

Evidence sources
Molloy, C. (2008) 'Professional development needs of numeracy tutors to enable them to teach ESOL learners'. NCETM: http://tinyurl.com/bst6f9

Cooke, M. & Roberts, C. (2007), 'Reflection and action in ESOL classrooms'. NRDC: http://tinyurl.com/cqvwn6

Take action

- Could you record (sound or video) part of one of your sessions to review later, either on your own or working with a colleague? Remember that for research you need data – which doesn't necessarily mean numbers.

Illustration by Corey Jackson

Information Technology
Can voting sticks enhance teaching and learning?

Voting sticks, like those used to 'ask the audience' in the TV programme *Who wants to be a millionaire?*, seem to be the latest classroom gadget. Innovative teachers have been quick to see their potential for engaging learners in activities and for assessing their learning. A number of teachers have also started to explore their benefits through carrying out small-scale research projects.

Voting technology had never been used as an e-learning tool in Adult and Community Learning (ACL) in Bedfordshire. But voting sticks had been used by senior management at conferences to involve the tutors in identifying the goals of the service. They had provoked a great deal of interest. Many tutors saw them as a good way of generating discussion and interaction with their classes and engaging some of the more disengaged learners. One tutor saw potential in using them as a painless, paperless way to carry out first night inductions, while another thought they might be a good way of carrying out initial assessments to gauge the entry skills level of learners at the beginning of a course.

Tutors wanting to take part in this action research project first attended a training session provided by the company supplying the voting sticks. They then supported each other in using the voting sticks in a variety of ways, such as maths quizzes and multiple choice questions for listening comprehensions. One

Evidence sources

Sollenberger, G. & Mortimer, S. (2008), 'Does using voting sticks enhance teaching and learning?' NTRP: http://tinyurl.com/dyfpsa

Betts, S. & Kambouri, M. (2007) 'Using voting technology for assessment'. NRDC: http://tinyurl.com/dbvuzr

project involved using voting sticks for induction to a Skills for Life class. The tutor created a PowerPoint presentation that gave all the information required for induction, and held a quiz at the end of the presentation to check that learners were informed of their rights and responsibilities.

The learners felt that the presentation gave structure to the induction and that the quiz allowed them to answer honestly. All the learners stressed the fun element and said that they liked the fact that the replies were anonymous (although the tutor was able to identify learners). From the tutor's point of view, it provided an easy way to get feedback from all learners, even those who would normally not want to give their opinion in front of the class, and it brought a fun element to a serious part of the course.

Elsewhere, a group of family learning tutors were keen to explore the value of voting technology for formative assessment. Prior to their project, the tutors tended to carry out paper-based assessments, but they had noticed that as soon as they started on the paper-based assessments, their learners' attitudes changed because of their poor literacy skills and previous negative experiences of tests.

Knowing the importance of ongoing assessment and not wanting to disengage their learners, they decided to try out voting sticks on a course where the aim was for parents/carers to learn how they could support their children with schoolwork.

Voting sticks were used at the beginning and end of each session. After each question, the learners were shown the class results on a graph and the correct answer was highlighted. This led to learners chatting, laughing and sometimes asking questions themselves, making the assessment process more relaxed and positive. The instant results, together with the tutors' observations of the learners as they answered the questions, helped the tutors to tailor the course to the learners' needs more easily – for example, when most of them answered a question incorrectly, the tutors revisited the topic.

The team is continuing with the project and evaluating the benefits as they do so. Clearly providers thinking of following suit would need to appraise the potential benefits for their own contexts.

Take action

- Does your organisation have the resources for this type of technology? Could you investigate what's on offer from suppliers and think about ways in which it might be used to enhance teaching and learning, motivation and achievement?

Employability skills
How can we help increase our learners' chances of getting a job?

We're all keen to help our learners become 'work ready'. Yet a survey conducted by the Learning and Skills Network (LSN) found that most employers lamented the lack of employable staff. Nearly 36 per cent of the 1,137 employers surveyed said they had not been able to find school or college leavers with the necessary skills to work in their businesses when recruiting in the last 12 months, and a further 49.6 per cent of employers were only able to do so 'sometimes'.

So what exactly are employers looking for? Knowing the answer may be especially pertinent now that the economic downturn is starting to bite.

Employers said they wanted not only good literacy and numeracy skills but also enthusiasm, commitment and timekeeping. While employers did not expect to be able to recruit a 'finished article' straight from school, half of the employers said that lack of any one of these 'big four' employability skills would prevent them from offering someone a job.

There were also a number of sector- or business-specific skills that employers wanted their employees to develop within the first five years of employment – that is, within the workplace. These included team-working, business awareness, personal presentation and problem-solving. But what was most important to employers was that prospective employees already had the 'big four' employability skills.

There are lots of resources, research and advice available about the effective development of literacy and numeracy – see the articles about teaching phonics and enhancing mathematics teaching for ESOL learners in this issue, for example. Less guidance, however, exists about how we can best develop the 'soft skills' connected with enthusiasm, commitment and timekeeping.

Evidence source

Lanning, J., Martin, R. & Villeneuve-Smith, F. (2008) 'Employability skills examined. Ten key messages from LSN's quest to understand employability skills'. Learning & Skills Network: www.lsneducation.org.uk

The good news is that there is a wide range of projects currently taking place aimed at enhancing the chances of young people gaining employment from which we'll be able to learn. The LSN researchers, along with the UK Commission for Employment and Skills (UKCSE), are researching best practice in the teaching and assessment of employability skills with a view to publishing a guide that will include case study examples.

Meanwhile, you'll find the materials on Key Skills and Skills for Life delivery on the Excellence Gateway website a useful starting point. You may also find it helpful to begin debating with your colleagues some of the questions around developing the personal soft skills that employers desire. What is the role of the personal tutor as opposed to the practitioner in the classroom or workshop? Where are these attributes best embedded in the main programme of study and when is more discrete delivery most appropriate?

The LSN researchers were keen to point out that good and effective teaching (including experiential learning, with learners reflecting on the lessons learned from their experience, then testing that learning in new situations) was the key ingredient for the successful delivery of any set of knowledge or skills. They suggested that this approach was likely to be effective in developing employability skills too.

Take action

- Could you use group work around a 'project' to develop your students' project and time management skills?
- Could you explore the relative roles of the personal tutor and classroom/ workshop practitioner in helping to develop 'soft skills'?

Classroom climate
Why is showing learners that we care about them so important?

"Relations between tutors and students lie at the heart of successful further education … They are crucial to the success of further education in helping disadvantaged, underachieving and excluded people of all ages to develop their often fractured identities as learners." This was the conclusion reached by the Teaching and Learning Research Programme (TLRP), distilled from the findings of 18 major research projects in further education. On the back page, we explore students' views on how further education teachers create effective relationships. Here, we examine the ingredients of good teacher-student relationships by revisiting the work of someone widely recognised as an expert in this area – the psychologist and counsellor Carl Rogers (1902-1987).

Rogers believed the basis of successful relationships for both counselling and teaching is accepting students and showing empathy. Teachers who cared in this way about their learners:

- fully accepted the fear and hesitation of the student as s/he approached a new problem and rejoiced in his/her satisfaction when s/he managed to achieve something
- accepted a student's occasional apathy as well as his/her efforts to achieve major goals
- acknowledged students' personal feelings that both promoted and disturbed learning, such as distrust or even hatred of authority, and lack of self-confidence.

In return, teachers gained their students' respect because they showed they were able to talk to the students at their level. When they felt understood from their own point of view, students felt deeply appreciative. Rogers said: "If any teacher set [him/]herself the task of endeavouring to make one acceptant, empathetic response per day to a student's demonstrated or verbalised feeling, I believe [s]he would discover the potency of this kind of understanding."

In his extensive work with students in distress, Rogers noticed that if he tried to understand them, and trusted them as essentially competent people, then the students began to:

- develop clearer and deeper self-insight
- look for ways to resolve their distress
- solve some of their problems for themselves.

He found that when he started to use the same approach with classes of students, his classrooms became more exciting places of learning; it completely changed the interaction and classroom climate. The students started to tell him their feelings, ask questions and even challenge him at times. Classes like these helped students become more interested

Relations between tutors and students lie at the heart of successful further education

and independent learners.

But we don't just have to take Rogers' word for it. The third edition of his book on the subject, *Freedom to Learn*, presented the findings of a variety of independent research studies, which showed how, when teachers provided the kind of emotionally supportive climate Rogers described, students learned more, enjoyed lessons more and attended more often. They were also more creative and more capable of problem-solving, showed more spontaneity, initiative and independence. Several studies showed that teachers who provided high levels of empathy and care of this level were also characterised by a cluster of other positive behaviours, including:

- more discussion with students
- more use of student ideas in the teachers' interactions with them
- more smiling with students.

In return, there was:

- more student talk
- more student problem-solving
- more asking of questions
- more involvement in learning
- more physical movement
- higher levels of cognition
- greater creativity
- more eye contact with the teacher.

Evidence sources
TLRP: 'Challenge and change in further education': http://tinyurl.com/d544oa

Rogers, C. & Freiberg, J.H. (3rd edition 1994) *Freedom to Learn*. New York: Merrill

Take action

- Could you deliberately try to show empathy more often and more actively, especially to apathetic or challenging students?
- Could you ask someone to observe a session to analyse the number of empathetic responses and their impact on the learning climate?

14–16 year olds in further education
"It's better than school. You get treated with respect"

School-aged learners are enrolled at further education colleges in the belief that it will give them a different and potentially more successful experience, both in terms of attainment and progression. It is usually assumed that in contrast to the academic programmes followed at school, the courses they follow will be 'practical' as they are closely linked to an occupational area such as hairdressing, engineering or construction. In reality, vocational education requires theory-based study as well as practical skills. What, then, do young people make of the experience?

According to a study carried out with 130 Year 10 and 11 learners from 13 secondary schools, all of whom spent part of the week (usually half or one day) on a vocational course at a college, the biggest difference they noticed was the kind of relationship they had with staff: "It's better than school. You get treated with respect." "It makes you feel grown up."

They felt a greater sense of trust – "You are allowed to use welding tools on your own … like an adult" – and greater freedom in making choices, such as who to sit with, or being able to talk as long as it wasn't disruptive. They appreciated the tone of communication of further education staff – "At school, if you have done something wrong they shout at you – at college you just have a little chat to sort it out" – and their humour: "You can have a laugh with them".

The effect of relating to the 14–16 year old learners in the same way as adults was, in many cases, greater confidence, self-worth and therefore motivation to learn. So, the vocational learning experienced by these learners was not only effective in the sense of equipping them with the skills for a job, but also in bringing about affective changes, such as personal growth and confidence.

While the different relationships the 14–16 year olds experienced appeared to be the bedrock, the different approach taken by further education tutors to teaching and learning mattered too. The young people spoke of feeling less pressure: being in smaller groups, being able to pace themselves in a task and being able to move around was important to them.

Other positive aspects of the further education approach to teaching and learning included group work, achievable tasks, one-to-one support, tutors making sure learners understood the task and access to a wider range of equipment. Those who had struggled in school to control their behaviour responded to efforts to relate to them as responsible individuals and to talk through their difficulties.

The feedback wasn't all good, of course. Some of the young people had believed that there would be no 'theory' and were disappointed to find they still had to do writing, although some tolerated it as necessary.

Some didn't like the college environment – rooms were sometimes seen as cold and dirty. A small minority found the college experience no better, or worse, than school, complaining of harsh tutors, boring and repetitive work and an unwelcoming environment.

Evidence source
Lumby, J. (2007), '14 to 16 year olds in further education colleges: lessons for learning and leadership'. *Journal of Vocational Education & Training* 59 (1) pp.1–18

INSIDE TRACK

Resources
Research tasters, specially designed to support further education practitioners in carrying out their own evidence-informed enquiries into aspects of their professional practice, are available from: www.tlrp.org/ls

Case studies
The National Centre for Excellence in the Teaching of Mathematics made the first round of grants available for action research projects in the further education sector in 2007. You can download reports of these projects from: www.ncetm.org.uk

Advice
You'll find helpful advice and downloadable resources for conducting practitioner research on the Becta website: http://partners.becta.org.uk You'll also find case studies related to the ICT test bed evaluation carried out in all phases, including further education.

HAVE YOUR SAY We'd love to know your views on the articles we have produced for this issue and how they have informed your practice. Let us know by emailing us at: **inside.evidence@qia.org.uk**