

## CHAPTER 1

# THE PLACE OF RESEARCH WITHIN THE CLASSROOM AND SCHOOL

By the conclusion of this chapter it is anticipated that you will have considered and be able to:

- understand the role of research to inform and improve practice;
- understand the importance of exploring potential options before acting and evaluating the impact of initiatives;
- appreciate the value of educational research to the school/college practitioner.

This chapter provides an examination of the need, for those working in schools and colleges, to develop and utilise research skills for their own personal professional development and organisational improvement. While this chapter will not tell you *what to do* or *how to do it* (later chapters will

do that), it will provide you with an appreciation, hopefully an understanding, of *why*. Developing an understanding of why you are doing something (indeed why there is a need for you to do something) will allow you to gain much more from the activity and give you much more control and understanding over the decisions that you will face with regard to how you will carry out your research.

By engaging with new ideas and research findings to develop new practices and evaluate curriculum change, educational practitioners (such as yourself) will be better placed to formalise and enhance personal and organisational reflective practice. Excellent teachers improve their effectiveness, that is how well the learners are learning, by asking the right questions and reflecting on the responses, in light of what they have previously experienced and read, before deciding upon a specific course of action. In many learning environments (classrooms) you may only have a fraction of a second to cycle through these processes. In order to become 'effective', in this sense, it is appropriate to deconstruct these processes, slow them down so that the different elements can be appreciated and valued and practised. In order to be able to scale down to the micro-decisions made constantly during a working day, it is appropriate to examine the processes on a much grander scale, to ask 'bigger' questions and formally gather evidence to analyse in order to draw robust conclusions – and make the 'right' decisions.

There is an increasing number of pressures on those working in the education profession (and those in training to join!) to become more 'research active' in order to inform and develop their own practice. Teaching schools (TSs), as one of their key responsibilities (DfE, 2012) are required to lead 'research and development' within the profession. Consequently it must be seen as highly desirable that new entrants to the profession begin their careers with the skills and abilities to be capable and confident of using research skills to improve their own performance and also be able, with experience, to add to the body of knowledge within their profession.

## The move toward a 'masters-level' profession

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It would be reasonable to suggest that in England from the perspective of early 2013 the qualifications expected of those entering the teaching profession are a little 'confused'. In the state-funded sector, pre-service qualifications are increasingly being delivered and assessed at postgraduate (that is to say masters) level, with post-degree level qualifications for entry to the teaching profession changing to accommodate this. However, certain sections of the state-funded provision, specifically 'free schools' and, potentially, academies, are allowed to employ as teachers individuals who have not demonstrated that they have met the professional standards required as a prerequisite for employment in local authority (LA) maintained schools.

In the early years of the twenty-first century, the bodies in England responsible for funding and supporting the quality of continuing professional development (CPD) provision for teachers, the Training and Development Agency *for schools* (TDA) and the General Teaching Council *for England* (GTC), both led the profession towards masters level in service professional development. The TDA, through its subsidisation of masters-level study as part of the PPD (postgraduate professional development) initiative, attempted to ensure that school teachers develop the skills to enable them to become more rigorous in the way that they perceive, reflect upon and analyse the impact of educational initiatives that they are involved in. Although significant funding was made available (TDA, 2007) and tangible professional and financial benefits were shown to accrue to participants, the uptake was relatively small. The GTC approach, through the Teacher Learning Academy (TLA) took a rather more direct approach. In order to progress up the pay spine teachers had to demonstrate their impact within (and beyond!) their school. Level 3 within the TLA criteria (Lord et al., 2009) equated to masters-level study in which teachers were expected to apply appropriately rigorous approaches to gathering and analysing evidence of their 'impact'. Within current proposals (Coates, 2011) the ability to self-critique and robustly analyse learning and the learning environment are implicit within the expectations for 'Master Teacher Standard'.

The National College has well a established professional qualification for school leaders, NPQH (National Professional Qualification for Headship), which has now reached such blanket coverage for prospective school leaders that additional qualifications (such as educational masters) are required to enable employers to distinguish more effectively between the candidates. The qualification for departmental or subject leaders, Leading from the Middle (LftM), has also reached a point where holders of the award are expected to convert it into 'academic currency' through gaining accreditation within a masters qualification. Pay and professional progression are increasingly being employed to encourage teachers to develop additional reflective and analytical skills. Within the maintained sector, teaching is increasingly moving away from being a graduate profession to becoming a *masters* profession.

With the loss of funding due to the economic turndown and change of government policy since 2010, coupled with the political drive to transfer the responsibility for initial and continuing training and development of the teaching profession from higher education to schools there is a change in the underlying nature of the provision available.

In higher education institutions (HEIs) the role of research activity is complicated by the academic expectations of the sector. While it is acknowledged, as Hattie and Marsh suggest:

*Universities need to set as a mission goal the improvement of the nexus between research and teaching . . . The aim is to increase the circumstances in which teaching and research have occasion to meet.* (1996: 533)

The precise nature and focus of this research is less clear. Academics are expected to possess subject expertise within a field of study and to develop this expertise through further study and research, in doing so extending the boundaries of the field and enhancing knowledge within the subject. This 'new' knowledge will then be used to inform the content of their teaching. However, to be an effective teacher of their subject they also need to be aware of, and be able to develop further, the effectiveness of their knowledge/skills transfer to their students. University academics are expected to both be effective researchers within their subject and effective teachers of their subject. Until the establishment of the Institute for Learning and Teaching in Higher Education the focus for training in higher education was strongly biased towards the research requirements. Currently the Higher Education Academy (HEA) offers accreditation for courses (HEA, 2012) which support the development of the student learning experience – a pedagogic rather than subject focus. This distinction is crucial when focusing upon the precise nature of research which underpins personal professional development as a teacher (in any phase of education).

Outstanding schools (as defined by Ofsted inspection outcomes), since 2012 have had the option to apply to become 'teaching schools', either individually or in clusters, to support and develop the quality of the profession through the provision of Initial Teacher Training (ITT) and CPD courses, coaching and consultancy. While many TSs have long established links with HEIs for both provision of professional training and research activity, others are still in various stages of development. Through the National College there are some opportunities for sharing practice and research activity within TSs, but other professional routes for dissemination, such as subject associations, also need to be acknowledged.

## Towards research informed practice

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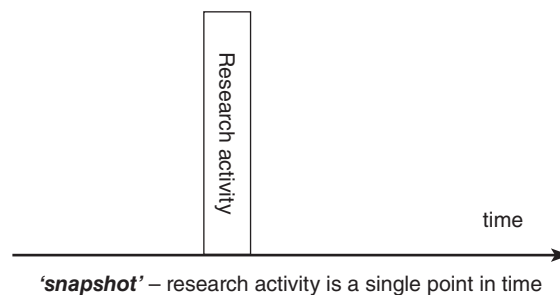
Over the past few decades 'research evidence' has increasingly been used by policy-makers, nationally and locally, to encourage particular ways of working within education. The educational agenda, from the nature and construction of the curriculum through approaches to pedagogy to the training and deployment of professionals working in education, is justified and driven by 'best practice' as defined by local, national and international research. Systematic inquiry is designed to unveil the 'best' ways of achieving desired outcomes. Research methodology (as opposed to the approach) focuses upon the identification of sources of evidence and how such evidence might be gathered and is explored in detail in Section 2 of this book, where issues of *qualitative* and *quantitative* evidence will also be addressed.

The literature on forms of education research is rich in terminology (jargon) which attempts to explain the perspective from which the

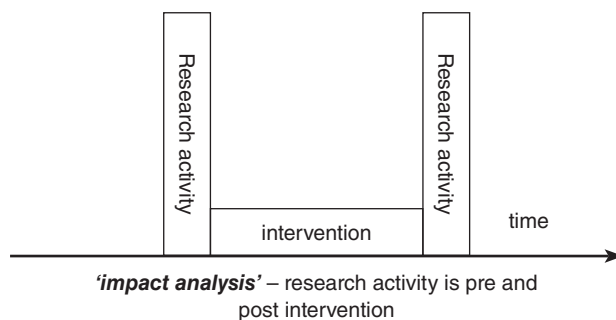
research is performed (*paradigms* – the research model). In an attempt to obtain clarity and establish lines of demarcation, approaches which would otherwise be seen as complementary are treated almost as incompatible. *Positivism*, which takes an objective perspective of evidence, focusing on the measurement of outcomes in order to predict and identify patterns (Cohen et al., 2007), is made distinct from *interpretive* approaches, which concentrate on the interpretation of evidence and bringing meaning. On the whole, research evidence only becomes ‘useful’ (to individual schools, departments or teachers) when findings are explained, interpreted and contextualised. At a ‘research-aware’ level, this interpretation may be overlaid by the political perspectives of the researcher and the way that they view society and social interaction (e.g. feminist and Marxist research). This ‘political perspective’ often provides a guide as to how the researcher views and constructs ‘knowledge’ and is referred to as the *epistemology*.

This book is firmly constructed to meet the needs of the educational professional who is employing research processes and skills as a basis for ‘improvement’, rather than for researchers working in the field of education. For this reason it is at this early stage three basic models of research activity will be presented and ‘visualised’ as a means of providing ‘anchors’ by which you can make connections between the research activity you need to perform and the research processes which will be revealed and explored within this book.

The first is about taking a ‘snapshot’ of reality. In practical terms this could be the act of constructing a case study of an individual child’s (or teacher’s or class’s or school’s) needs; examining the range of options available prior to making an intervention; and reviewing the current state of resource availability or perceptions of a particular issue – the key element being that it is focused on a particular point or period in time. Generally the evidence is gathered and analysed in preparation for a decision upon a course of action to take. Visually it might be useful to present it as shown in Figure 1.1.



**Figure 1.1** Snapshot

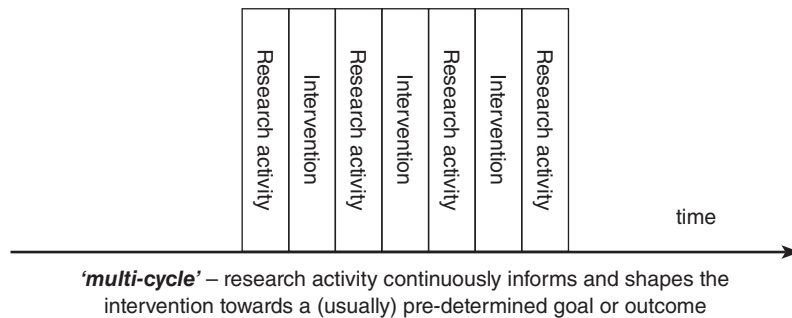


**Figure 1.2** Single-cycle research

Alternatively, the research activity could be used to evaluate or judge the effectiveness of an intervention – an *impact analysis*: where evidence is gathered pre- and post-intervention in order to consider the effect (impact) that the intervention has had. Clearly such a research activity takes place over time, but the timescale may vary considerably from intervention to intervention. It may be as short as part of a lesson or as long as a year or beyond. This model is designed around the need to establish how effective a particular resource, pedagogic approach, policy, strategy, etc. has been as applied to an individual situation, child, group/class/cohort of children or teachers/classroom staff or even whole school (for example in attempting to evaluate the effect of a new whole-school behaviour management policy). It can be pictured as in Figure 1.2.

The final model to keep in mind is a multi-cycle approach where the research and the intervention almost constantly inform one another. Here the researcher will be working with a particular outcome in mind using the analysis of the evidence being gathered to inform and flex the intervention towards achieving the goal. For example, the outcome might be for a group of children to learn a particular skill. If the *'impact analysis'* model were to be used, a strategy would be chosen and followed through – the focus being on the intervention rather than the outcome (which is just the means of measuring the effectiveness of the intervention). Using the *'multi-cycle'* model, each cycle is designed to get progressively closer to the desired outcome, which is achieved through changes to the intervention informed by the research process – the focus is the outcome, the intervention(s) is the means of achieving it. This is more difficult to present visually – it could be seen as the research activity and intervention being entwined or an open-ended ongoing process (although it should be noted that the number of cycles might be fixed – but not four) determined purely in terms of achievement of the *'goals'*.

Although this final model, action research, will be explored in full detail in Chapter 10, it is worth pausing over it at this point so that its similarities to and differences from the *'normal teaching processes'* can be considered.



**Figure 1.3** Multi-cycle research

It is all too easy for the experienced teacher to perceive action research with an unwarranted over-familiarity due to misplaced connections made to reflective practice.

Reflective practice, which can lead into an action research approach, may be described as *phenomenological*, in that it values the importance of the study of phenomena through direct experience, which is then interpreted and used as the basis for future understanding or modified actions. Smyth (1989) succinctly presents it as a four-stage model:

1. *Description* – an evidenced commentary of the current situation
2. *Information* – interpreting the evidence for meaning
3. *Confrontation* – explaining the evidence and the progression to this point
4. *Reconstruction* – suggesting possible ways of progressing from this point

For the teacher, there are clear parallels between this model and the reflective teacher model inherent in current school-based education. As a paradigm, it is worthy of further consideration. It does not preclude the adoption of positivist or interpretive approaches – indeed it is enriched by the inclusion, and it also offers some degree of connectivity to approaches which teachers have some familiarity with.

If we accept that research *does* inform practice in the field of education, a focus on the technologies underpinning effective learning and teaching might lead to the reasonable assumption that there will be an emphasis on action research, the implication being that research will inform practice through an iterative process based upon a developing synthesis of theory and practice. In the longer term this may well be an appropriate position to take, but it does imply that all research activity concerning change or improvement must be dynamic in nature and implementation. As teachers we can appreciate that assessment can be for different purposes, but the same is equally valid of research. Assessment *for* learning (formative, diagnostic) can

immediately be seen as being part of a continuous process whereas assessment *of* learning (summative) relates to a specific point within the learning process (and not necessarily an end point). Equally, it would be entirely valid to perform a research activity at any given point within a 'learning' or 'development cycle' in order to, perhaps, determine the most appropriate course of action from a range of alternatives or to evaluate the impact of an initiative against an appropriate set of success criteria. In each case the research activity is being used at some level to inform a potential future course of action.

## From teacher to researcher

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While teacher qualification relies upon meeting government determined professional standards, Taber's (2007) 'weak' model of the teaching profession, research proficiency provides it with depth, robustness and a sense of potential future progress. To support this, research should be viewed very much as a process-driven activity. While the outcomes of individual research studies are important and can have a significant impact on future actions, the process provides a tool that can become an essential element of a teacher's long-term development aspirations. It is perhaps helpful to consider a very simplistic comparison of the teaching and researching processes (Table 1.1). When contemplating a change it is always worth identifying the similarities and differences between what you are already doing and what you need to be doing – a concept which lies at the heart of formative assessment (assessment for learning – AFL).

Because 'research' is a very diverse collection of approaches and frameworks, it is important to offer a restricted perspective of the nature of research to achieve some level of 'manageability', particularly with the novice researcher in mind.

While the model in Table 1.1 does not provide exact parallels between the teaching and research processes, there is sufficient connectivity to see it as a starting point for development. Equally, it must be acknowledged that there is not an exact link to Smyth, as Smyth's model relates to a specific point in an otherwise dynamic process – the reflective interlude between periods of activity. Indeed, the teaching column is open to question in that it suggests a single learning cycle, but perhaps this is realistic if it is assumed that a 'lesson' is made up of a series of learning cycles, some focusing on individuals, some on groups and others on the class as a whole, which is perhaps more representative of the complexities of a lesson format.

Phase 1 holds the key to success: if the lesson (or the research) is ill-founded, the remainder of the process will either be inefficient or flawed. The social constructivist view of teaching holds that we first establish the existing understanding and skills levels of the learners before constructing



**Table 1.1** A simplistic comparison of the teaching and researching processes

Phase	Teaching	Researching
1	Pre-assess the children to ensure that the 'starting point' for learning is revealed and review the National Curriculum documents to clarify expected learning. Establish learning objectives.	Perform a contextual analysis to clarify the issues that the study will focus on and review any relevant national documentation to reveal the wider background and influential factors. Establish key research questions. <i>What am I trying to find out?</i>
2	Read subject material (schemes, subject association journals, ...) to collect ideas on how the concepts and skills might be taught and the possible approaches to teaching and learning.	Read the literature on relevant theories to establish a wider conceptual perspective for the study and published empirical research to review potential outcomes and possible methodologies. <i>What do I already know?</i>
3	Use contextual knowledge of the group to be taught along with reading of pedagogic texts to establish and clarify the teaching and learning strategies to be employed to meet the learning objectives. Construct the means of assessing learning and record the assessment outcomes.	Use knowledge of the context and research population along with reading from the research methodology literature to establish and clarify the research methodologies to be employed to gather evidence to address the research questions. Construct the research tools. <i>How can I find out what I need to know?</i>
4	Evaluate the outcomes of the learning against the expectations of the learning objectives and evaluate the pedagogic qualities of the teaching.	Analyse the outcomes of the research against the key research questions using the theoretical/ empirical expectations from the literature. <i>What have I found out and what does it mean?</i>
5	Draw conclusions as to the learning that has taken place and the effectiveness of the teaching. Make recommendations for future teaching and learning.	Draw conclusions from the analysis of the research findings. Make recommendations for future action. <i>So what and what should I do about it?</i>

the learning opportunity. If the learning is based upon the teacher's assumptions of the learners there is likely to be a degree of mismatch, but as time and resources are clearly a factor in this equation, there needs to be an appropriate balance between assumption and assessment. Similarly, while the research needs to establish a clear focus for the research effort it should not attempt to pre-empt the research outcomes. In both cases, reading around the likely issues will enable the teacher/researcher to identify the key factors that need to be addressed – either in terms of the learning or research – so that clear learning or research objectives can be established.

While the wider reading indicated in phase 2 may frequently be sidelined by the experienced teacher, it should be regarded as an essential requirement for both the novice teacher and the novice researcher. For the novice the learning inherent in the process is just as important, in the long term, as any outcomes that may arise.

The third phase focuses on the question 'how will I gather evidence?' – the teacher's question of 'how will I know what they have learnt?' which

translates as ‘how will I know that I’ve answered my research questions?’ for the researcher. In both cases, phase 4 represents a matching of expectations against outcomes using the evidence that is available and the final phase uses this as a basis for future action.

Although it is helpful and possibly reassuring to realise that there are similarities in the process which allow for the possibility of a more successful transfer of skills from one context to the other, it is also important to recognise the differences. It would be all too easy for the experienced educator to fall into the trap of treating research activity with the contempt of perceived familiarity. Because all teachers are individualist in their approaches to teaching and learning (no two lessons, however close the planning, will ever be taught identically) these differences need to be acknowledged and highlighted within the learning processes.

## Individualised learning

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While learning frequently takes place within a group experience (a class) for reasons of economic as well as educational efficiency, this form of collaboration, in addition to the motivational impact, also provides important opportunities to share, trial, test and demonstrate individual learning. It is important to note that this shared learning experience does not need to mean a shared content – indeed there is often more to be learnt from the experience when the group does have slightly different learning needs and interests.

A strength of personal professional development, as an issues-driven research focus, is that it allows for (if not encourages) a collaborative approach to discussing and sharing understanding of the underlying factors. If, for example, ‘poor classroom behaviour’ is perceived as being a generic issue for the organisation or the group of teachers who are working together which needs to be addressed, the views of teachers should be aired to consider the extent and possible factors impacting on the unwanted behaviour. It then allows different teachers to explore the possible impact of these various factors and contribute to a more informed debate with a view to approaching this through more detailed and differentiated (by context or precise focus) research. As the research activity should be based upon individual and contextual needs, duplication of effort can be avoided with the potential to learn from each other. Even in cases where the conceptual focus (for example, the use of the same behaviour strategy) is the same, the uniqueness of each learning situation (age of class, learning environment or subject area) will individualise the learning experience.

Even without a clear ‘personal need’, organisational and departmental development plans offer opportunities to identify issues which can be used to stimulate both personal and organisational growth. It is also worth noting that this also offers a wider audience from which to receive feedback and

support. It is always worth mapping personal development plans and aspirations against the needs of the organisation in order to find areas of joint interest and compatibility which should lead to greater opportunity and access to valuable resources (such as time!).

## Base-lining and evaluating impact

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Education, due in no small part to the wealth of research evidence driving developments, is rich in new initiatives. All too frequently the 'new' simply overlays existing structures, systems and approaches with only passing regard to the overall compatibility and coherence to those impacted upon. The adoption of new ideas is most effective when a clear 'starting point' is identified to allow a more harmonious coexistence of the current with the new – a meshing rather than a grating. To be confident about accurately identifying the current disposition of the situation (a classroom, subject, department, school, ...), self-evaluation is an essential first step. If you have a destination in mind (the 'new initiative') the journey will be much more successful if you have a clear idea of where you are starting from (again, the parallels with the learning/teaching process should be immediately apparent).

Most incidences of 'change' in educational settings have three distinct opportunities for research activity:

- Where are we? (static base-line assessment – *snapshot*)
- Are we getting there? (dynamic tracking against clear success criteria – *multi-cycle*)
- Are we there yet? (dynamic – completion of tracking or static re-establishing of a 'set' position – *impact analysis*)

For a number of years, schools in England have been driven by school improvement plans (SIPs) policed by centralised inspection regimes (Ofsted) which call on schools to clarify their strengths, weaknesses and goals through self-evaluation forms (SEFs), which are then checked through direct observation. Increasingly the process is driven by a greater reliance on evidence generated within the school with comparisons to wider collations of 'comparative data'. It is the nature of this evidence base and the interpretations that can be placed upon it that offer significant opportunities for personal and organisational development.

For all those operating as teachers within educational settings, all initial training processes are constructed around the concept of self-reflection and personal responsibility for professional development through some form of mentoring or coaching process. But whether the focus for development is on the organisation of the individual, research activity is at the heart of the

process. For this reason alone it can be appreciated that the value of developing educators in the skills of researchers is not a purely academic exercise to give credibility to training programmes, but rather an essential skill necessary for the future development of the education sector and the professionalism of those working in it. While it is acknowledged that the delivery of effective learning may be placed into the competent hands of education technicians such as high-level teaching assistants, coaches or trainers, teachers are increasingly being required to rely upon skills developed through contextually focused research activity in order to accurately assess a situation, choose an appropriate course of action and evaluate the impact. These skills, which can be honed in the learning environment, are becoming an essential for those in and aspiring to educational leadership.

Essentially making changes to the learning environment or the wider organisation requires a significant investment in resources, time in particular. So before doing anything particularly drastic it is worthwhile establishing a precise need to ensure that any initiative that may be implemented is appropriate to the need, addresses perceived weaknesses and builds upon strengths and areas of confidence. A well directed research activity should establish that what is thought to be the problem does not, in reality, turn out to be simply a symptom of a bigger issue.

Frequently organisations have little control over the initiatives that they are required to adopt and fail to invest time in gaining an understanding. This lack of knowledge can lead to a superficiality in the approach and result in poorly constructed implementation. By engaging with the research underpinning the initiative, ownership can be taken leading to greater personal and organisational investment. This can be further supported by constructing research-informed tools for tracking the implementation process.

## **Learning teacher, learning school, learning organisation**

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The concept of the learning organisation is not new but is quite fitting for the education sector, being, as it is, in the 'business' of education. All those working in the education sector should be focused on the learning of their students (admittedly, there may be a dual focus in the case of universities) and to best achieve and maintain this emphasis, everybody within those organisations must continuously focus on their own learning. The successful adaptation to change and uncertainty, which schools and colleges strive for, is most likely to occur when sufficient and appropriate learning takes place throughout the organisation.

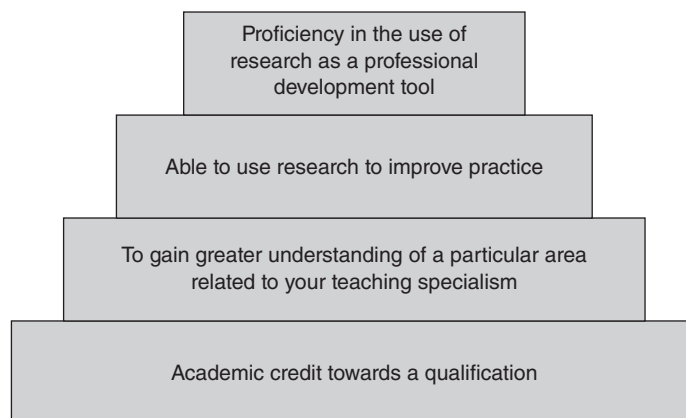
Although research activity can only ever claim to be part of a range of learning opportunities, its impact can be significant. It can be used not only to identify specific needs in the self and others but also to explore deficiencies and untapped potentials. Professionally focused

inputs (such as ‘tricks for teachers’ forms of CPD) can be embedded and their longer-term impact on educational quality evaluated. Links between processes, skills and strategies applied to the learning environment and the wider organisational needs can be identified and developed (e.g. linking strategies for motivating staff and students) to offer a more coherent approach.

Above all else, research activity makes you think more deeply about what you are doing, to evaluate impact and applicability and to consider alternative options. By encouraging a more healthily sceptical view of innovation it is possible to develop within the professional staff a more enduring and robust capability for change.

## Learning check

An important question to ask is – ‘what is your motivation for developing your educational research skills?’. As we see with our own learners, the more that they can perceive a purpose for the learning and can appreciate its applicability to their wider needs, the more highly motivated they will be. While there will always be some element of ‘learn it for the test’ within education, the superficiality of this approach and the transitory nature of that learning in our memory is often a woeful waste of effort in the longer term. Those who learn and apply research skills as part of their initial professional development for the education profession will perhaps need to focus on embedding and developing the core technical skills in the early part of their career and may not perceive research activity as a crucial aspect of their own early progression.



**Figure 1.4** Level of engagement with research activity

Figure 1.4 offers a hierarchal means of viewing your own engagement with the importance and applicability of the research process. There is likely to be a base line in terms of the completion of academic credit, but this really needs to be perceived more as a reward or acknowledgement of competence than a goal in itself. At the lowest level of effective engagement it may simply be considered as a tool to access a more secure understanding of a particular aspect of teaching or learning (or educational management) which is relevant and specific to your individual needs at this point in time.

Using research to improve practice can be viewed in two ways: firstly in terms of being able to engage constructively with published research through having sufficient understanding of the process to be able to critically review findings; secondly in terms of being research active and being competent in the use of a narrow range of skills which enable you to track your own progress and development and challenge yourself through the incorporation of a wider range of ideas gained through reading. In effect, you become a fully committed reflective practitioner through the use of action research methodologies.

Ideally the value of research as a tool for learning will be such that you will consider it as a primary choice and a means of driving and supporting your own personal development and the development of your organisation.

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