Evaluating Accomplished Teaching

**Report of a Pilot Study into Means of Investigating the Impact of Accomplished
Teaching on Pupils' Learning in the Context of the
Chartered Teacher Initiative in Scotland**

'enquiring professionals engaged dialogically and critically with their practice'

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gtc SCOTLAND

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List of Abbreviations

ASN	Additional Support Needs
AST	Advanced Skills Teacher
CT	Chartered Teacher
FME	Free Meal Entitlement
ESRC	Economic and Social Research Council
GTCS	General Teaching Council Scotland
ICT	Information & Communication Technology
NB	National Board
MEd	Master of Education
MP	Major Project
PI	Principal Investigator
PT	Principal Teacher
SCT	Standard for Chartered Teacher
SEED	Scottish Executive Education Department
SMT	School Management Team
TDA	Teacher Development Agency

Executive Summary

This report provides findings and recommendations from a pilot study into means of investigating the impact of accomplished teaching on pupils' learning in the context of the Chartered Teacher initiative in Scotland. Broadly the study sought to explore the following questions:

1. How more rigorous and systematic research might be undertaken to assess the impact of accomplished teaching on pupils' learning by investigating how the effects of accomplished teaching might best be evidenced.

2. How the capability of those involved in implementing the initiative could be improved to develop more effective means of promoting the professional learning of teachers seeking to become highly accomplished.

The research was commissioned by GTC Scotland and the Scottish Government based on a proposal from the research team, following on from an earlier study: *Evaluating the Impact of Chartered Teacher in Scotland: the views of Chartered Teachers,* completed in 2007 (McMahon, Reeves, *et al.* 2007).

The study reported here was undertaken between June 2009 and March 2010. As part of developing capability a distinctive feature of the project was the engagement of two Chartered Teachers as CT Research Fellows. They were recruited through an application and interview process and were seconded from their teaching posts to facilitate their participation as members of the research and development team.

The team explored the conception of accomplished teachers' impact on pupils' learning at three levels:

a) system level (macro) – effects on pupils' learning attributable to the influence of Chartered Teachers as a segment of the teaching population and therefore to the CT initiative

b) school or organisational level (meso) – impact on learning as an outcome of the influence Chartered Teachers are able to exert on pupils and colleagues and

c) classroom level (micro) – impact on learning as part of the interactive process of teaching and learning.

Summary of Findings

The study had four main components and the main findings from each are listed here.

Literature Study

1. Studies of the impact of accomplished teaching on pupils' learning are largely limited to the United States and suggest the use of longitudinal studies using matched pair designs and value-added models as the most robust means of investigation.
2. The international literature suggests that the distribution of accomplished teachers may be significant and that a high proportion of teachers with advanced certification is located in schools with pupils from backgrounds with high socio-economic status.
3. The literature also suggests that the effects of context on practice are important e.g. school culture, policy and regulatory frameworks.
4. Involvement in gaining certification contributes to teacher learning with gains in relation to the quality of reflection, use of inquiry-oriented instruction, implementation of new strategies, assessment practices and understanding of pupils. However there was weak evidence from the literature of the promotion of higher levels of cognition.
5. The capacity of expert teachers to pay attention to classroom phenomena is high. Expert teachers use principles in analysing classroom phenomena as a means of getting beneath their surface features. This makes for more efficient and effective problem framing and solving as compared with novices. Placing value on being aware of pupils' prior knowledge and understanding is a characteristic of expert teachers.

Content analysis of Major Project (MP) submissions on Chartered Teacher (CT)
programmes

6. All the MP reports provided a rationale for action based upon information the authors had gathered from a variety of sources about their area of interest.

7. By their nature these reports could not provide a cumulative basis for investigating impact on pupils' learning.

8. Most reports were of the outcomes of teaching interventions, the majority of which were based upon the introduction and evaluation of a particular teaching 'pack'. Many of these were based on constructivist approaches to teaching e.g. assessment is for learning. The use of ICT for teaching purposes was also a popular topic.

9. The nature and content of the reports were clearly influenced by the CT programme providers. Eighteen out of the nineteen reports were accounts of some form of action research or practitioner enquiry.

10. Collaborative projects were largely confined to the MP reports from a CT programme which required teachers to demonstrate an engagement in collaborative enquiry.

11. The MP reports generally contained little comment on their authors' personal professional development or on the Standard for Chartered Teacher. There was no direct reference in the texts to what the authors believed accomplished teaching to be.

12. The evidence provided to demonstrate impact on pupils' learning was largely the outcome of the use of pre/post test strategies to assess changes in pupils' knowledge and attitudes – there was relatively little evidence advanced in relation to growth in skills.

13. In the MP reports little direct link was made between teaching and learning as part of an on-going process, most attention being paid to inputs and outputs.

14. There was evidence that the nature of teachers' enquiries was narrowed by an emphasis on "operationalism" and by conceptions of research which

removed an examination of teaching and the teacher from the accounts given in the MP reports.

Focus Group Discussions with Chartered Teachers

15. The focus groups emphasised the importance of responsiveness to individual pupils, to what they know and how they feel. Feedback from pupils was more important to the participants than it had been before they undertook the programme. They paid more attention to what pupils said and did in the course of interaction in the classroom. Engagement in the Chartered Teacher programme had changed the way they interacted with pupils. They had a more personalised approach which they felt was characteristic of accomplished teachers.

16. The group members' professional confidence had improved which had changed their attitudes, particularly with regard to classroom control. They said that becoming more open to pupil feedback enabled them to allow pupils a more active role in their classes. It has also led participants to adopt a more inclusive approach in their teaching through enabling them to differentiate their teaching responses according to pupils' learning needs.

17. Some people described becoming more accurate in the didactic elements of their teaching. This is because they are more actively seeking to know what and how their pupils are thinking and therefore they can adapt their teaching to build on the basis of pupils' prior knowledge and understanding.

18. Experiencing a wider influence in schools appeared to vary considerably, with participants having very different experiences according to the school or schools they were working in. Some participants felt they were fully engaged in leading learning in their schools whereas others still felt there was little scope for activism. Some headteachers were now making

reference to the SNCT's Code of Practice on the role of Chartered Teachers (SNCT, 2009).

School Case Studies

19. CTs felt that identification as an accomplished teacher through certification was problematic because teachers who choose not to seek certification may be as accomplished as those who do.

20. CTs' definitions of an accomplished teacher characterised her or him as: engaged with individual pupils, innovative, open-minded, committed, enthusiastic, supportive, collaborative and reflective.

21. There was evidence of CTs' engagement in a substantial level of collaboration and engagement with colleagues and in providing a lead in curricular development but, within the limits of the pilot, there was no means of testing whether this represented substantively different practice from that of other teachers matched for age/experience.

22. The nature of their relations with pupils were identified by CTs as crucial to becoming an accomplished teacher with a focus on knowing individuals and supporting their learning.

23. Importance was placed by CTs on pupil attainment and progression including demonstrating success in national assessments.

24. In one school, having several CTs was seen by the headteacher as a means of raising the level of professional discussion and thinking about how to empower children in their learning and of creating and maintaining high quality teaching.

On the basis of the evidence drawn from a variety of sources we have made a number of recommendations with regard to future research and development to identify and improve

the impact of accomplished teaching on pupils' learning in the context of the Chartered Teacher initiative. These are discussed in Section 7.4 of the report but summarised here. Recommendations include:

- that a study be undertaken to identify approaches and tools that can be used by experienced teachers as a basis for enhancing their impact on pupils' learning and developing their expertise and effectiveness as classroom practitioners

- the review of CT programmes with particular regard to:
  - what it means to develop classroom practice which is informed by evidence
  - the weight that should be given to the personal professional development of Chartered Teachers as classroom practitioners and
  - how Chartered Teachers may be supported to undertake their wider role as change agents and leaders of learning.

- an international study of accomplished teachers based on partnership with stakeholders, allowing for comparison across datasets and facilitating analysis, from an international perspective, of the range of personal and professional traits of teachers who engage in schemes that seek to recognise and certificate accomplishment in teaching. It should be noted that the Teacher Development Agency (TDA) has recently commissioned an Evaluation of Masters in Teaching and Learning (MTL) requiring a longitudinal study (5 years) analysing stakeholder perceptions of MTL, the implementation of the qualification and the impact of the qualification on stakeholders' practices, behaviours and outcomes.

The study has also added to the conceptual understanding of Chartered Teacher as a model of accomplished teaching by differentiating the levels at which issues of impact need to be considered and focusing greater attention on the more immediate effects of the interactions between teachers and pupils. From the research evidence, a useful model for further examination and development emerges of Chartered Teachers as *'enquiring*

professionals engaged dialogically and critically with their practice' on the basis of a more direct and immediate concern with impact on pupils' learning as a feature of the dynamics of classroom interaction.

1. Introduction

1.1.   In March 2010 the number of Chartered Teachers in Scotland reached 1010. Since 2003, when the award of Chartered Teacher status became available to teachers in Scotland, it has become embedded within the teaching profession as a form of professional development, recognition and reward for accomplished teaching. In 2009, the Association of Chartered Teachers Scotland was established by Chartered Teachers to represent their interests and the association held its first conference in February 2010. The publication of the Revised Standard for Chartered Teacher in August 2009 (GTCS, 2009) and a new *Code of Practice on the Role of Chartered Teachers* (SNCT, 2009) in September 2009 highlighted the growing significance of Chartered Teacher status in the profession. These documents also indicated some of the definitional problems underlying the pilot study in that the meaning, and hence the development and assessment of accomplishment in teaching within Scottish education is continuing to evolve in the process of implementation, a process to which this report seeks to make a contribution.

1.2.   As more teachers begin to access Chartered Teacher programmes of study and the constituency of Chartered Teachers grows, evaluating the impact of this initiative from a range of perspectives is important. The research base for this is small but growing and the purpose of this study was to build on research undertaken in 2007 to look at the ways in which Chartered Teachers were influencing learning and teaching. The Chartered Teacher initiative has generated much interest internationally and it is important to be able to situate and compare Chartered Teacher alongside other models of accomplished teaching: for example, National Board Certification in the USA, Advanced Skills Teachers in England and Australia and the model of Chartered Teacher recently piloted in Wales. This study has trialled ways of investigating the impact of the work of Chartered Teachers in order to inform future studies relating to accomplished teaching and to indicate how approaches to improving current practice might be developed.

1.3.   Evaluating impact in relation to learning and teaching is both complex and problematic. It may be measured through hard data on the basis of pupil outcomes but equally important are the relational dimensions of learning and teaching in classes, schools and the wider educational context. These affect pupils' learning in a variety of ways that are not always easily measured or reported. In trying to consider impact in the context of the Chartered Teacher initiative in this report the analysis has been framed so that impact is explored at a number of levels within the education system: macro, meso and micro. This has been done in order to try to refine the concept of impact on pupils' learning as a basis for developing our understanding of accomplishment in teaching.

2.   Background and context

2.1.   This study was commissioned by the General Teaching Council and Scottish Government based on a proposal from the Principal Investigators (PIs). The study builds on earlier research undertaken by them in relation to Chartered Teacher (McMahon, Reeves *et al*. 2007). Three years on from this first study a research base for the Chartered Teacher initiative is beginning to emerge, focusing on its conceptual basis (Reeves, 2007; Williamson and Robinson, 2009); perceptions of impact (Murray and Matheson, 2008; Carroll, 2009; Fox, 2009; McGeer, 2009) and comparisons with similar models elsewhere (Forde *et al*. 2006; Ingvarson and Rowe 2008; Ingvarson, 2009).

2.2.   Locating Chartered Teacher in a comparative and international arena was the aim of two successful international symposia on 'Accomplished Teaching' at the annual conference of the European Conference on Educational Research (ECER) held in Gothenberg in September 2008 and in Vienna in 2009. Both symposia generated much interest and debate about the 'Scottish Model' of accomplished teaching and discussion about the ways in which accomplished teaching might be measured and evaluated.

As noted above the study builds on initial research relating to Chartered Teacher that consisted largely of self-reporting by Chartered Teachers (McMahon, Reeves *et al.*

2007). While this was appropriate to the development of the initiative at that stage, CT is now in its seventh year of operation and it is important to begin to explore how more rigorous and systematic research might be undertaken to report on the roles, activities and influence of Chartered Teachers in their classrooms and school communities.

The study sought to explore further important questions relating to accomplished teaching in the context of the Chartered Teacher initiative in Scotland, in particular:

- how more rigorous and systematic research might be undertaken to assess the impact of accomplished teaching on pupils' learning by investigating how the effects of accomplished teaching might best be evidenced and

- how the capability of those involved in implementing the initiative might be improved to develop more effective means of promoting the professional learning of teachers seeking to become highly accomplished.

2.3.   The pilot project has trialled a range of research instruments and approaches in order to inform an application to a major research council (ESRC), led by a Scottish Research Group, to undertake an international study on evaluating accomplished teaching. It has also investigated the means whereby aspiring Chartered Teachers exemplify and provide evidence for the assessment of accomplishment within the context of Chartered Teacher programmes of study. This aspect of the project has led to recommendations for the review and enhancement of current practice with regard to the professional development of aspiring Chartered Teachers.

2.4.   A distinctive feature of the project was the engagement of two Chartered Teachers as CT Research Fellows. The CT Research Fellows were recruited through an application and interview process, following an invitation to apply issued through the GTCS database of Chartered Teachers. They were seconded from their teaching posts for twelve days to facilitate participation in the project. A reflective review of their involvement in the study is provided by the CT Research Fellows in Appendix 4.

3. Overall Project Design and the Structure of the Report

The study was designed to explore ways of evaluating accomplished teaching. For commissioning purposes and project management the study was subdivided into two sub-projects:

Sub-project A: Investigating the impact of accomplished teaching on pupils' learning
Sub-project B: Measuring and evaluating impact – a case study on the role and influence of Chartered Teachers

The aim of sub-project A was to research a means of evidencing the impact of accomplished teaching on pupils and to produce tools for use in classrooms and other settings for investigating the connection between pedagogy and learning. The project sought to improve the capability of Chartered Teachers and those providing Chartered Teacher programmes to adopt and use sound approaches for developing, evidencing and assessing the effects of accomplished teaching on pupils. The project aimed to make use of evidence that has accumulated over the past five years in relation to individual and collaborative classroom enquiries in Scottish schools and to identify what it tells us about evidencing links between accomplished pedagogy and pupils' learning. The investigation was informed by a focused literature search in relation to evidencing the effects of accomplished teaching. Specific research objectives for this part of the study were to:

- summarise what is known about the links between accomplished teaching and positive effects on pupils' learning and the means of evidencing them

- analyse and evaluate the means being used by Chartered Teachers in Scotland to evidence the impact of their practice on pupils and

- present reports making recommendations for practice/further investigation matched to the variety of stakeholders involved.

Sub-project B sought to undertake research on the impact of Chartered Teacher for pupils and teachers in a school community and to trial a research methodology as an instrument for measuring and evaluating impact. By adopting a case study approach this project sought to look closely at school contexts where there are a number of Chartered Teachers and to explore impact for pupils and teachers in a school community as a basis for developing effective research protocols and instruments for investigating accomplished teaching. Specific research objectives for this component of the study were to:

- investigate how the impact of individual Chartered Teachers on their pupils and their colleagues can best be evidenced

- investigate whether or not there is evidence of a collective and/or cumulative effect on the work of the school and/or departments where there are a number of Chartered Teachers on the staff and

- to provide recommendations about effective means of investigating the impact of Chartered Teachers in schools.

Within the two sub-projects four main elements were used as a basis for pursuing these objectives:

a)   a literature review (sub-project A)

b)   content analysis of major project submissions on CT programmes (sub-project A)

c)   focus group discussions with Chartered Teachers (sub-project A)

d)   case studies of Chartered Teachers in their school context. (sub-project B).

Ethical approval for the study was granted in June 2009 and data gathering in relation to the empirical components of the study took place from September – December 2009.[1] The individual participants and schools involved in the study have been anonymised throughout.

The commissioned proposal noted that both sub-projects jointly would comprise a research pilot and on the basis of the findings of the overall study and the evaluation of the research methodology, the research team would apply to a funding body, for example, ESRC, to undertake and lead an international study on evaluating 'accomplished teaching.'

Structure of the Report

In the following sections of the report the data gathering processes relating to each element are outlined (Section 4), as is the framing of the analysis (Section 5), and a summary of the key findings for each element (Section 6). This is followed, in Section 7, by a discussion linking the findings across the four elements of the project design to the levels used for framing the results: macro, meso and micro. Section 7 concludes with a series of recommendations for further investigation and /or development

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[1] Ethical Approval was granted from the Ethics Committees of University of Stirling and University of Glasgow.

4.   Research Design and Methodology

4.1.   As noted above the study consisted of four elements:

   a)   literature review

   b)   content analysis of major project submissions on CT programmes

   c)   focus group discussions with Chartered Teachers and

   d)   case studies of Chartered Teachers in their school context.

For project management purposes the study was separated into two components:
 i) literature review; content analysis of major project submissions and focus groups ii) case studies of Chartered Teachers in their school context.

The methodology relating to each element is reported separately. The CT Research Fellows were attached primarily to the case studies and were directly involved in the field research relating to these. They also contributed to whole team discussion and analysis of the data and preparation of this report.

4.2.   a) Literature Review

4.2.1. The aim of the literature review was to provide an overview of international research addressing the notion of accomplishment in school teaching. A literature search conducted between June and November 2009 produced an annotated bibliography of fifty articles, drawn from twenty-nine scholarly and professional journals, published between 2003 and 2009. The temporal parameters of the search reflect the duration of the Chartered Teacher programme, launched in Scotland in 2003. The review explored the following questions:

   • What are the characteristics of accomplished teaching?

   • How is accomplished teaching defined and assessed?

   • What is the impact of accomplished teaching on pupil outcomes?

   • Where are there gaps in research into the impact of accomplished teaching?

4.2.2.   The articles retrieved relate to policy and practice in eight different national contexts. The volume of articles from the different jurisdictions reflects different approaches and stages of implementation of strategies to define, recognise and reward accomplished teaching in each policy context. The articles include studies that focus on a range of different levels: institutional (school level), local and community (school district/cluster level), regional (state/local authority), national and international. The resultant annotated bibliography contains articles informed by the disciplines of the psychology, sociology, philosophy and economics of education with empirical, conceptual and philosophical foci. The studies the articles report can be located along a continuum dependent on the relative emphasis placed on *teacher professional learning* (developmental) and *student outcomes* (performance as indicated by available standardised test data) and this is reflected in the chosen methodological approaches. Studies range from those informed by economistic models of effectiveness to finely grained studies of processes of learning.

4.2.3.   Research on accomplished teaching is conducted by research teams interested in policy evaluation as well as teacher education faculty engaged in smaller-scale practice-based enquiries. Research designs include quasi-experiments, surveys, observation, action research and longitudinal studies (Sato *et al.* 2008; Day and Gu, 2007) as well as evaluation and intervention studies.

4.3.   b) Content analysis of major project submissions on CT programmes

4.3.1.   The team sampled 19 major project reports (including evidence contained in appendices and portfolios) in order, through content analysis, to:
* identify the means being used to evidence the impact of Chartered Teachers' practice on pupils
* identify the ways in which accomplished teaching was being framed in these texts and
* identify the links that were being made between teaching and learning.

4.3.2. The 19 reports, all of which were submitted successfully in either 2008 or 2009, were chosen by CT programme providers on the basis of a hierarchy of criteria:

- they were conducted with full ethical approval from the provider concerned using recognised ethical guidelines for research
- they focused on classroom practice
- they were judged to be of good quality against the Standard for Chartered Teacher and
- they were conducted in both primary and secondary school settings.

4.3.3. Participants were contacted initially by providers but thereafter communicated directly with the research team. We received consent to use work from five of the eight providers as shown in Table 1.1 (Appendix 1). Of the three providers whose major project reports we did not sample: one had only one successful submission, a second had none, and communication with the third provider was never successfully established.

4.3.4. The major project (MP) reports were analysed under the following headings:
    Summary of content
    Key organising words and concepts
    Use of other texts
    Claims made about connections between teaching and learning i) for pupils' learning, ii) for the teacher's own learning
    Evidence advanced to support claims for learning of i) pupils and ii) self.
    Summary of: a) view of learning b) view of accomplished teaching and c) view of what counts as evidence of learning (see Appendix 1 – 1.3 MP analysis pro-forma).

4.4.   c) Focus Groups with Chartered Teachers

4.4.1. All the Chartered Teachers who consented to be included in the major project sample were invited to attend one or other of two focus groups, held at Glasgow and Stirling Universities. The discussions were recorded and the recordings were used to

supplement field notes taken at the time. Eight teachers attended, five working in secondary and three working in primary settings. The notes from the two discussions and the interpretations placed upon them were circulated to focus group members for their comment. Both groups were asked:

- what were the principles that underpinned accomplished teaching?
- what they thought they had learned which made them a better teacher?
- what evidence they used to inform and improve the quality of their teaching?
- what they thought were the characteristics of accomplished teaching?
- what was important about their major project?
- what contributions they had made to their school community?

4.5.   d) Case studies of Chartered Teachers in schools

4.5.1.   This component of the research study was designed to look closely at a school where there is a number of Chartered Teachers and to explore the impact of Chartered Teachers for pupils and teachers in a school community. A key element of the study was to trial instruments that could be used as a basis for developing effective research protocols and instruments for investigating accomplished teaching at a given site.

4.5.2.   The original research design had planned for a case study approach focusing on one school from either the primary or secondary sector. The participating school was invited to become involved based on the number of Chartered Teachers in the school listed in the database of Chartered Teachers held by the General Teaching Council. As availability of Chartered Teachers to participate in the original school was limited a second school was also approached. Prior to data gathering members of the research team visited each school to brief the headteacher and other staff as appropriate and to meet with the participating teachers. Prospective participants were advised of the expectations of the study and, in line with ethical guidelines, that they could opt not to be involved and could withdraw at any time. Three participants decided not to proceed at this stage. This component of the study consisted of five teachers from two schools with varying levels of engagement with the study. All those participating had achieved Chartered Teacher

status through the accreditation route. All of the participants had been a teacher for more than ten years and one of the participants had been a teacher for more than 30 years. With the exception of one of the participants all of the participants had been employed in their current school for ten or more years.

4.5.3.   Based on the voluntary nature of participation in the study, and the fact that currently the number of Chartered Teachers who have completed the accreditation route is disproportionally high, vis-à-vis the programme route, this part of the study was only able to capture the views of Chartered Teachers who had completed the accreditation route. The involvement of participants who had completed the programme route may have provided alternative or different perspectives but this was beyond the parameters of this component of the study.

4.5.4.   Participants were issued with a school pack (Appendix 2) requesting selected evidence with critical commentary that they felt was illustrative of their work as a Chartered Teacher. The CT Research Fellows were more directly involved in this element of study and field research guidelines were provided to assist with this (Appendix 3). Participants were also asked to nominate another member of staff or colleague who would comment on their work as a Chartered Teacher. For three of the participants their headteacher was also their nominee. Participants had varying levels of engagement with the research including:

- completion of a Time Use Diary (TUD)[2]
- provision of evidence with commentary
- semi structured interview and
- identification of a nominee to comment on practice.

The range of evidence provided by participants is recorded in Table 1.4 (Appendix 1). In addition to the interviews with the CT participants, interviews were also conducted with

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[2] 4 out the 5 participants completed a TUD.

the headteacher and with the CT's nominee. Interviews were digitally recorded, transcribed and analysed.

5.   Framing the Analysis

5.1.   The original brief for the study was to explore the impact of the Chartered Teacher initiative on pupils' learning. It became obvious as we worked on the different strands of the study that there was a need to differentiate what might be meant by this concept. In so doing we have come to see the term 'impact on pupils' learning' as operating in a number of different ways according to the contexts in which it is used and discussed. The kinds of outcomes which are pertinent to the notion of impact on pupils' learning are both varied and contested. A differentiation by levels helps to clarify some of these issues. As a result of our investigations we have chosen to consider the issue of *impact on pupils' learning* as operating at three levels:

> firstly, at the systemic level within the national education service as a whole and in relation to the sectors within it: primary, secondary and local authority (macro level)

> secondly, at organisational level within individual school contexts (meso level) and

> thirdly, at classroom level as part of the interaction among teachers and pupils in the process of teaching and learning (micro level).

Each of these three levels of considering the question of impact has important implications in terms of the research methods which might be used to explore the effectiveness of the Chartered Teacher initiative.

5.2.   *Macro Level*

There is the broad question, which is of particular interest to policymakers, as to whether or not the introduction of the status of Chartered Teacher has served to ensure that there is a group of teachers who are more effective in terms of pupil outcomes than those who have not achieved the status. A subsidiary question, if they are a more effective segment of the teaching population, is whether they maintain this characteristic over time. A system-wide research strategy would need to be adopted to ensure a valid and robust approach to measuring Chartered Teacher effectiveness as a characteristic of a particular 'population.'

5.3.   *Meso Level*

At school level there is the question of whether Chartered Teachers enhance school performance in relation to pupil achievement either directly through their own teaching and/or indirectly through influencing their colleagues. In terms of research, this question centres around whether or not schools with Chartered Teachers improve their capacity to enhance student outcomes. Underlying it is the presumption of a capability on the part of Chartered Teachers to affect materially working practices, culture and values within school settings. Such issues of school capacity obviously relate to school effectiveness and school improvement research although the notion of class-based teachers influencing school-wide practice is relatively novel. Explorations at this level would have immediate relevance for Chartered Teachers, school leaders and managers, local authorities and programme providers in terms of practice. The range of factors operating at this level is particularly complex not only because of the considerable variations in the contexts in which Chartered Teachers are operating but also because of the social processes involved which make attempting to separate individual and collective effects highly questionable (Reeves and Forde, 2004).

5.4.   *Micro Level*

At classroom level the question is - how do accomplished teachers affect pupils' learning in the interactive process of educating? This is a question about how accomplished teachers gauge the impact of their activity on their pupils' learning on a minute-to-minute, day-by-day, month-by-month basis and how they respond to that feedback to ensure they maximise their students' learning. This relates directly to the quality of pedagogy and the nature of pedagogic expertise both of which are central to the development of professional learning and therefore to a status, such as Chartered Teacher, that is achieved through qualification. Findings at this level have greatest significance for Chartered Teachers and programme providers.

6.   Summary and discussion of findings

In this section the main findings from study are reported. A summary of the findings is provided in the first instance.

6.1.   Summary of Findings

Literature Study

1) Studies of the impact of accomplished teaching on pupils' learning are largely limited to the United States and suggest the use of longitudinal studies using matched pair designs and value-added models as the most robust means of investigation (6.2.1 - 6.2.3).

2) The distribution of accomplished teachers may be significant. Some of the research suggests a high proportion of teachers with advanced certification is located in schools with pupils from backgrounds with high socio-economic status (6.2.4).

3) The evidence also suggests that the effects of context on practice are important e.g. school culture, policy and regulatory frameworks (6.2.6-6.2.8).

4) Involvement in gaining certification contributes to teacher learning (6.2.8 and 6.2.11) with gains in relation to the quality of reflection, use of inquiry-oriented instruction, implementation of new strategies, assessment practices and understanding of pupils. However there was weak evidence in these studies of the promotion of higher levels of cognition (6.2.11).

5) The capacity of expert teachers to pay attention to classroom phenomena is high. Expert teachers use principles to analyse classroom phenomena as a means of getting beneath their surface features. This makes for more efficient and effective problem framing and solving as compared with novices. Placing value on being aware of pupils' prior knowledge and understanding is a characteristic of expert teachers (6.2.12 and 6.2.13).

Content analysis of Major Project submissions on CT programmes

6) All the MP reports provided a rationale for action based upon information the authors had gathered from a variety of sources about their area of interest (6.3.1 and 6.3.4).

7) By their nature (see Appendix 1, Table 1.2) these reports could not provide a cumulative basis for investigating impact on pupils' learning (6.3.3).

8) Most reports were of the outcomes of teaching interventions, the majority of which were based upon the introduction and evaluation of a particular teaching 'pack'. Many of these were based on constructivist approaches to teaching e.g. assessment is for learning. The use of ICT for teaching purposes was also a popular topic (6.3.2, 6.3.7,6.3.9).

9) The nature and content of the reports was clearly influenced by the CT programme providers (6.3.2, 6.3.4, 6.3.5, 6.3.6). Eighteen out of the nineteen reports were accounts of some form of action research or practitioner enquiry (6.3.5).

10) Collaborative projects were largely confined to the MP reports from a CT programme which required teachers to demonstrate an engagement in collaborative enquiry (6.3.2).

11) The MP reports generally contained little comment on their authors' personal professional development or on the SCT (6.3.2, 6.3.4). There was no direct reference in the texts to what the authors believed accomplished teaching to be (6.3.4).

12) The evidence provided to demonstrate impact on pupils' learning was largely the outcome of the use of pre/post test strategies to assess changes in pupils' knowledge and attitudes – there was relatively little evidence advanced in relation to growth in skills (6.3.3).

13) In the MP reports little direct link was made between teaching and learning as part of an ongoing process, most attention being paid to inputs and outputs (6.3.8).

14) There was evidence that the nature of teachers' enquiries was narrowed by an emphasis on "operationalism" (6.3.9) and by conceptions of research which removed an examination of teaching and the teacher from the accounts given in the MP reports (6.3.10).

Focus Group Discussions with Chartered Teachers

15) The focus groups emphasised the importance of responsiveness to individual pupils, to what they know and how they feel. Feedback from pupils was much more important to the participants than it had been before they undertook the programme. They paid far more attention to what pupils said and did in the course of interaction in the classroom. Engagement in the CT programme had changed the way they interacted with pupils. They had a more personalised approach which they felt was characteristic of accomplished teachers (6.4.1).

16) The group members' professional confidence had improved which had changed their attitudes, particularly with regard to classroom control. Becoming more open to pupil feedback enabled them to allow pupils a more active role in their classes. It has also led participants to adopt a more inclusive approach in their teaching through enabling them to differentiate their teaching responses according to pupils' learning needs (6.4.2).

17) Some people described becoming more accurate in the didactic elements of their teaching. This is because they are more actively seeking to know what and how their pupils are thinking therefore they can adapt their teaching to foster cognitive development on the basis of pupils' prior knowledge and understanding (6.4.3).

18) Experiencing a wider influence in schools appeared to vary considerably, with participants having very different experiences according to the school or schools they were working in. Some participants felt they were fully engaged in leading learning in their schools whereas others still felt there was little scope for activism. Some headteachers were now making reference to the SNCT's Code of Practice on the Role of Chartered Teachers (6.4.4).

School Case Studies

19) CTs felt that identification as an accomplished teacher through certification was problematic because teachers who choose not to seek certification may be as accomplished as those that do (6.5.2).

20) CTs' definition of an accomplished teacher characterised her or him as: engaged with individual pupils, innovative, open-minded, committed, enthusiastic, supportive, collaborative and reflective (6.5.18).

21) There was evidence of CTs' engagement in a substantial level of collaboration and engagement with colleagues and in providing a lead in curricular development but again, within the limits of the pilot, there was no means of testing whether this represented substantively different practice from that of other teachers matched for age/experience (6.5.5 and 6.5.6).

22) The nature of the teachers' relations with pupils were identified by CTs as crucial to becoming an accomplished teacher (6.5.10 – 6.5.11, 6.5.17) with a focus on knowing individuals and supporting their learning.

23) Importance was placed by CTs on pupil attainment and progression including demonstrating success in national assessments (6.5.11).

24) In one school, having several CTs was seen by the headteacher as means of raising the level of professional discussion and thinking about how to empower children in their learning and of creating and maintaining high quality teaching (6.5.13).

6.2. *Literature Review*

The review raised important definitional and conceptual issues and identified a range of contested positions. It also gave indications of what type of research designs would support the empirical investigation of the outcomes of the Chartered Teacher initiative and the learning processes involved in becoming an accomplished teacher.

Questions of Impact:

Macro level – studies at system level

6.2.1. A key finding to emerge from the review is that there is a paucity of large-scale quantitative studies with a longitudinal focus. Reviews of research capacity in teacher education suggest that research in this area of educational research tends to be small-scale, qualitative, fragmented and non-cumulative. Building capacity in research *on* and *for* teacher education has been identified as a priority for educational research in the United States (Wilson *et al.* 2001; Cochran-Smith and Zeichner, 2006), the United Kingdom (Munn, 2008) and Europe (Arreman, 2008; Lunenberg *et al.* 2007). There are a few examples of large-scale, sequential mixed-method designs relevant to the fields of accomplished teaching. These include Sato *et al.* (2008) on formative assessment practices, work by Day *et al.* (2007) on teacher resilience and competence, and Stronge *et al*'s (2007) comparison of NBCTs with non-NCBT colleagues using pre-instructional, dispositional and in-classroom variables. The relative dearth of such studies stands in contrast to the current emphasis placed on impact assessment in research commissioning.

6.2.2. There are few studies that examine the impact of advanced certification schemes post initial candidacy (Petty *et al*. 2007) or that conduct in-depth studies to establish if changes in teachers' instructional practice produces improved outcomes for learners, especially in the longer term (see Lustick and Sykes, 2006). Most of these explore the effects of National Board for Professional Teaching Standards Certification in the United States as this is the longest running national scheme for assessing and recognizing accomplished teaching (1987). The outcomes are mixed with some studies claiming that the students of National Board Certified Teachers (NBCT) outperform those of similar non-certified teachers (Vandevoort and Berliner, 2004; National Research Council, 2008; Cantrell *et al*. 2007; Goldhaber and Anthony, 2007) whilst others contend there is no significant difference between the pupil outcomes achieved by the two groups (Rouse, 2008, Silver *et al*. 2009).

6.2.3. Comparison over time of the contribution of groups of teachers attaining advanced certification with equivalent peers who have not sought accreditation is methodologically challenging. Contention over the assessment of the impact of interventions, such as advanced certification, suggests a need for further major studies using matched pairs designs and the development of sophisticated value-added models to examine the effect of teachers on student performance. This has implications for researchers and education administrators in terms of the availability of reliable data sets to support sample selection. Stronge *et al.* (2007) have noted how researchers interested in assessing the impact of advanced certification are impeded by weak linkage between student achievement and teacher records in school systems.

6.2.4. In addition to these problems, analysis of large-scale datasets of official records raises equity issues regarding the distribution of 'accomplished teachers'. Based on an analysis of official records in North Carolina (1997-2000), research by Goldhaber *et al.* (2004) suggests that regardless of whether districts offer explicit incentives, teachers are more likely to apply and be certified if they are employed in more affluent schools and in districts with higher-achieving students.

6.2.5. A mixed-method, longitudinal approach would address the complexity of professional practice within educational settings *and* satisfy the need for public accountability of systems designed to incentivise and enhance professionalism in teaching.

Meso Level - Teacher quality at school level – qualitative studies

6.2.6. Recent studies with an explicit focus on professional learning underline the significance of informal learning contexts in sustaining learning across the career phases following the initial intervention (e.g. following attaining advanced certification or Chartered Teacher status). Studies suggest that the maintenance of inquiry-oriented teaching and enhanced professional practice is heavily influenced by local contextual conditions (Reeves, 2007; Croskie and Place, 2008; Harrison *et al*. 2008; Carroll 2009). These studies draw attention to the social processes of adult professional learning within extant communities of practice, which may not closely match the ideal professional learning community (as depicted for example by Stoll and Louis, 2007). Elmore (1996) has noted the limitation of interventions to improve professional practice that do not penetrate the core of teachers' day-to-day classroom practice and teachers' work cultures.

6.2.7. The policy and regulatory frameworks that govern the profession in particular jurisdictions influence the extent to which there is scope for deliberation on the technical, political and ethical dimensions of teaching i.e. 'what teachers should know and be able to do'. Ingvarson and Rowe (2008) challenge the teacher-quality/student-performance/merit pay research and policy agenda. They argue that 'the direct relationship between good teaching and learning outcomes is uncertain' (including value-added modelling). Tests 'do not measure all that teachers are trying to achieve' (p.14-15). They conclude that 'the appraisal of quality teaching is strongly interpretative and requires high levels of discernment on the part of the evaluators' (p.16).

6.2.8. Croskie and Place (2008) conducted a two-year small-scale study qualitative study with five elementary (primary) teachers who attained National Board certification to establish how new learning is integrated into their practice in the post- candidacy year. This study suggests that the certification process has a positive impact for teachers' by providing conceptual tools (in the form of portfolio questions and standards) that allow teachers to be more self-reflective. They acknowledge, however, that personal and institutional constraints influence the degree to which teachers are able to implement instruction aligned with the National Board standards. Kelly (2006) suggests that teacher identity is the outcome of creative mediation between 'assigned' and 'preferred identities' (p.514):

> Teachers' engagement in the working practices of schools and the associated discourses and ways of thinking which help define school life make it more likely that they will have particular expectations of what it is to be an expert teacher and privilege particular problems which expert teachers might seek to address (Kelly 2006, p.512).

The problem here is that in certain schools the culture may engender an instrumental and technicist orientation to improvement rather than a more critical inquiry stance among teachers.

6.2.9. Current research contends with limitations of sample size, availability of reliable and comparable student assessments at stage levels and curriculum areas (state wide /national tests), and the resource implications of operationalising in-depth case studies of classroom practice that are attentive to particular institutional contexts and their locale.

Micro Level: Studies focused on the development of teacher expertise – attentional skills and intentional strategies

6.2.10. Cognitivist, socio-cultural and technicist models of expertise are identified in the literature. Depictions of the development of expertise are characterised as either

predominantly linear, accrued through experience (Berliner, 2001), or more fluid, recursive and unstable (Day, 2008; Scott and Dinham, 2008). A number of European and North American studies have conducted comparisons between 'novice' and 'expert' teachers to identify the distinctive features of expert decision-making and practice (Ainley and Luntley, 2007a, 2007b; Hogan, Rabinowitz and Craven, 2003; Krull *et al*. 2007; Meyer, 2004). In addition to technicist notions of teacher expertise, there is a body of work from the philosophy of education that discusses the professional obligations of the ethical teacher and the significance of character in teaching (Carr, 2006, 2007; Carr and Skinner, 2009).

6.2.11. Park *et al.* (2007) undertook a case study of three high school science teachers in suburban Atlanta to understand better how teachers develop pedagogic content knowledge. Findings indicate that the NB certification process had a positive influence on five aspects of the candidate teachers' instructional practices: (a) reflection on teaching practices, (b) implementation of new and/or innovative teaching strategies, (c) inquiry-oriented instruction, (d) assessments of students' learning, and (e) understanding of students. An analysis of 'best practice' features from NBCT portfolio submissions by Silver *et al.* (2009) found evidence of innovative pedagogy but only weak evidence for the promotion of higher levels of cognition. The researchers conclude that there is 'little evidence that innovative pedagogy was being used effectively to support students' work with cognitively demanding tasks in the mathematics classroom' (Silver *et al* 2009, p.524).

6.2.12. Influenced by studies from professions allied to medicine Ainley and Luntley (2007a, 2007b) focused on the development of *expert decision making* among experienced teachers in England. This two-stage pilot study involved classroom observation and interviews with six teachers of primary and secondary mathematics. Lessons were video-recorded, with the camera focusing on the teacher throughout. Full transcripts were prepared with annotated non-verbal behaviour and contextual detail from the video recording. In the second stage, interviews were conducted with the teachers referring to video recordings and transcripts and coding schema were developed. This

study makes a contribution towards the development of a vocabulary for articulating aspects of the expert classroom practice of experienced teachers. The authors propose a 'new' theoretical model of expert practice that identifies the importance of attentional skills. Within this model attention-dependent knowledge is set alongside subject and pedagogic knowledge to offer a novel perspective for analysing aspects of classroom practice. Research by Hogan, Rabinowitz and Craven (2003) using an experimental design (involving triad judgment tasks) suggests that 'expert' teachers (NBCT certified) (n=20) are more likely than novices (n=98) to represent problem scenarios through principles, rather than surface features. They suggest that 'deep representation' is one of the hallmarks of teacher expertise and successful problem solving in the classroom.

6.2.13. In the USA, Meyer (2004) conducted an exploratory case study of six novice and two expert teachers to provide insights into how novice and expert teachers understand the concept of prior knowledge; and how they use this knowledge to make instructional decisions. They maintain that novice teachers hold insufficient understandings of students' prior knowledge and its role in instruction to implement constructivist teaching practices effectively. Novice teachers approach prior knowledge as prior teaching, whereas expert teachers emphasised the role of student ideas and explanations. Novice teachers also lacked strategies to find out about prior knowledge (beyond what students could recall) and struggled to modify content after eliciting information. Expert teachers used intentional pre-assessment activities to understand students' prior knowledge. Expert teachers stressed to students what they already knew, whilst novice teachers stressed what students did not know and needed to learn (to accumulate knowledge). Expert teachers have a more complex understanding of knowledge. Meyer (2004) concludes that the apparent *'intuitiveness of the expert teacher is a planned event'* (p.981).

6.3. *Major projects*

6.3.1. All the major projects except two directly involved their authors in making some sort of teaching intervention within their classroom either as an individual action research project or in collaboration with others. In 18 out of the 19 reports the authors had collected and analysed data from classrooms with the object of detecting pupils' responses to the teaching interventions they had chosen to implement or, in one case, had persuaded others to implement. These 18 reports included samples of this data and made some judgments about the value of the outcomes of the intervention. Each of the 19 reports contained a rationale for the study the author had undertaken; these were based on information drawn from a variety of sources e.g. policy texts, reports of previous research and evaluations in a given area, more general theoretical texts, internet publications etc. The extent and criticality of this research by authors into what others had written about their area of interest was again variable and clearly influenced by the programme they had undertaken.

6.3.2. *Features of the sample:*
Key: n/x = n out of a total of x accounts

a) Of the projects undertaken by these CTs most were concerned the evaluation of a particular teaching 'pack' (11/17 reports). A minority were interventions devised by the author and those whom they worked with (6/17). 8/17 projects involved colleagues and 1/17 involved pupils as active participants in the research process (most projects involved students in giving feedback for evaluative purposes).

b) Of the two accounts (2/19) which did not concern teaching interventions conducted personally by their authors, one focused on the development of teaching materials and one on the distribution and evaluation of a commercial

ICT package which had been carried out by a member of a support service working with staff in schools.

c) 7/19 accounts involved the use of ICT for teaching purposes.

d) Most accounts did not comment on the author's own professional development; where they did it was because the rubric for the MP required them to do so (12/19). In this sample of 12 reports the comments consisted of a short paragraph or less in six of the cases.

e) 9/19 projects were collaborative/co-operative – the majority of these, 6/9, being generated by teachers on a CT programme that required them to undertake a collaborative project.

f) Reference to the Standard for Chartered Teacher was quite variable with a minority of submissions being clearly linked to the Standard by their authors whilst others only mentioned it once or twice in their texts. Again this appeared to vary according to the provider.

g) Numbers of pupils involved in the interventions ranged from 0-156 where sample size was specified. A number of reports simply stated how many classes were involved in an enquiry. As one would expect, generally greater numbers of pupils were involved in the collaborative enquiries.

6.3.3. *Evidence of Impact on Pupils' Learning*

The evidence presented in the MP reports consists of:

Observation

11/18 major project reports use, or include, evidence gathered through the observation of classroom activity:

> Field notes in journals etc. 8/18
> Video and photo evidence 5/18
> Observation schedules 4/18

<u>Pre / post tests</u>

15/18 reports include some pre / post test usually in questionnaire form as a means to try and establish changes in pupils' learning or attitudes:

> Knowledge and skills (majority focus on knowledge) 12/18
>
> Attitude (toward self as learner and learning experiences) 12/18

<u>Pupils' classwork</u>

This source of evidence was included in 7/18 reports:

> Entries in pupils' learning journals (usually introduced as part of the reported intervention) 6/18
>
> Classwork (assignments) 4/18

<u>Interviews</u>

Interviews were used in 4 of the studies:

> Individual interviews with pupils and teachers (3/18 and 2/18)
>
> Pupil focus groups 3/18

What the analysis revealed is that the reports made relatively little use of evidence resulting from the process of teaching and learning since neither observational data nor the texts and artefacts produced by pupils were central to the analysis of impact. The reports placed most reliance on measures relating to input and output and the use of data gathering instruments devised for the purposes of the teachers' activity as action researchers.

Overall the studies, by their very nature and purpose, are not suitable to serve as a source of cumulative data in relation to impact on pupils' learning. Whilst there are some excellent examples of practitioner enquiries, as would be expected, the sample overall represents investigations that vary widely in terms of scale, focus, context and quality.

6.3.4. *Accomplished Teaching*

There was no direct comment on what constituted accomplished teaching as such. The submissions tended to focus upon general learning theory and literature relating directly to the content of their authors' interventions rather than the practice of teaching.

Chartered Teachers were also not required to make explicit correlations between their actions and the Standard for Chartered Teacher (SCT) because such correlations were taken as 'a given' by most programme providers possibly because language from the SCT was incorporated into the assessment criteria alongside that from Scottish Certification and Qualification Framework Level 11.

6.3.5. In the guidance given to Chartered Teachers (Appendix 1, Table 1.3) they were variously asked to carry out applied research, and/or action research, professional enquiries or development projects. Two providers looked for two cycles in the research/enquiry process with a pilot or preparatory phase preceding implementation of a change in teaching strategy. Two providers specified that projects must focus on affecting pupils' learning through the use of classroom-based interventions.

6.3.6. In the case of three providers the genre for reporting was that of a traditional Masters dissertation: background and rationale, literature review, methodology, findings, critical evaluation. One provider used a project management framework for reporting and also required evidence of the dissemination of outcomes. Another provider required candidates to conduct a collaborative project involving colleagues in classroom enquiry and to submit a report in two parts. Part one of the report was a public document within the context of the school and part two was a reflective commentary involving self-evaluation, with explicit reference to engaging with others and influencing practice. These requirements made the submissions of Chartered Teachers on this programme distinctive.

6.3.7. In terms of the subject of the interventions, our overall impression is that the movement from a pedagogy based upon traditional notions of knowledge transfer and practice to the use of one based on constructivist and social constructivist theories of learning was a central concern for these teachers in the schools within which they were working (see Table 1.4 Appendix 1). The use of ICT was also relatively prominent. The implication of these choices is that the application of these approaches to teaching is regarded as innovatory and in many ways this correlates with the emphasis in the policy

arena on active and independent learning, formative assessment and the development of core transferable skills.

6.3.8. *Connections between Teaching and Learning*

In general the conceptualisation and design of the action research projects focused upon:

- inputs and outputs as in pre/post tests and surveys. There was a tendency to neglect consideration of processes and an examination of teaching and learning activity as such

- the demonstration that an intervention had worked

- an emphasis on summative evaluation and

- a conventional design of research questions followed by answers.

Given this, it difficult in a number of the reports to find explicit comments about the connections between teaching and learning.

Although most projects were described as a form of action research, certain characteristics of action research were arguably missing in the accounts:

the emergent and cyclical nature of this type of enquiry; and

the centrality of the learning of those who conduct the enquiry as both process and product (Lewin, 1946).

This is an issue linked to both the genre for reporting and the way in which evidence is legitimated and may need to be considered alongside the recommendations made in section 7.4 of this report.

6.3.9. *Evidence of Impact on Pupils' Learning*

Many of the reports present a range of evidence drawn from pupils that relates both to changes in knowledge and skills and changes in attitudes and affect in relation to classroom activity. Many of the collaborative accounts also gather similar data from adult participants. The accounts are generally thorough and thoughtful, drawing on other peoples' ideas in their inception through the use of literature and policy texts. A few are specifically focused on particular problems in relation to learning whilst the majority describe enquiries based less on a diagnosis of current practice and more clearly related to the evaluation of a recommended innovation as part of a school's improvement agenda. The data that has been gathered is used to show differences between the state of affairs at the start of the intervention and at the end.

6.3.10. In a number of the accounts there was an explicit emphasis on being objective. This seemed to be used as the basis for ruling out observational data (except that captured using a formal schedule) as legitimate. In three cases such data was presented in appendices but explicitly excluded for comment in the report by the authors on the grounds of being "subjective". The need to be objective also seemed to serve as a basis for removing the teacher as actor from the report. This in turn meant that within the sample critical reflection on the teaching and learning process was relatively weak. The emphasis on a positivistic conceptualisation of research also channelled data gathering into the use of research instruments such as surveys and tests. Overall there was a relative neglect of the data that is normally available to teachers in the on-going teaching and learning process and in the majority of accounts little use was made of pupils' normal day-to-day work, classroom talk and behaviour. Data was also ruled out of accounts because it did not fit with the original question i.e. things that happened that led off in a different direction and disrupted earlier assumptions could also be eliminated from consideration.

6.3.11. The work-based projects revealed an interesting relationship between the genre of accounts that Chartered Teachers were required to use to shape their actions and experiences, their understandings of evidence-based practice and the value of their

personal professional development. This will be discussed in conjunction with the evidence from the literature review, the case studies and the focus groups in section 7.

6.4. *Focus Groups*

6.4.1. *Impact on Pupils' Learning*

The focus group evidence bore a close resemblance to that given by Chartered Teachers in answer to enquiries about teaching practice in an earlier study (McMahon, Reeves *et al*. 2007). However the responses given during this second study have provided greater detail. Evidence of impact on the learning of pupils was clearly related to data arising in the course of interaction in classrooms: body language, answers to questions, behaviour, talk levels and tone etc. There was support for the notion that awareness of, attention to, and interpretation of pupils' reactions had improved as a result of participation in CT programmes. Participants felt that being engaged in structured reflection, data gathering and analysis, encountering and reading research-oriented texts, discussion with others and carrying out action projects had developed their skills and led to a substantive alteration in their perception of what teaching was about. Participants claimed there had been an alteration in their classroom interactions which were now characterised by more personal, more rounded relationships driven by a greater interest in pupils as persons and underpinned by 'listening' to pupils. One participant described how engaging in learning gave him an insight into:

> particularly the emotional effects, the emotional life of a learner. Going into group discussions with people I didn't know at all gave me a sense of how mean group work could be on some kids. My experiences sensitised me to what to look out for in group work.

Another asserted:

> I'm more and more aware of what I don't know about kids.

6.4.2. Gains in responsiveness to feedback from students were improved by the confidence that these Chartered Teachers had developed as a result of their participation in the programme. They now felt able to ask pupils what they thought about the way they were teaching and this data, as well as that resulting from improved attention to, and observation of pupils, was perceived as having a significant impact on their practice. Several remarked that they had become more inclusive in their teaching as a result of responding to pupils as individuals. In this there was an issue of trust and security, established by the conduct of the teacher and the nature of the teacher's attitude to their task. The latter was what had most profoundly changed for people. Central to this transformation were changed attitudes to classroom control. One teacher, reporting on the response of a senior management team member to watching her teach, summarised this in the following terms:

> …but you've let the control go, when I walk into your classroom, yeah, you're in charge but the kids are doing a lot of the teaching as well as the learning – and it's a process. He sees the results and he's happy with what I'm doing but he also sees it as pretty scary looking at me working because he doesn't see how he could make that jump.

6.4.3. Members of the groups felt that greater safety and trust resulted in improved communication and accuracy in terms of teaching decisions e.g. not wasting time teaching pupils what they already knew, homing in on misconceptions and misconnections and working to correct them expressed as an interest in why 'they're not getting it' rather than relying on simple repetition of information:

> It is being aware of the way they respond - asking better questions – listening to their answers rather than just ticking off what I want to hear– understanding what mistakes are they making. Listening for the wrong connection – in class we'll go through the thought processes now whereas before I was just telling them. I was teaching but there was not much learning going on. Now they analyse their own

methods. They feel safer with me now – they come to my classes on time – little things like that.

6.4.4. *Influence*

The focus groups confirmed that they were making much the same range of contributions in schools that had emerged from earlier research. However the responses showed that the differences in Chartered Teachers' experiences continued to be quite marked. Some group members were experiencing a positive and encouraging response to their wider engagement in the school from senior managers and colleagues whilst others still felt that Chartered Teacher status was largely disregarded and misinterpreted. There was evidence that there had been a response to the Code of Practice issued by the SNCT in a couple of the schools in terms of senior managers seeking to negotiate specific tasks with individual CTs.

6.5   Case Studies of Chartered Teachers in their school settings

6.5.1.   As noted in Section 4 above this element of the study was designed to look closely at schools where there are a number of Chartered Teachers and to explore the impact of Chartered Teachers for pupils and teachers in a school community – the meso and micro levels. A key objective of this aspect of the study was to investigate how the impact of individual Chartered Teachers for their pupils and their colleagues can best be evidenced. A case study approach was considered an appropriate means for eliciting this through a focused study at one or more sites (Briggs and Coleman, 2007; Bennett *et al*.1994). In the research design for this component of the study several approaches to evidencing impact were trialled as outlined in Section 4. The aim of multi-level evidencing of accomplished teaching was to corroborate the claims for enhanced practice and impact for learners made through self-reporting and self interpretation by the CT participants. As noted in the review of literature there are few studies that examine the impact of advanced certification schemes post initial candidacy (see p28 above). The

influence of local contextual conditions is also noted (see p30). The case studies in this study sought to explore this in relation to Chartered Teacher in authentic settings.

Given the small size of the sample in relation to this component of the study care has been taken in the report to ensure that participating schools and individuals cannot easily be identified. The team also note that although the sample size is small, the engagement of the participants in the research and evidence gathering process does assist in adding to understandings of the ways in which Chartered Teachers are working in their school communities and some of the means of evidencing this.

6.5.2.   *Defining accomplishment*

A key principle of the Standard for Chartered Teacher is 'sustained, enhanced practice over time' so that the accomplished features of a Chartered Teacher's work are a usual way of working. This may make it more difficult for Chartered Teachers to articulate what it is about their work that characterises it as accomplished and so the illustrative range of sources of evidence in the school pack, issued to teacher participants in the study, together with interviews with HT / SMG and nominees, aimed to capture this.

In the school pack participants were reminded of the shared understanding of accomplishment as specified in the Standard for Chartered Teacher:

> Accomplished teaching of the kind reflected in the Standard for
> Chartered Teacher is teaching in which the four central values and
> commitments permeate the work of the teacher in the classroom, the
> school, and beyond. The Chartered Teacher will be effective in
> promoting learning and committed to the development of all forms of
> professional action (Standard for Chartered Teacher, 2002:3).

Self-identification as an accomplished teacher can be problematic and several participants in the study noted that there are many teachers whose practice could be described as

accomplished but who have not sought to have this recognised and rewarded through CT status. This is explored further in Section 7 of this report.

6.5.3   Time Use Diary

In order to gauge the range of activities in which that Chartered Teachers may be involved participants were asked to maintain a record of their activities outwith class contact time for one week. Examples of activities were provided. The recording tool took the form of a time use diary. Time use diaries are a way of surveying teachers' hours and conditions and had been used previously by members of the research team as component of a major research project investigating teachers' working time in relation to the implementation of the Teachers' Agreement (2001) (Menter, *et al*. 2006:8). In this study time use diaries were completed by four of the five participants.

6.5.4.   The time use diaries were analysed by categorising the information provided by the participants, using the headings below, and comparing reported activities across participants. A summary of responses to the TUD is provided in Table 3 (Appendix 1). The coding themes for the TUD were:

- Types of activities
- Timing of activities
- Duration of activities
- Frequency of activities
- Participants

6.5.5.   The range of activities recorded by participants in the TUD and their professional interactions with others show that for these Chartered Teachers their work is characterised by high levels of collaboration and engagement with other colleagues; in providing a strong lead in curricular innovation and development and disseminating information and resources relating to this within and beyond their school. A further dimension is pastoral activities relating to pupils. These activities take place throughout the school day as well as before and after school. The TUD diaries suggest that a

significant element of 'outreach' characterises the practice of the Chartered Teachers in the study, so that their influence extends beyond their own classroom to the wider school community and on occasion to local and national level. In considering whether or not the activities recorded in the TUD can be said to reflect 'accomplishment' a key question is whether or not the activities reflect what would be expected of any classroom practitioner who has attained the Standard for Full Registration. The range of activities undertaken and the extent of engagement reported by participants in this study would require an enhanced level of professional skill and expertise, as well as professional knowledge and understanding, to be exercised credibly in a variety of contexts.

6.5.6.   The element of 'outreach' recorded in the TUD provides a further record of how Chartered Teachers are contributing to learning and teaching and supporting other colleagues. The absence of a formal remit for Chartered Teacher can present difficulties for school managers, and indeed for Chartered Teachers, in relation to the ways in which Chartered Teachers can contribute. The publication of the *Code of Practice on the Role of Chartered Teachers* in 2009 (SNCT, 2009) should provide some clarity in relation to this. From the evidence provided in the TUD the Chartered Teachers who participated in the study appear to be engaged in the types of activities listed in the Code in their day-to-day practice such as:

- leading and /or contributing to projects
- supporting, advising and mentoring colleagues
- developing aspects of the curriculum and leading curricular change and assessment in the school
- leading in-service on research work or educational development
- developing relationships in school and beyond to the wider community (SNCT, 2009).

6.5.7.   Participant generated evidence and data

In the school pack (Appendix 2) participants were asked to provide data relating to pupil attainment and progression; specifically, pupil tracking data issued to them in the last two years. This was defined as data that is routinely issued to classroom practitioners as

evidence of progression of learners: for example: 5-14 levels, predicted grades and outturn grades, examination results. They were also asked to select evidence of their accomplishment in teaching over the last two years and, if possible, to provide a short video / vignette to demonstrate their strengths as a teacher. To accompany the evidence participants were asked to provide a critical commentary on the data / evidence selected. A proforma was provided for each element (Appendix 2).

6.5.8.   The inclusion of a request for a short video / vignette of practice demonstrating their strengths as teacher was intended to trial an approach to capturing claims of enhanced practice in a context where formal observation of this as part of the assessment relating to award of Chartered Teacher status is precluded. One of the participants provided a short DVD of a lesson recorded for this study and also included a further item of pre existing video material as part of their evidence. This item involved another school colleague who was also participating in this research study. Another participant did not wish to provide a video but was happy to be observed by one of the CT Research Fellows and was shadowed for a day. The observation report by the CT Research Fellow noted skilful and sensitive responses to individual pupils; a very strong sense of direction and purposefulness; good humour; excellent work rate, and discipline assumed rather than maintained.

6.5.9.   As noted above, participants were asked to provide evidence with critical commentary. A proforma was provided to assist with this. At the briefing session the possible sources of evidence were outlined. There was some discussion about whether this duplicated the provision of evidence required for the portfolio submitted for the award of Chartered Teacher status. Participants were assured that while evidence from the portfolio could be included, the provision of evidence in relation to the research study did not entail the re-submission of the reflective portfolio.

6.5.10. Three of the five participants provided a range of evidence as requested in the school pack. A summary of evidence provided is provided in Table 2 (Appendix 1). One participant provided 26 items of evidence and provided a verbal commentary to two

members of the research team. The evidence provided by all participants was reviewed by the CT research fellows and by a member of the research team highly experienced in assessing professional portfolios including evidence.

6.5.11. In the pro forma in the school pack, participants were provided with questions to reflect on / assist their selection of evidence. The review of the evidence outlined below, from a collective perspective, and illustrated by examples from the evidence provided, shows a number of key themes, consistent with actions reported in other elements of the study, for example the major projects (see p33 above). These include:

- focus on individual learners – planning for and responding to their needs, based on knowing pupils well and developing and maintaining good pupil- teacher relationships (for example, two items of evidence were supplied showing how individual attainment varied from recorded data to work produced by a pupil at a significantly higher standard than reported test scores indicated)

- supporting under-achieving learners (for example, evidence was provided of a personal reading record designed to improve pupil attainment through an individualised approach to reading, based on a period of time for personal reading at the beginning of a lesson)

- designing and implementing strategies to support pupil progression (for example, by designing a detailed feedback sheet used formatively; by maintaining detailed records on pupil performance. Evidence was also provided showing improvement in attainment linked to the adoption of new approaches)

- demonstrable success in results of national assessment (for example, through pupil performance in standardised tests)

- adopting and maintaining a critically reflective approach to own practice

(for example, through issuing a course evaluation to pupils, responding to and interacting with feedback to question and adapt own approaches to learning and teaching as a result; by reviewing results of standardised tests and using these to inform practice)

- disseminating information and sharing / making available resources to colleagues (for example, by designing and sharing materials / resources, providing in-service sessions for colleagues; leading new initiatives)

- recognition of expertise by others
  (for example, recording by line manager in PRD of particular expertise in aspects of pedagogy; invitation to present innovative approaches to cross curricular themes at Good Practice Seminar; parental recognition acknowledging impact on individual pupil).

6.5.12. As noted above, two items of video material were submitted by one of the participants. One item involved another school colleague who was also participating in this research study. For both items of video material accompanying documentation was supplied, including samples of pupil work and materials presented to other audiences. Verbal commentary on the video material was made in course of interviews with the participants and was referred to in the headteacher interview. Review of the video material provided showed:

- confident engagement with pupils
- strong teacher – pupil relationships
- high levels of pupil interaction
- frequent reference to individual pupil targets
- progression in learning tasks and activities
- regular review of learning
- self and peer reflection and assessment
- individual pupil feedback from teacher

- effective use of technology
- contextualising and reference to relevant research as appropriate (for example, in dissemination activity).

In summary the school pack appears to have been generally effective in assisting participants in generating evidence to exemplify their practice, though some of this evidence may have been readily available with completion of their CT professional portfolio. Nevertheless the summary of evidence above suggests that, for these Chartered Teachers confidence and accomplishment in the relational dimensions of learning and teaching enable them to adopt and adapt pedagogic practices that are focused on the individual learning and pastoral needs of the learner.

6.5.13. A second objective of the school based component of the study was to investigate whether or not there is evidence of a collective and/or cumulative effect on the work of the school and/or departments where there are a number of Chartered Teachers on the staff. As noted in review of literature on accomplished teaching (see reference to Stronge *et al*. p28 and p29 above) this aspect of impact can only be reliably measured through a large scale longitudinal study that includes tracking teacher performance and pupil attainment over time. The introduction of a more effective tracking and monitoring system using PRD processes as well as examination results, as noted in one of the participating schools, may well facilitate this though this may generate ethical and professional issues relating to a targeted focus on a specific group of teachers.

For this study collective impact was investigated through semi-structured interviews with headteachers and with nominees proposed by the participants. In the semi-structured interviews with school managers, questions focused on the types of networks operating in the school, the ways in which Chartered Teachers operate across these and the impact of having a number of Chartered Teachers on the staff (Field Research Guidelines, Appendix 3).

6.5.14. In the case of the school where three Chartered Teachers participated in the study, their contribution was described by the headteacher as 'being able to lead from four quarters' based on collaborative working and a shared ethos and understanding of learning and teaching. For this headteacher having a number of Chartered Teachers on the staff raises 'the level of thinking about how to empower children and their learning' and brings 'a maturity in educational thinking.' The influence and contribution of Chartered Teachers is manifest in a range of ways: through membership of working groups and leadership roles within these; through working with beginning teachers or being matched as stage partner to a less experienced teacher; through presentations and in-services at school, cluster and LA level.

6.5.15. Two significant effects noted by the headteacher of the school are the impact for other colleagues and benefits to the school of having Chartered Teachers. As evidence from an earlier study has shown, Chartered Teachers perform an outreach role for other colleagues in their own school and beyond (McMahon, Reeves *et al.* 2007). In this study this is both formal and informal: as mentor or stage partner; someone to consult about aspects of learning and teaching; support and encouragement for becoming a Chartered Teacher; engaging in professional dialogue and conversation. For this headteacher the significance of such pedagogical leadership is that the Chartered Teachers 'don't just create but maintain a high level of teaching in the school' adding that in the main they have created the momentum for others to model themselves on what they have done. One benefit to the school is that becoming a Chartered Teacher means they are more likely to remain in the school whereas if they had opted for the leadership pathway they may have left.

6.5.16. In the other participating school, the headteacher outlined ways in which the influence of Chartered Teachers across the school community was evident – through staff room conversations; presenting initiatives to the school and outside the school and through the interactions with pupils. Chartered Teachers are also involved in working groups and school committees. While Chartered Teachers can and do have a role, this is

neither in a formal nor strategic way since the opportunities to contribute are open to all teachers in the school.

6.5.17. In interviews conducted as part of the study, participants provided further illustrations of how they were affecting and influencing developments in their immediate classroom and across the wider school community. These included supporting colleagues and beginning teachers through mentoring and coaching in formal and informal ways; being available for colleagues to observe classroom approaches and strategies; encouraging innovation and contributing as a member or leader of whole school groups such as a learning and teaching group. As noted by the headteacher above, Chartered Teachers can also have a role as standard-bearers for other teachers - motivating and encouraging others to develop their practice.

6.5.18. As would be expected it was at the classroom or micro level that articulation of impact was most evident. A clear strand in all the interviews conducted with Chartered Teachers was a strong focus on the learner. Interview responses, supported in some instances by video evidence, showed insight into the relational dimensions of pedagogic practice as well as the ability to deliver curricular content. Participant responses showed a commitment to the development of the whole child / learner – a commitment that is ambitious for their success in life. For example, one respondent linked this to being an accomplished teacher:

> An accomplished teacher puts the child at the centre and challenges the
> child and pushes the child to try to get the best out of that child so that
> you're trying to get the best out of everybody.

All participants articulated a need to know the individual child / learner:

> I don't look at a child as a statistic…I look at a child as a child and I
> love watching them grow and mature into young people.

While these aspirations might be expected to be shared by all members of the teaching profession, it is the further elaboration of how these are achieved that provides insight into the relational dimensions of practice and an understanding of the role of the classroom teacher. This was articulated in various ways in the interviews but a common theme was that of the teacher leading and facilitating a varied set of learning experiences, empowering children to take responsibility for their own learning and knowing when teacher intervention and direction is required.

6.5.19. In the interviews participants were also asked to share their understanding of accomplishment in the context of Chartered Teacher. Two key themes were the distinction between competence and accomplishment, with accomplishment seen as a step beyond competence; and evidence of accomplishment in engagement with pupils. Participants' responses also characterise the accomplished teacher as one who is innovative, open minded, committed, enthusiastic, approachable, supportive, collaborative, seeking to improve and a reflective practitioner. One participant suggested that there are 'lots of different ways teachers can be accomplished teachers' and offered some examples:

> a really solid teacher who had taught well for a long time and perhaps does not always want to try new things but really succeeds with what they have done; a teacher who is really into trying out different initiatives; a teacher who has got fantastic relationships with children and teachers who can make learning and teaching interesting and motivating.

As this Chartered Teacher suggests, there are can be different levels and degrees of accomplishment and collectively and cumulatively this has the potential to impact on pupils' learning in the classroom and across the school.

6.5.20. In relation to the approaches trialled in the school-based component of this study, the use of a variety of strategies was helpful in corroborating and triangulating evidence

provided from a range of sources. For example, the range of activities recorded in the TUD was affirmed by the headteacher, discussed further in the interviews with the Chartered Teacher participants and evidenced by the examples of practice provided. Central to this is the critical commentary that participants could provide on their own practice and how they chose to evidence this. As noted previously, although the sample for this component of the study was small, it does offer insight in to the work and practice of Chartered Teachers. The literature study also noted the importance of context and culture which will impact on what teachers will be able to do and will also impact on the ways in which this can be evaluated.

7.   Analysis of findings and recommendations

In this section the findings described in Section 6 are synthesised as a basis for making recommendations for future research and development in identifying and improving the impact of the Chartered Teacher initiative on pupils' learning.

7.1.   *Micro Level – Interacting with pupils to promote their learning*

7.1.1. The evidence from the major project reports and the focus groups indicates that the current format of the Chartered Teacher programmes that were involved in the pilot study generally does support:

- greater awareness of research literature and of learning theory
- more rigorous forms of reflection and improved analytical skills
- increased attention to issues of evidence and a sharper focus on pupils' learning.

Furthermore Chartered Teachers in the focus groups clearly valued their projects as vehicles for enhancing their professional learning.

However the research did raise questions about current understandings of evidence-informed practice: if engagement with Chartered Teacher programmes is supposed to support the development of accomplished teaching:

- what sort of approach to the issue of evidencing the impact of teaching on pupils' learning would be most helpful in fostering the requisite professional learning?
- how is the development of evidence-informed practice amongst Chartered Teachers and their colleagues in school best supported?

7.1.2.   There was a clear disjunction between the way in which major projects were conceived and reported on the sampled CT programmes and what both the literature and the Chartered Teachers said about evidence of impact on pupils' learning. This contrast between the two lies in the exclusion of the data used by accomplished teachers to guide their decisions about how to make use of their teaching repertoire as they teach from the major project reports. This is evidence about pupils' learning of an interactive and relational nature that arises in the course of classroom activity. This raises the question:

- since it is processual evidence that supposedly underpins the development of expertise is there a need for re-visiting how professional enquiry is framed on Chartered Teacher programmes?

7.1.3.   Allied to this apparent lack of attention to pupil activity in the reporting of major projects is a similar omission of commentary on what Chartered Teachers learn about themselves as practitioners. Again, this relates to the lack of an interactional focus in the approach to practitioner enquiry currently being adopted by providers. Since awareness of professional practice arguably hinges around making sense of both your own actions as a practitioner and those of your students in the course of activity (literature review, focus group and case studies) this omission is probably unhelpful. Again this raises some questions:

- should aspiring Chartered Teachers' development as classroom practitioners be a central issue in reporting on the outcomes of practice-based learning?

- should Chartered Teachers be addressing questions of what makes for accomplished practice more directly, for example, exploring the connections between accomplishment and the effective teaching of pupils who normally underachieve?

The evidence from this pilot study would suggest that it is important, in terms of impact, to re-assert the criticality of the direct relational effects on learning of classroom interactions and their importance as an object of study in practitioner research.

7.1.4. More indirectly our data suggests that Chartered Teachers are serving as a means of enhancing the penetration of constructivist and social constructivist theory into classroom practice (major project reports). This clearly aligns with important elements of current policy. However, there is a possible danger of establishing an uncritical orthodoxy. Further investigation as to the range and mixture of elements that form the teaching repertoires of accomplished teachers and how these elements relate to pupils' learning would be a legitimate and useful focus for enquiry.

7.2.   Meso Level: Having an influence on learning within a school

7.2.1. In terms of pupil attainment within schools there is no formal system for the collection of data at teacher level and such internal comparisons as are made consist of relative ratings of departmental performance based upon pupil outcome data by subject area in the secondary sector.

7.2.2. The evidence from the case studies and the focus groups showed that Chartered Teachers attach importance to the attainment of their pupils and in this respect good results are a matter of pride. However, they also gave strong indications that their assessment of their impact goes beyond this to a concern for pupils' overall development as individuals. Some cited the importance of this latter concern as a characteristic of accomplished teachers and, at a personal level, described experiencing this as a change from an emphasis on their own activity as teachers to actively seeking to develop their knowledge and understanding of individual pupils.

7.2.3. The major project reports and the focus groups also indicated that Chartered Teachers generally saw themselves as adopting constructivist approaches to pedagogy and as innovators in relation to teaching practice within their school contexts. Some pointed to the importance of developing a deep understanding of learning theory and knowledge of its application in practice as a basis for having the self-confidence, willingness and resilience to influence others in relation to teaching and learning.

7.2.4. In terms of influence the study confirmed the range of contributions that emerged from the previous study conducted for the GTCS and Scottish Government (McMahon, Reeves *et al*. 2007) and underlined the difficulty of gauging the impact of these forms of activity. This is, firstly, because we have no comparative data to show whether the behaviour of Chartered Teachers in this respect is consistently different from that of other teachers at a similar stage in their career, and secondly, because the data from the major projects, the focus groups, the literature review and the case studies emphasised the importance of contextual factors. Chartered Teachers had very different experiences within schools depending on whether the culture at departmental and whole school level was more, or less, open to collaboration and participation by and amongst staff. It was also clear that programme providers could have some influence as to whether or not Chartered Teachers had experience of undertaking collaborative action, at least whilst they were programme participants. The requirement placed upon Chartered Teachers to act as change agents within schools through the Standard for Chartered Teacher (SE, 2002; Kirk *et al*. 2003) represents a major shift in the role of class teachers and this study indicates that attempting to enact this change has complex cultural, political and structural implications within schools. In this regard there is also an implication for providers as to how far they can and should assist Chartered Teachers to develop the understanding and skills to cope with the micro-political and cultural dimensions of exercising teacher leadership. For all these reasons assessing the impact of Chartered Teachers on pupils' learning at school level is complex and the issue will need to be explored as more than a matter of individual action on the part of individual CTs.

7.3. *Macro-level: Having an influence upon the educational service as a whole.*

7.3.1 The study raised a number of questions about the general demographics of CTs. For example, the proportion of Chartered Teachers in local authorities' ASN services appears to be relatively high. Another question is whether there is a greater concentration of Chartered Teachers in schools with low percentages of pupils with free school meal entitlement. As noted in the literature review research by Goldhaber, Perry and Anthony (2004) suggests that regardless of whether districts offer explicit incentives, teachers are more likely to apply and be certified if they are employed in more affluent schools and in districts with higher-achieving students. In any assessment of Chartered Teachers' impact, their distribution according to age, gender, racial grouping, sector, subject and type of school needs to be taken into account. As a new segment of the teaching population the distribution and characteristics of Chartered Teachers are changing quite rapidly and likely to continue to do so over the next decade.

7.3.2 The literature review indicates that, because of the complexities of the issue, the impact of Chartered Teachers on pupils' learning would only be determined with what would be regarded as reasonable reliability and validity as part of a large-scale longitudinal study. Such a study of the impact of the CT initiative would need to use a design that matches Chartered Teachers with colleagues who have not undertaken the qualification. Any such study would require a very careful consideration of school and local authority variables as part of the matching process as well as being undertaken across a large number of sites in order to ameliorate the effects of contextual bias.

7.4. *Recommendations for future research and development*

In the following section we outline recommendations, based on the findings from this study and linked to previous research by members of the research team (McMahon, Reeves *et al.* 2007; Hulme *et al.* 2008).

7.4.1. The evidence from this study would suggest, as noted above (p51) that it is important, in terms of impact, to re-assert the criticality of the direct relational effects on learning of classroom interactions. Building on the use and modification of the school

pack developed by the team for exploring classroom practice, we recommend that a study is undertaken, identifying approaches and tools that can be used by experienced teachers as a basis for enhancing their impact on pupils' learning and developing their expertise and effectiveness as classroom practitioners. Such a study could be conducted as a series of school-based initiatives involving colleagues, school managers and local authority personnel.

7.4.2. On similar grounds we would recommend that the terms under which CT programmes are accredited should be reviewed with particular regard to:

• what it means to develop evidence - informed classroom practice
• the weight that should be given to the personal professional development of Chartered Teachers as classroom practitioners and
• how Chartered Teachers may be supported to undertake their wider role as change agents and leaders of learning.

7.4.3. We recommend that funding should be sought for an international study of accomplished teachers. Since the type of large-scale longitudinal study required to determine the impact of the CT initiative on pupils' learning with reasonable reliability and validity will necessarily be expensive, a partnership approach that builds on some of the connections which have already been made makes good sense. Such a study would allow for comparison across datasets and facilitate analysis, from an international perspective, of the range of personal and professional traits of teachers who engage in schemes that seek to recognize and certificate accomplished teaching.

Such a study could combine the use of quantitative methods with longitudinal case studies in a range of schools using the tracking and analysis of relational effects to explore the complicated issues of indirect and collective impact on pupils' learning of accomplished teachers. This investigation of influence could run alongside looking in

more depth at the classroom practice of those both seeking to become recognised as accomplished teachers and those who have already achieved recognition.

It should be noted that the TDA has recently commissioned an Evaluation of Masters in Teaching and Learning (MTL) requiring a longitudinal study (5 years) analysing both stakeholder perceptions of MTL, the implementation of the qualification and the impact of the qualification on stakeholders' practices, behaviors and outcomes. The study is based on matched pairs study, matching classes within schools and matching teachers across schools plus observational data relating to changes in 20 case study schools (TDA, 2010).

Conclusion

Ongoing development and evaluation of the Chartered Teacher initiative in Scotland requires a 'system wide approach' that includes all stakeholders: Chartered Teachers, schools, Local Authorities, providers of Chartered Teacher programmes, Scottish Government, HMIe, Teacher Unions, Professional Associations and the accrediting body – GTCS. The creation of a nation wide Chartered Teacher Learning Community or Network would involve all of these stakeholders in the common goal of exploring and defining the means of developing and understanding accomplished teaching as relational practice. This extension of partnership, based on the sharing of outcomes, resources and professional experiences could be made more widely available through web-based resources and could form the focus for a future CT Partnership / Association of Chartered Teacher conference.

Linked to recommendation 7.4.3 above, the involvement of Chartered Teachers as part of the research team has been an important dimension of this study and the CT Research Fellows have played a key role in mediating and facilitating the aims and requirements of the study for the participants and in providing a lens on accomplished practice for the

research team. Based on this we recommend the involvement of Chartered Teachers in future research studies relating to the Chartered Teacher imitative in Scotland.

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Table 1.1: The Sample of Major Projects

Provider	No	Sample
1	4	Prim Spec, Sec RME, Sec English, Sec ASN (collab)
2	6	2 x Prim cross age, Sec Bio (dep), 2 x Sec Cross-curricular, Sec PE (dep)
3	5	Nurs, Prim, Prim ASN support service, Sec Eng, Sec Music
4	2	Prim cross age, Prim
5	2	Sec ICT, Sec Tech

Table 1.2: Content of Major Project Reports

The table below provides an overview of the teaching interventions that formed the basis of the 19 reports. The data has been grouped according to the framing of the learning issue to be addressed, the materials that were either used or directly influenced the teaching process in classrooms and the underlying pedagogical principles that were invoked/ implied in the report.

Learning Issue	Package	Pedagogy
Literacy & behaviour	ICT E-twinning British Council resource pack.	Social constructivist/constructivist
Writing – spelling	Mnemonic spelling system	Learning styles
Concept mapping for assessment purposes	ICT Use of commercial concept mapping program Thinking Skills	Constructivist
Bereavement and loss	Developed a teaching package for use by teachers and others in the field	Therapeutic – social and emotional development - resilience
Writing – developing independence in writing. Cross age collaboration in primary	None used. Influenced by AiFL approach. Collaborative writing, formative assessment & peer discussion.	Co-constructivist
Formative assessment in Science	AiFL strategies – peer discussion	Developing a constructivist approach to teaching within a science department
Severe communication difficulties	Intensive interaction based on early mother/ child interactions	Therapeutic - communication
Cognitive development early years	Philosophical inquiry. Developed resources from existing materials	Social constructivist - dialogic
Playground conflict etc. cross-age whole school collaboration in primary	Restorative practice - previous work on literacy and peer support cited	Active learning, therapeutic thru restorative practice – (free enquiry – pupils as researchers)
Grammar as an unappealing topic in in English classes	ICT Interactive Whiteboard	Whole class– interactive and participative
Cognitive development capacity to participate in discussion	None used, group discussion and collaborative working	Dialogic teaching
Writing – developing extended writing in primary	Storyline strategy	Active learning - discussion
Confidence in the music classroom in secondary	Outward Bound experience	Affective - importance of socio-emotional factors in learning
Literacy – reading with pupils in primary schools identified as having deep seated problems by Ed.Psych service	ICT Commercial software for developing basic literacy	Behaviourist, task analysis & diagnostic Basic skills games approach. Individualised resource
Concept mapping skills, peer assessment	ICT Inspiration 6.0 computer software.	Social constructivist – but impression

– cross-curricular in secondary	AiFL and Thinking Skills	concerned with competence in software use
Technology – using a new 3D design tool	ICT Autodesk Inventor development of teaching materials	Behaviourist, task analysis & resulted in a how to use tool. Individualised resource
Trial of Glow as a VLE	ICT Glow	Behaviourist – access to tasks and resources at any time/place.
Sustainable development using moving image secondary RME	Uses Screen Scotland pack. Moving image literacy	About what will motivate and engage – active learning.
Improving theory homework in PE	AiFL strategies - created by a PE dept	Social constructivist approach

Table 1.3   Major Project Analysis Pro-forma

Submission No.   Provider:

Sector: Subject:

Title of submission:

Date of submission:

Analysed by:

Search	**Evidence** (quotes - page number & paragraph	**Interpretation / comments**
Summary content (100 words).		
What are the key organising words and concepts (+ surrounding words that indicate what these key words mean). (frequency of use, centrality)		
Summary of use of texts (policy, literature etc.).		
Connections (including claims) made between teaching and learning (pupils)		
Connections (including claims) made between teaching and learning (self)		
Evidence advanced to support claims for learning (pupils) (class and lit generated)		
Evidence advanced to support claims for learning (self) (class and lit generated)		
Summary Section	Interpretation - Overview	Cross References
LEARNING		
ACCOMPLISHED TEACHING		
EVIDENCE		

OTHER COMMENTS

Table 1.4: Data gathering record for case studies

TUD	Evidence & commentary (School pack)	Interview	Nominee
✓	✓	✓	✓
		✓	
✓	✓	✓	✓
✓	✓	✓	✓
✓		✓	✓

Table 1.5   *Summary of the participant responses to TUD*

Types of activities	• Supporting other colleagues directly, relating to learning and teaching in a routine, rather than an explicit way. • Providing materials / sharing materials. • Developing new resources. • Contingency planning. • Engagements relating to pupil progress and behaviour. • Liaising with colleagues from other curricular areas and sharing information and resources. • Liaising with colleagues from Local Authority and external agencies. • Professional discussions with colleagues. • Liaising with parents and parent helpers. • Involvement in extra curricular activities. • Supporting beginning teachers (shadowing, providing reference). • Presentation to paraprofessionals.
Timing of activities	The activities are reported by participants as having taken place before class, during break time, at lunch time and afterschool. This reflects the design of the TUD where participants were asked to record activities out with class contact time. The TUD diaries showed engagement in a range of activities, at all times of the school day and beyond.
Duration of activities	Where this was recorded, the activities noted by participants in their TUD were typically of 15-30 minutes duration.
Frequency of activities	The activities reported occurred through out the school day.
Participants	Participants reported engagement with a wide range of people including: • Pupils • Subject teaching colleagues / stage partner • ICT staff • Administrative staff • Paraprofessionals / learning assistants • Colleagues from other curricular areas • Parents • Members of SMT • Guidance and behaviour support staff • External agencies • External tutor

Appendix 2

Evaluating Accomplished Teaching

School Pack[©]

Contents

Guide to school pack

1.   Introduction

This pack contains a number of data gathering instruments that you are asked to use as part of this project. Each instrument is designed to enable you to provide information and evidence relating to your work as a Chartered Teacher. In particular we are trying to investigate what you do in your classrooms and within the school and what you regard as evidence of accomplished teaching. Collectively the instruments should enable us to generate as comprehensive a picture as possible of what Chartered Teachers do within the current context of the school. This data will be used as the basis for an interview with one of the researchers in the team.

2.   Data gathering instruments

There are three different data gathering exercises we would like you to undertake and a detailed explanation is provided with each of the data gathering instruments in the pack. In summary the three instruments are:

2.1   Time use diary for recording non contact time activities.

You are asked to complete a Time Use Diary for one school week. Selection of a suitable week will be discussed with the research team. In the Time Use Diary you are asked to record any activities out with class contact time that you have been involved with during the selected week. Examples of such activities are given on the sheet.

2.2   Pro forma for recording pupil tracking data and commenting on its significance.

You are asked to provide pupil tracking data that has been issued to you in the last two years. This is data that is routinely issued to classroom practitioners as evidence of progression of learners, for example: 5-14 levels; predicted grades and outturn grades; examination results. You are asked to provide a critical commentary on the data.

2.3   Pro forma for recording evidence of accomplished practice

You are asked to provide evidence of your accomplishment in teaching over the last two years and a short video that you select to demonstrate your strengths as a teacher, together with a short commentary. Further guidance is given on the pro forma and the research team will advise on the range of evidence and the video.

What is meant by 'accomplishment'?

For the purposes of this research project the Standard for Chartered Teacher is taken to define accomplished teaching.

The Standard for Chartered Teacher is professional standard recognising accomplishment in teaching:

Accomplished teaching of the kind reflected in the Standard for Chartered Teacher is teaching in which the four central values and commitments permeate the work of the teacher in the classroom, the school, and beyond. The Chartered Teacher will be effective in promoting learning and committed to the development of all forms of professional action.

(Standard for Chartered Teacher, 2002:3)

Time Use diary   **Participant Code**

You are asked to complete a Time Use Diary for the following week: e.g. w/b 26th October 2008

In this Time Use Diary we would like you to record any activities out with class contact time that you have been involved with during the selected week. Please provide details about these activities.

- For each day please try to record the amount of time you have spent on each activity.

- Please estimate all times to the **nearest 15 minutes**.

Time	Monday	Tuesday	Wednesday	Tuesday	Friday	Saturday	Sunday
Before class							
Break time							
Lunch time							
After class							
Other contacts							

Examples of activities: dissemination of information; delivering a CPD session; networking with other CTs; professional conversations with colleagues. You should also record activities for which you are asked for advice, to undertake certain initiatives or make suggestions for development.

Examples of other contacts: telephone calls; emails, memos and other documentation; formal and informal meetings in non school environments.

Record of Tracking Data & Commentary

Guidelines

(i) We would like you to provide tracking data that has been issued to you. This is data that is routinely issued to classroom practitioners as evidence of progression for learners.

This may be data that has been issued to you *in the last two years*. and may include:

- 5-14 levels;
- predicted grades and outturn grades;
- examination results;
- any other data you think is relevant.

Please list these on the following page. You may be asked to bring copies of this with you to the research interview.

(ii) We would like you to provide a critical commentary on the data you have provided. Where appropriate please comment on examples or incidences of performance that you think are indicative of accomplishment in teaching.

Headings are provided in the following page to assist you in this.

Tracking Data Commentary

Using the tracking data you have identified, please provide a commentary on the data, noting examples or incidences of performance that you think are indicative of accomplishment in teaching. Headings are provided to assist you.

Tracking data – item 1	Title / label
Suggested focus (i) How I use / used this data: • to inform my practice; • to plan for learners' progression; • to change / adapt existing resources or develop new resources; • to discuss with colleagues; • to propose curricular or pedagogical innovations • any other ways in which you used the data.	Your critical commentary
(ii) What does the data mean to me? • • •	

Please continue on a separate sheet if necessary.

Evidencing Accomplished Teaching

Guidelines

(i) We would like you to provide evidence from your practice of your accomplishment as a Chartered Teacher.

Identify a project that you have initiated or been involved with that you think represents your accomplishment in teaching and select evidence /artefacts that illustrates this from *the last two years.*

We would like you to provide a short video, with commentary, about this. Further guidance about the video will be given by the research team.

Evidence may include:

- visual / audio representations including photographs and short videos;
- samples of pupils' work;
- curricular materials and
- any other resources / artefacts that you think represent your accomplishment in teaching.

You may be asked to bring copies of these with you to the research interview.

(ii) We would like you to provide a commentary on the evidence you have selected for us. Where appropriate please comment on examples or incidences of performance that you think are indicative of accomplishment in teaching.

Headings are provided in the following page to assist you in this.

Evidence Commentary

Using the evidence you have *selected*, please provide a commentary on the evidence, noting examples or incidences of performance that you think are indicative of accomplishment in teaching. Headings are provided to assist you.

Summary of selected project

Evidence – item 1	Title / label
Suggested focus (i) Why this item has been selected	Your critical commentary
(ii) What this item of evidence illustrates (with reference to the Standard for Chartered Teacher).	

Please continue on a separate sheet if necessary.

Appendix 3

Field Research Guidelines   Day 1

w/b 21th October 2009

Meeting 1   *45-60 mins*

Meeting with CT participants

- Introduction to project

- Overview of consent procedures

- Outline of data gathering (using pro formas)

- Negotiation / agreement of time for collation / commentary

- Questions to the research team

- Date for submission of data – 30th October

- Date for next visit

Meeting 2   *45-60 mins*

Meeting with school Senior Management Team

- Introduction to project

- Overview of consent procedures

- Outline of data gathering (using pro formas)

- Access to additional data – general comparators

- Negotiation / agreement of time participation

- Questions to the research team

- Date for next visit

Field Research Guidelines Day 2

w/b 9nd November (day to be confirmed)

Interviews

Interview Set 1 - CT participants **~90 mins**

Each member of team to conduct an interview (viability? access to equipment, release of staff time)

Questions to CT participants will be designed following preliminary trawl of data submissions.

Interview Set 2 -   senior school managers (who? – HT, DHT – CPD)
~90 mins

Interview schedule

- What are the networks operating in the school?
- How do the CTs operate across these?
- Which Committees do CTs serve on?
- What in-service events have CTs contributed to?
- What in-service events have CTs led?
- Are CTs routinely visited by other teachers to discuss / exemplify practice?
- What engagement do CTs have with other teachers?
- What engagement do CTs have at Local Authority level/

Interview Set 3 -   line managers **~30 mins**

Telephone interview schedule

What is accomplished teaching?
How is it evident in your department?
What influence does a CT have in your department / school?

Appendix 4   *Reflection and reviews from Chartered Teacher Research Fellows*

As noted in the main report, two Chartered Teacher Research Fellows were recruited to the study through an application and interview process and were seconded from their teaching posts to facilitate their participation as members of the research and development team. They were attached primarily to the case studies and were directly involved in the field research relating to these. They also contributed to whole team discussion and analysis of the data and preparation of draft and final report. They played an important role in facilitating and mediating the school based component of study, liaising directly with Chartered Teachers and other staff in the case study schools.

As the study evolved it became clear that the involvement of two Chartered Teacher Research Fellows as part of the research and development team added considerable value to the research process as they were able to discern, articulate and evaluate the ways in which teachers and fellow Chartered Teachers talk about, and evidence, their practice.

The involvement of the Chartered Teachers Research Fellows in this study indicates another way in which Chartered Teachers can contribute to professional learning and development. Their expertise, already recognised through the award of Chartered Teacher status, can add credibility to field research with practitioners in schools through the application of their classroom knowledge and skills of enquiry and research.

CT Research Fellow Review (1)

This research project is very valuable because it has established the importance of finding out about accomplished teaching in Scottish schools; it has begun the process of identifying and defining the aspects of such accomplished teaching which are crucial in, first of all engaging young people and then, introducing them to the real joys of meaningful learning, sustained interest and effort and, from that, genuine achievement. Classroom teachers and pupils - old and young - know about the effects of accomplished teaching on their own learning experiences and attainment but

everyone- from HMI to QIOs - also knows how difficult it is to encapsulate or even identify such qualities within traditional monitoring exercises.

The importance of the accomplished teacher has been reinforced by the outcome of a recent survey of young people in Scotland who rank teachers as role models of equal importance to their own parents. However I feel quite strongly that understanding as much as we can about accomplished teaching is also very important at this time because there has been- for many years- such an intensive period of government dependence on centrally instigated initiatives, top-down development and commercially produced in-service courses. Declaring their appreciation of individual commitment and initiative- by investigating expertise and accomplishment – is in itself a very powerful message from the GTCS; it re-balances the equation by reassuring teachers that their personal input is highly valued. I believe such reassurance should help to empower and motivate many Scottish teachers to exploit the professional autonomy suggested by CfE

I have enjoyed being involved in the project very much. I have learned a great deal from the team of academic teachers with whom I have been working. Their teamwork is impressive to me: mutual trust and respect for individual expertise; an assumption of excellence and success; objectivity - which has often seemed to me like reassuring wisdom linked to their ability to stand back and view issues from a much wider perspective - and, always, their enthusiasm. Throughout I have felt actively included and supported and so I have reached this stage wanting to do more.

It has certainly rekindled my interest in reading and researching key issues. Reading the materials suggested by the team was a real pleasure and I was sorry I did not have time to do more. I was very interested in the fact that so many countries are on the same track- trying to get to the bottom of what makes an accomplished teacher. Patterns were quick to emerge and the same issues and ideas intriguingly cropped up again and again.

I enjoyed the fieldwork too - very much - although I worried about my lack of expertise in interviewing. My day of shadowing/observation was very, very interesting: as one interviewee said - such shadowing/ observation is a sure way to find out a great deal - but - as another colleague remarked tellingly- it is how to establish non-threatening, positive observation that is difficult.

The initiative of inviting classroom teachers to work with academic researchers is an excellent one for lots of reasons: it combines perspectives, providing checks and balances, informing ideas and outcomes with new resources. It has been highly motivating for me and it has raised a great deal of interest and support within my school. I will always be very grateful for having had the experience and hope that such research projects and opportunities can be developed further.

CT Research Fellow Review (2)

This project, seeking to evaluate accomplished teaching and its impact on learners, has been the first to involve Chartered Teachers as members of the research team. Two Chartered Teachers were selected to join the team in July, 2009. At this stage, the research outline had been agreed and an application for funding from the Scottish Government and the GTCS had been successful.

The university staff on the team welcomed us in a very friendly manner, but they were a working team before we joined. We respected the research experience of the rest of the team and we wondered about our own role in the project. It was difficult not to feel that we were sitting at the feet of experts, difficult to remember that we had been asked to join the team because it was considered that we had something to offer, not just something to learn. Although both of us had previously been involved in research, the world of the professional is different from that of the student researcher. We were joining a new community of practice and our experiences matched the apprenticeship model of learning by doing, by asking questions and by legitimate peripheral participation (Lave and Wenger, 2000).

As the project moved into the data-gathering phase, we started to feel that we were on more familiar territory. The other CT researcher was able to make use of their insider knowledge (Hellawell, 2006) of networks, hierarchies and of the pressures experienced by secondary staff. I was personally known at the primary school in the study and so had a rapport with the Chartered Teachers and with the head teacher. Having this credibility made it easier to gain their co-operation and support for the project. I felt that a change took place in our roles within the research team at this phase of the project. Our up-to-date insider knowledge of schools, teaching and

Chartered Teachers was of some value to the team. We were regularly consulted as the project moved into the analysis phase and I feel that our input was taken seriously.