

DRIVING FORWARD PROFESSIONAL
STANDARDS FOR TEACHERS



Teacher Research Programme 2009/2010

Teaching for Understanding: Evaluating a Whole School Initiative

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Abstract

This report evaluates a whole school CPD project led by the Head Teacher of a rural secondary school in southwest Scotland. The aims of the initiative were to implement the Teaching for Understanding framework as a means of improving learning and teaching across the school, to improve consistency of planning across the school and to increase collaborative practice among staff. Data were gathered using questionnaires distributed to staff at the start of the project in order to establish a baseline of practice. Semi-structured interviews of six staff, from different phases of the professional life cycle, different roles within the school and from different teaching subjects, highlighted particular themes which led to the following revised research questions:

- To what extent did the teachers engage with the TfU framework?
- To what extent did the TfU programme influence teachers' practice?
- To what extent was the impact of the TfU programme influenced by the context?
- What impact did the TfU programme have on teachers and learners?
- How far did the TfU programme achieve the Head Teacher's original aims?

A final questionnaire was given to teaching staff to ascertain opinions in relation to the themes that emerged from analysis of interview data.

This report suggests that while the adoption of the framework led to improvements in learning and teaching for some staff, this was largely dependent on the subject taught and the career phase of the teacher. The whole school CPD project led to increased collaborative reflection on planning but a number of factors were identified as inhibiting adoption of the approach by more experienced teachers. These included conflicting demands on teacher time and issues surrounding professional autonomy. However, teachers endorsed the underlying principles of the framework.

1. Introduction

1.1 Literature Review

Understanding is an abstract concept and difficult to pin down despite being so widely used in the common parlance of educators. If one were to ask ten different teachers what they understood by the term 'understanding', there would be ten different answers albeit ranging on certain themes around 'knowing', 'having insight', 'the ability to make judgements', 'the ability to make connections' or 'the power of abstract thought'. In educational literature the definition of understanding also varies greatly as evidenced in Folks' review discussing this tricky concept, aptly titled "*Understanding Understanding*" (2006). She concludes that understanding is a complex concept with many different facets which for some is making cognitive connections (Prawat, 1989 cited by Folks, 2006) while for others it is subject specific with many different types of understanding within a particular field such as conceptual, procedural, situational and causal 'understandings' (Newton, 2000 cited by Folks, 2006). For yet others it is never complete and can always be enriched (Gallagher, 2000 cited by Folks, 2006). For Gardner (1993, cited by Folks 2006) it is, "having sufficient grasp of concepts, principles or skills so that you can bring them to bear on new problems and situations". This performance perspective of understanding suggests that "genuine understanding has been achieved if an individual proves able to apply knowledge in a new situation, without applying such knowledge erroneously or inappropriately; if he or she can do so spontaneously, without specific instruction to do so" (Gardner and Boix-Mansilla, 1994 cited by Folks, 2006).

Despite the difficulties in defining what it means to understand, understanding is widely acknowledged as a worthwhile and valued goal in education (Gardner & Boix-Mansilla, 1994; Newton, 2001b cited by Folk, 2006). Indeed, understanding is embedded either explicitly or implied in the national curricula of both Scotland and

England. The National Curriculum in England, as Boyd (2010) writes in the Times Educational Supplement Scotland, has “the word ‘understanding’ in all six of its ‘areas of learning’: mathematical *understanding*, scientific and technological *understanding*, *understanding* English, communication and languages, historical, geographical and social *understanding*, *understanding* the arts; and *understanding* physical health and well-being.” (*italics added*) Boyd’s point at this particular juncture in his article is that while Scotland with its Curriculum for Excellence (CfE) enshrines the word “depth” as an important principle, the English curriculum takes some of the principles of CfE and goes further by enshrining “understanding” in all six of its new learning areas (*ibid*). The Higher Order Skills Excellence Group wrote in their report to the Cabinet Secretary that “Curriculum for Excellence sees the acquisition of knowledge as essential but insufficient. Young people must also possess *understanding* and the *skills* needed to apply their *knowledge* in useful ways” (Scottish Government, 2011 *italics added*). Embedded at the heart of the new Scottish Curriculum for Excellence are skills, understanding and knowledge. The notion that education should equip young people to understand and to do as well as to know is important at every stage” (*ibid*).

For David Perkins, from Harvard University, “Knowledge, skill and understanding are the stock in trade of education” (1998). He continues that knowledge and skill are easy to define with knowledge being “information on tap” and skills being “routine performances on tap” (*ibid*). For Perkins the essence of learning and teaching is understanding. The Teaching for Understanding (TfU) project has its origins in 1988 when David Perkins, Howard Gardner and Vito Perrone began to think about the problem of “understanding”. Working at the Harvard Graduate School of Education they set out to answer three questions:

1. What does it mean to understand?
2. How do we teach for understanding?
3. How do we assess for understanding? (Unger, 1997)

Out of the desire to answer these questions, as Entwistle (2001) neatly summarizes, a five year research and development programme was begun:

with the intention of developing a research-based, classroom-tested approach to teach for understanding. The multifaceted project involved over 60 teachers in both elementary and high schools and 30 university-based researchers in a variety of studies to examine how best to ensure that students experienced the innovative teaching and learning methods devised during the project. The research was described in *Teaching for Understanding: Linking Research with Practice* (Wiske, 1998) with a companion guide for teachers (Blythe et al, 1998).

TfU is a framework for practitioners which helps teachers to focus on what exactly they want their students to understand, how they help them develop these understandings, how they gauge their progress and provide them with feedback (Perkins, 1998).

The framework is based on four key areas: Generative Topics, Understanding Goals, Performances of Understanding and Ongoing Assessment (ibid). Generative Topics are the overarching goals for the unit of study or course which are presented to students as “throughlines” which help students to see how the topics or themes within a course hang together (Entwhistle, 2001). There are certain criteria which a generative topic must fulfil: they must be central to a domain or discipline; they must be accessible and interesting to students; they must be interesting to the teacher and they must be “connectable” by which it is meant that they are “readily linked to students’ previous experiences (both in and out of school) and to important ideas within and across disciplines (Wiske, 1998). Understanding Goals identify explicitly what it is that the students should understand. The Generative Topic outlines the subject matter whereas the Understanding Goals “define more specifically the ideas, processes, relationships, or questions that students will understand through their enquiry (ibid). The third key idea in the framework, and arguably the most important considering the performance view of understanding on which the framework is based, is that of Performances of Understanding. Performances of Understanding must clearly develop and demonstrate students’ understanding of important understanding goals (ibid). However, Performances of Understanding are divided into three ‘staged’ levels: introductory, guided enquiry and more complex “culminating performances” which afford students the opportunity to synthesise their initial understanding of a particular topic(s) and then

demonstrate, in a progressive way, how these topics interact or connect (Entwhistle, 2001). Wiske (1998) provides a summary of what effective Performances of Understanding should look like. They should:

- Relate directly to understanding goals
- Develop and apply understanding through practice
- Engage multiple learning styles
- Promote reflective engagement in challenging, approachable tasks
- Demonstrate understanding

The final component of the framework is Ongoing Assessment. Assessment should be formative, provide students with feedback about their work and closely related to the clearly defined Understanding Goals (ibid). In providing ongoing formative assessment students are constantly focused on what they are trying to understand and how they are developing their understandings while also providing information for the teacher to use in planning. Again, Wiske (1998) sets out criteria for effective ongoing assessment which should be:

- Relevant, explicit and have public criteria
- Involve frequent assessments
- Gained from multiple sources
- Able to gauge progress and inform planning

Entwhistle (2001) writes that evaluation of the use of the TfU framework, as detailed in the book *Teaching for Understanding; Linking Research with Practice* (Wiske, 1998), showed “very different reactions and interest among teachers”. He continues that some teachers rejected the “whole idea out of hand”, some found the additional effort “it initially imposed too great”, others saw the validity of the framework but felt it offered “nothing new” but there was a “cautious acceptance”, while other groups either persevered and “came to appreciate its value” or “where the approach was fully understood and wholeheartedly embraced by the teacher, students’ reactions were really positive” (ibid). However, aside from a document entitled *Teaching for Understanding in the Secondary English Classroom* from the Department of Education, Tasmania, all of the research findings regarding the TfU framework and its adoption and use by teachers is drawn from the specific experience of its use as part of Project Zero at Harvard University in the context of the North American educational system.

However, The Tapestry Partnership, co-founded by Katrina Bowes and Brian Boyd which “works to make leading edge thinking and research accessible to the education community” (GTCS, 2006) has worked with WIDE World of the Harvard Graduate School of Education, as Keir Bloomer writes in an article for the Times Education Supplement Scotland, “for several years...in order to encourage Scottish teachers to study the online course “Teaching for Understanding” (2011). He continues that “although these courses are available anywhere ... in Scotland, Tapestry provides support meetings and materials that put them in their Scottish context. This role continues over two years to help teachers embed what they have learnt firmly into their practice” (ibid). As a firm advocate of the framework, and current Director of the Tapestry Partnership, he suggests,

“There are many possible approaches to developing depth and understanding, but Teaching for Understanding is one of the best. Many teachers feel that it offers a convenient framework within which to operate.” (ibid)

The General Teaching Council for Scotland recognises completion of the TfU online course as part of their Professional Recognition scheme writing in a press release in 2006 that “A total of 42 teachers will receive Professional Recognition from the General Teaching Council for Scotland following completion of an internationally renowned teaching module run by the Tapestry Partnership and Harvard University” (2006). To date, hundreds of teachers have also attended The Tapestry Partnership master classes on Teaching for Understanding, but as yet there is no Scottish research evidence which looks at how teachers make sense of and use the framework in their daily teaching practice.

1.2 School Context

Wallace Hall Academy is a rural secondary school with six cluster primary schools serving the town of Thornhill and surrounding area in Dumfries and Galloway, southwest Scotland. When the Teaching for Understanding project began in 2009 the school had a roll of approximately 600 pupils and 51FTE teaching staff. The school has three Depute Head Teachers and is organized into five faculties managed by designated Learning Leaders¹ comprising a total of 18 subject teams including the Support for Learning team and three Principal Teachers from the Pupil Support Network (PSN) who work across the faculties to support all pupils and teachers in the different subject departments.

Over the last seven years Wallace Hall Academy has seen a number of important developmental and environmental changes whilst the school staff (with the exception of the School Management Team) and pupil population has remained, by and large, of the same make-up with a majority of teachers having a number of years service with a minority of newly qualified and probationer teachers. Firstly, in 2005 Wallace Hall Academy was awarded School of Ambition (SoA) status. The Schools of Ambition programme was a political education initiative run by the Education and Lifelong Learning Directorate. The programme assisted over 50 secondary schools in Scotland to “undertake initiative for change and improvement appropriate to their local needs and circumstances...to improve the outcomes for all pupils, nurturing their talents, helping them adopt happy and healthy lifestyles, in short, providing them with the skills needed for learning life and work.” (The Scottish Government, 2010). Although the 50 schools supported by the Schools of Ambition programme each had different contexts they all experienced a range of similar challenges which The Scottish Government in their publication Leading Change 2 Learning from Schools of Ambition (2010) grouped under the following headings:

- Building a culture that welcomes change
- Developing the professional capacity of teachers

¹ Learning Leader is the term used to describe Principal Teachers/Faculty Heads at Wallace hall Academy

- Innovating to meet the needs of all pupils

They continue that “the way learning is organised and delivered is most effective when it comes from within schools themselves” (ibid). The key developments that were adopted at Wallace Hall to promote high expectations across the school and to enhance the learning experience for all members of the school community were:

- A firm infrastructure of ICT resources throughout the school
- Class sizes of 20 for all subjects in S1.
- Newly developed courses for all pupils from S1-6 including improved teaching strategies to allow for different learning styles.
- An extensive program of CPD for all staff and development of leadership skills
- Support for teachers to develop educational research skills
- Restructuring of the curriculum to deliver a more flexible curriculum suitable for the 21st Century.

(Wallace Hall Academy School of Ambition Report, 2008)

In practice this meant huge changes for all members of the school community. Starting in August 2005, Wallace Hall Academy embarked upon a series of changes to the curriculum. One of the main changes was for pupils to begin Standard Grade certificated courses in S2 rather than in S3. This led to significant changes to the structure of S1 courses in all subjects. Instead of continuing with the 5-14 Programme studied in the cluster primaries, pupils in S1 began to follow foundation courses in preparation for Standard Grades in S2 and S3. However, different subject teams within the school organised their S1 courses in different ways. The English subject team, for example, revised their course so that it is was more in line with the Standard Grade course using assessment criteria which reflected Standard Grade levels. The Mathematics team made the decision to continue to use resources and assessment criteria based on 5-14 curriculum guidelines to inform their S1 foundation course. Other subject teams made the move away from Standard Grade completely and began to teach Higher Still Intermediate courses from S2. In

essence, there was a major restructuring of the curriculum for certificated classes and an overhaul of all S1 “foundation” courses.

Further to this, from the period 2005-2008, an extensive series of whole school CPD programmes were organised to support teaching staff in their use of new technology, namely, Promethean and Smartboards which were fitted in all classrooms as part of the “firm infrastructure of ICT resources throughout the school” (ibid). Other whole school CPD activities were also implemented to introduce and embed Assessment is for Learning (AifL) strategies in teaching and learning throughout the school. The AifL CPD sessions were conducted in faculty groupings to support cross-curricular dialogue and sharing of good practice. The teaching staff at Wallace Hall Academy had, therefore, undergone a number of changes to the way in which they practiced the art of teaching in a relatively short space of time. Optional in-house ‘leadership’ programmes of CPD were also made available to all staff.

In August 2008 a new Head Teacher took over leadership of the school and was keen to build on the innovations afforded the school through the SoA programme. For the new Head Teacher a commitment to “raising the bar and closing the gap in student education” (Fullan, 2005) was important. Wallace Hall Academy had a reputation for raising the bar but there was a gap in student achievement. As Fullan writes, “schools need to ‘raise the floor’ by figuring out how to speed up the learning of those who are at the bottom for whom the school system has been less effective” (ibid). One of the ways in which teaching and learning was developed at the school as part of the “restructuring of the curriculum to deliver a more flexible curriculum” (Wallace Hall Academy School of Ambition Report, 2008) and to close the gap in achievement was with the birth of The Queensberry Initiative:

The Queensberry Initiative is a school and community undertaking, linking Wallace Hall Academy, its cluster primaries in Mid-Nithsdale, local businesses and third sector enterprises and the Queensberry Estate, a local country estate with extensive outdoor opportunities. This all began back in 2008, with the Parent Council looking for a way to support pupils in making better

connections with their local communities, increase their employability and improve their health and well-being by getting them outside, making use of the opportunities on offer for the 'outdoor classroom' at Queensberry Estate. (Kirby, 2010)<http://www.queensberryinitiative.com>

This successful initiative fostered many small scale cross-curricular projects within school, established productive links with the community and local businesses and has helped to encourage staff to be increasingly innovative in their day-to-day practice by making use of the opportunities afforded by the 'outdoor' classroom.

As well as a new Head Teacher, new Senior Management Team and new curriculum design, the school staff moved to a new school building in January 2010. The staff at Wallace Hall Academy had seen a number of changes to practice, to the school curriculum, to the organization of their school hierarchy and to the physical environment in which they worked. These changes had a big influence on the timing of the Teaching for Understanding project at Wallace Hall Academy.

The project was led by the Head Teacher as a whole school initiative to adopt the TfU framework to improve learning and teaching across the school, to improve consistency of planning across the school and to increase collaborative practice among the staff. Ten one hour long whole school CPD sessions were planned over the course of the school year which would take place instead of whole school staff meetings after school. The whole school CPD sessions were linked up with time for staff to plan, reflect and implement TfU units of study. Further time was also to be given over to the project during one of the school's in-service days. Initially, teachers were organised in cross-curricular teaching teams to encourage teachers to work with teachers outside their subject areas. The TfU project would involve teacher planning and implementation of individual units of work using the framework for a curricular topic of the individual teacher's choice with any year group/class. Also, staff members were organized into cross-curricular teams to plan collaboratively and implement cross-cutting units of work on the following topics: Gender Issues, Citizenship, International Education, Numeracy, Literacy, Anti-

Bullying, Environment, Health and Wellbeing and the Queensberry Initiative. The cross-cutting groups would also act as discussion groups for teachers to reflect on their progress through the CPD sessions and their use/adoption of the TfU framework.

However, during this time period the school staff were also preparing for the implementation of Level 3 Outcomes and Experiences of Curriculum for Excellence which would commence the following summer. Therefore, some of the planned in-service time during that session had, through necessity, to be given over to Local Authority and cluster preparation meetings. Further to this, informal feedback from staff suggested that they were having difficulty meeting the demands of the project due to lack of time, the heavy workload of daily classroom teaching and the need to prepare for a move to a new school. The decision was taken, therefore, to pare back certain aspects of the planned project. The decision to ‘drop’ the cross-cutting work in collaborative groups was made. Teachers would work individually on curricular planning using the framework as an organizing principle for their teaching as this was deemed the easiest way for staff to ‘make sense’ of the framework. The cross-curricular groups would still be used to facilitate group reflection, but by and large, the planning and implementation of units of study was carried out by staff individually. No cross-cutting planning took place but staff did share their individual plans with members of staff from other subject areas via these cross-curricular groups at the CPD sessions. Each member of staff was given a copy of *The Teaching for Understanding Guide* (Blythe et al, 1998) and a folder to organize paper resources from workshops led by the head teacher.

A final innovation which was part of the school’s Transformational SoA plan that has a bearing on this current research project was the “support for teachers to develop educational research skills” (Wallace Hall Academy School of Ambition Report, 2008). With support from the University of Glasgow three action research projects were completed as part of the school’s transformational plan. The projects looked at the following areas: Target Setting, Use of Scholar and Collaborative Practice at Transition between Primary and Secondary. An Action Research Group was set up in order for the ‘teacher researchers’ to support each other in this unfamiliar territory of scrutinizing their own practice, and that of their colleagues, in a formal way as

opposed to informal reflection and discussion. Research findings from the SoA research projects and from mini-research projects conducted in school were shared with staff at whole school meetings and published via GLOW, on the school's web site and nationally via SoA literature. The new Head Teacher was keen to support and develop the work of the teacher researchers at Wallace Hall and to build on and learn from the recommendations of the small action research projects that had already been carried out. The Primary/Secondary Transition Research Project had involved six teachers from different subject areas and cluster primary schools working collaboratively across the sector divide in order to increase teachers' understanding of learning and teaching across the primary/secondary boundary and to raise awareness of pupil progress in a subject area in P7- S1. Whilst all participants of this project had found the experience to be valuable and important changes to practice had resulted there were some recommendations that influenced the Head Teacher's design of the whole school Teaching for Understanding project.

The Primary/Secondary Transition project recommended that:

- time is needed for teachers to maintain the existing partnerships that have been established as a result of this project
- other teachers need to be given the opportunity to work collaboratively in order to deepen their understanding of their primary/secondary colleagues work
- primary and secondary teachers need to engage in meaningful shared CPD activities related to learning and teaching
- there must be a whole cluster desire and commitment to practically improve transition arrangements in order to make a real difference

Bearing in mind these recommendations (time for teachers to undertake the project whilst fulfilling their role as busy classroom teachers, giving staff opportunities to work together in shared CPD activities and working together as a whole staff group) this current action research project was undertaken with support from the General Teaching Council of Scotland under the Teacher Researcher scheme and the following methodology was employed.

2. Methodology

The initial research methodology was designed to try to ensure that there was breadth and depth in the investigation. Research indicates that changes in teachers' thinking and changes to teachers' practice take time (Wiske, 1998; Prestage et al., 2003). Consequently, a year long enquiry across three school terms during the session 2009/10 was planned using the following five main methods of enquiry: a questionnaire, teacher focus groups, semi-structured individual interviews, researcher field notes and analysis of classroom artefacts (teacher resources and pupil products). The initial proposed methodology outlined here was refined as the project developed.

A preliminary questionnaire was distributed to all 51 FTE teachers at Wallace Hall Academy in September 2009 just as the whole school TfU project was getting underway. It was designed to try to ascertain teachers' current values and practices regarding a number of issues surrounding the TfU project at the school. The questionnaire focused on current practice with regard to assessment, planning curricular units of study, collaborative practice within the school, whether teachers saw themselves as learners and what they thought about the learning culture within the school. A further section of the questionnaire included questions about what teachers knew about the TfU framework at the beginning of the project and biographical information regarding teachers' professional roles, the nature of their current posts and their years of service within the profession (see Appendix 1). The questionnaire was used at this early stage of the project in order to build a baseline picture of practice in the school against which any changes in teaching and learning could be measured as a result of use of the TfU framework. Out of the 51 questionnaires given out 34 questionnaires were returned.

Teachers planned curricular units of study using the TfU framework planning sheets distributed by the Head Teacher (see Appendix 2). Plans were shared in cross-curricular groups but there were no focus group interviews carried out as the cross-

curricular planning aspect of the project was removed from the project. During this time period the school staff were preparing for the implementation of Level 3 Outcomes and Experiences of CfE which would commence the following summer. Therefore, some of the planned in-service time during that session had, through necessity, to be given over to Local Authority and cluster preparation meetings. Further to this, informal feedback from staff suggested that they were having difficulty meeting the demands of the project due to lack of time, the heavy workload of daily classroom teaching and the need to prepare for a move to a new school. The decision was taken, therefore, to pare back certain aspects of the planned project. The decision to 'drop' the cross-cutting work in collaborative groups was made. Teachers would work individually on curricular planning using the framework as an organizing principle for their teaching as this was deemed the easiest way for staff to 'make sense' of the framework. The cross-curricular groups would still be used to facilitate group reflection, but by and large, the planning and implementation of units of study was carried out by staff individually. No cross-cutting planning took place but staff did share their individual plans with members of staff from other subject areas via these cross-curricular groups at the CPD sessions. Each member of staff was given a copy of *The Teaching for Understanding Guide* (Blythe et al, 1998) and a folder to organize paper resources from workshops led by the Head Teacher.

TfU units of study were taught during the autumn term session 2010/11, with some units being taught in the spring of 2011 because of issues with timing of rotations of classes. Six staff from different curricular areas, different hierarchical positions within the school and from different points in the professional life cycle participated in individual semi-structured interviews. An interview schedule (see Appendix 3) was used which was formulated from the initial research questions and the areas of focus from the preliminary questionnaire, namely: changes to planning, implementation, pupil learning and behaviour, collaboration with colleagues, and teachers' own learning following use of the TfU framework.

Full transcripts of the interviews were prepared and returned to the respondents for accuracy checks and as a prompt for further reflection prior to the analysis of interview data. Interview data was analysed using Weft QDA a free open-source qualitative data analysis tool. Certain themes emerged from the analysis of the interview data, namely issues regarding:

- the central ideas underpinning the TfU framework
- impact on practice (reflective practice and changes to classroom practice)
- autonomy and creativity
- terminology of the TfU framework
- time given to complete the work of the project and timing of the project
- TfU and Curriculum for Excellence

Using the themes that had emerged from the individual interviews a final questionnaire was designed which used the themes headings as prompts for teaching staff to reflect on the TfU project as a whole: what would teachers at Wallace Hall Academy take from this project and what changes had participation in this project made to their teaching. The second questionnaire did not require staff to give any biographical information regarding their career phase, role within the school or teaching subject in order to protect staff anonymity as this had been raised as an issue by some staff members in response to the first questionnaire. 44 questionnaires were issued and 17 were returned.

3. Findings

3.1 Initial questionnaire

The whole school staff, of 51 teachers, was surveyed and 34 teachers returned completed questionnaires. In terms of length of service in years there was a fairly even return from teachers from different points in their professional life cycle (see Figure 1).

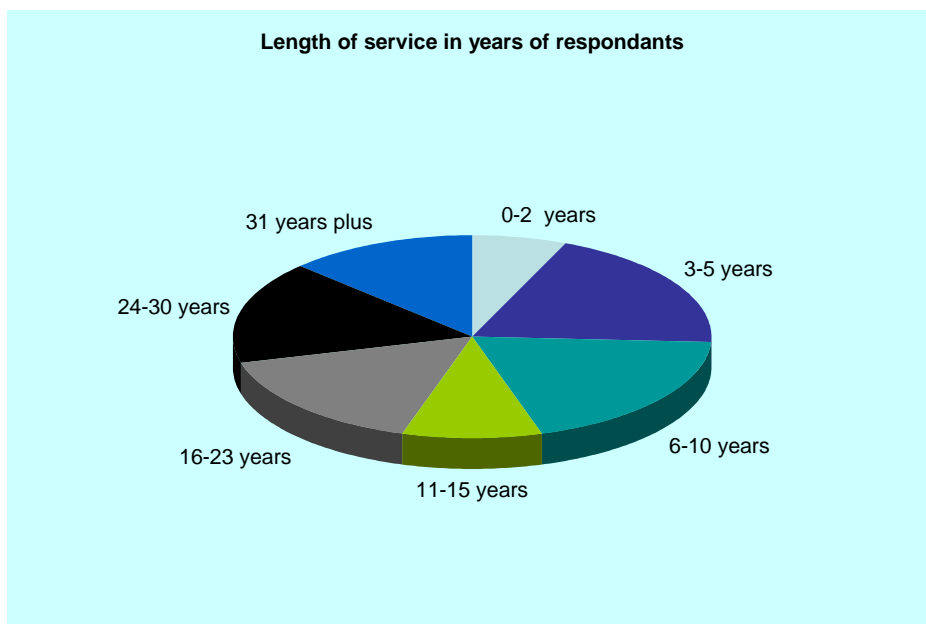
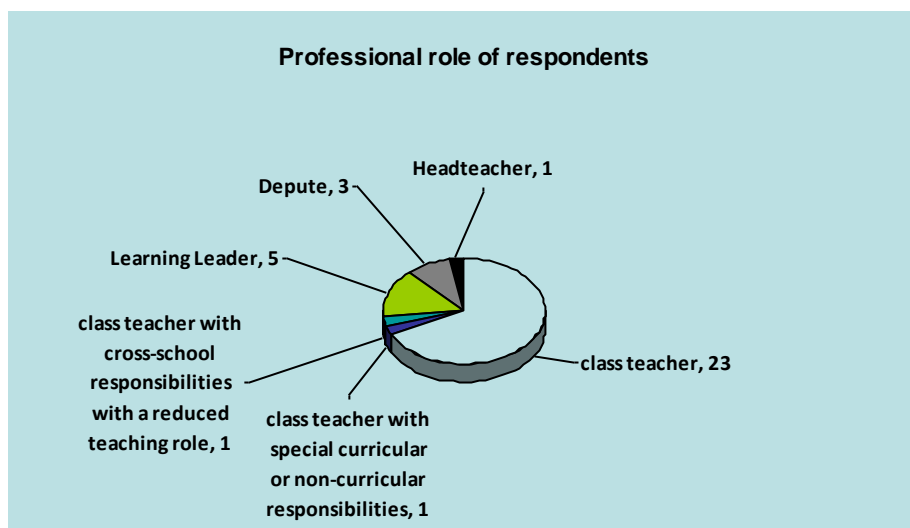


Figure 1

Responses came from teachers with different professional roles within the school but the majority of responses were from unpromoted class teachers with no other curricular or non-curricular responsibilities (see Figure 2).

Figure 2



Analysis of data from the questionnaire showed interesting results with regard to practice within the school before the TfU project had begun properly regarding planning, working collaboratively with colleagues, professional learning and the learning culture within the school.

3.1.1 Planning

The questionnaire sought to discover what methods teachers used to plan lessons/units of work. *Table 1* shows their collated responses.

Planning I regularly plan lessons/units of work in the following ways:	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
making a unit booklet	10	13	1	6	3
using grid plans	3	15	2	10	3
through discussion with colleagues	9	18	1	5	0
thinking about a topic by myself	17	15	1	0	0
with pupils	1	9	6	14	2
trial and error	5	14	2	9	3

Table 1

The figures suggest that teachers use a variety of methods to plan units of work ranging from ‘making unit booklets’ to ‘trial and error’. There was no one method of planning which was universally employed by those who responded to the questionnaire. The results show that most teachers who responded planned topics by thinking about a topic on their own (32 agreed) and through discussion with colleagues (27 agreed). This suggests that there was a certain level of collaboration with regard to planning prior to the TfU framework being adopted by staff. The questionnaire also left a space for teachers to make ‘additional comments’ with

regard to how they planned units of work. Comments given were largely concerned with teachers individually tailoring planned units of work to particular class groups, to cater for individual pupil's learning styles or to take in to account topical events. The difficulty of planning collaboratively because of lack of time or individual teachers' teaching styles was also acknowledged. On the whole, however, the responses showed that a variety of methods were adopted across the school to plan units of study with the results illustrating a combination of discussion with colleagues and working individually on a topic as being the most frequently used methods of planning.

3.1.2 Working collaboratively with colleagues

This section of the questionnaire sought to ascertain teachers' beliefs and practices with regard to working collaboratively and it also yielded some interesting findings (see Table 2).

Working collaboratively with colleagues – I regularly work collaboratively with colleagues in the following ways:	Strongly Agree	Agree	Unsure	Disagree	Strongly disagree
Planning lessons/units of work together	4	11	3	12	2
Observing each other teach	1	11	3	15	3
Discussing pupil behaviour	9	22	1	2	0
Discussing pupil learning	5	25	1	3	0
Discussing professional learning	3	18	3	10	0
Reflecting on practice together	6	20	5	3	0
Cross-curricular planning/teaching	1	7	4	19	3

Table 2

As can be seen from the above, teachers were fairly evenly split about whether they planned lessons/units of work together with a total of 15 respondents agreeing with

this statement and 14 disagreeing while 3 remained 'unsure'. The data regarding 'Planning' (detailed in the previous section) showed that the majority of teachers stated that they planned 'Through discussion with colleagues' yet when asked if they 'Planned lessons/units of work together' there was a fairly even divide of opinion. This possibly suggests that while there is much *discussion* about planning there is less actual collaborative planning where teachers are able to thrash out the actual details of units of study together.

However, the majority of respondents did agree that they worked collaboratively discussing pupil behaviour, pupil learning and discussing their own professional learning and reflecting on practice together. Whilst there was some cross-curricular planning (a total of 8 respondents either agreeing or strongly agreeing with this statement), the majority of teachers (22 respondents disagreeing or strongly disagreeing) felt that there was little collaboration across subject areas. Nearly all 'additional comments' revealed teachers' desire to work collaboratively, but this was often frustrated by practical issues.

The responses to this section of the questionnaire show that whilst there was much collaborative practice in relation to discussing pupil behaviour, pupil learning, discussing professional learning and reflecting on practice there was little collaborative planning and teaching actually carried out probably because of time restrictions in busy teacher schedules and/or limitations in opportunities for collaborative work across subject areas because of timetabling issues. Those teachers who were involved in collaborative practice across the school because of the nature of their remit found it to be a rewarding experience.

3.1.3 Professional Learning and Learning Culture within the School

Professional Learning

The section of the questionnaire which asked for teachers' beliefs and practices regarding 'Professional Learning' yielded very positive results (see *Table 3*).

Professional learning	Strongly Agree	Agree	Unsure	Disagree	Strongly disagree
I regularly think about my own learning as a means of improving how I teach.	14	14	5	1	0
I am still a student of my own subject.	15	16	2	1	0
I regularly generate new materials and teaching approaches.	12	17	4	1	0

Table 3

Nearly all teachers responded positively by either strongly agreeing or agreeing to each of the three statements. It can be concluded from the above that teachers within the school highly valued their own professional learning in that they regularly reflected on their own learning as a means of improving how they taught. The majority of respondents saw themselves as students of their own subjects and they regularly generated new teaching materials and approaches. Additional comments from this section of the questionnaire highlighted time as an issue with regard to professional learning with one teacher suggesting there is “not enough time to do all of the above properly”. There was also a comment regarding the generation of ‘new teaching materials and approaches’. It was suggested that they “may not be obvious all the time”. This implies a certain invisibility about new teaching materials/teaching approaches that may well be produced during the teaching and learning experience which are not formally documented in written plans or lesson/unit evaluations.

The Learning Culture within the School

The final ‘tick box’ section of the questionnaire sought to ascertain teachers’ beliefs and practices regarding the learning culture within the school. Again, this part of the survey yielded some notable results (see *Table 4*).

The learning culture in the school	Strongly Agree	Agree	Unsure	Disagree	Strongly disagree
1. Pupils are clear about the purposes of what they are learning	1	16	13	4	0
2. Pupils are helped to become independent learners.	2	10	14	8	0
3. Throughout the school, people research, inquire and reflect critically on practice.	2	11	14	5	0
4. Teachers are open to change, but critical as to what is most important in terms of learning.	4	16	12	2	0
5. Teachers in the school learn together, exchanging ideas and practice.	1	12	15	5	0
6. There is a strong ethos of mutual support.	4	13	11	4	2
7. People talk about and value learning, not just grades, marks and test scores.	2	12	10	10	0
8. This school is characterised by people deciding and acting together.	2	8	15	8	1
9. There is a strong shared sense of where we are going as a school.	2	11	12	7	2
10. All staff have opportunities for continuing professional development.	13	20	1	0	0

(Taken from *Learning How to Learn: Tools for Schools* James et al, 2006) Table 4

On the whole teachers were fairly positive about the learning culture within the school as evidenced by the greater number of responses either agreeing or strongly agreeing with the given statements. This supports the notion that a number of teachers within the school generally valued learning and working together.

However, there are a number of respondents who are 'unsure' about a number of statements particularly those surrounding deciding, working, acting together as a whole school community. Taken together, the results from the Professional Learning section of the questionnaire, and the Learning Culture within the School section, point towards the notion that whilst staff individually value their professional learning highly and generate new teaching materials and approaches individually,

there is some doubt as to whether the staff as a whole school body *learn* together as a unit.

Other findings from this section of the questionnaire, which have some bearing on data gleaned from individual staff interviews which are discussed in the next section of this report, show that the majority of the teachers who responded to the survey agree with the following statements:

- *Pupils are clear about the purposes of what they are learning*
(17 respondents either strongly agreed or agreed with this statement)
- *Teachers are open to change, but are critical as to what is most important in terms of learning*
(20 respondents either strongly agreed or agreed with this statement)
- *All staff have opportunities for continuing professional development*
(33 respondents either strongly agreed or agreed with this statement)

3.1.4 Understanding of the Teaching for Understanding Framework

The penultimate section of the questionnaire sought to gather a baseline of views/opinions about the TfU framework against which to measure evolving staff understanding of the project during its implementation. Although nearly half of the respondents left this section of the questionnaire blank, the responses that were given to these questions, at the start of the project, highlight themes that became important issues for staff as the project developed. Below is a summary of the responses that are discussed further in the analysis of interview data section of this report:

1. *What do you understand the Teaching for Understanding Framework to be?*

Those who responded saw the framework as a “framework for planning”, as a “way of organising ideas”, as something which would lead to “increased emphasis/focus on pupil”, as “not teaching towards exams/targets” or simply as “structuring what we already do”.

2. *What do you see as the potential benefits to yourself as a teacher through the adoption of the framework?*

The majority who answered this question responded with comments that pointed towards increases in “innovative practice”, more “enjoyment” and “confidence”, more “cross-curricular collaboration/cross cutting themes” and an “increased understanding of the work of others”. Some responses sceptically questioned if there was a “hidden curriculum” while others suggested that it was simply a “rehash of old techniques”. This mixed response was reflected in responses given in the individual interviews which took place as part of the research project and are discussed in more depth in the next section of this report.

3. *What do you see as the potential benefits to learners through your adoption of the framework?*

All comments given were positive and showed that some teachers had high hopes for changes to practice through adoption of the framework. The potential benefits to learners as seen by those who responded were:

- **freedom for creativity**
- changed ethos
- more consistency in learning and teaching
- **increase in depth of pupil understanding/insight**
- **increase in pupil independence/control/confidence**
- improved continuity between subjects

Some of the above responses became important issues for the teachers who were individually interviewed later in the project. The responses highlighted in the list above were either supported or negated by the experiences of the individual teachers who took part in the interviews. Again, the issues surrounding these areas are discussed in more detail in the next section of this report.

4. What do you see as the potential inhibitors to teachers' adoption of this approach?

Of those who responded to this question there were four issues that were seen as potential difficulties to adopting the framework.

- time
- lack of sustained focus on initiative – “next big thing then forgotten”
- the “content loaded exam system” – driven by targets/tests/exams
- staff “attitudes”, “flatness” and “confidence”

Again, each of the four potential inhibitors to adoption of the framework that were given by questionnaire respondents were borne out in individual interviewees' responses to questions in the staff interviews.

In summary, analysis of the initial questionnaire which was designed to try to establish a picture of practice before the TfU framework was adopted by staff in their planning and teaching of units of study showed the following:

- a variety of methods were used by all staff to plan units of study
- while there was some collaboration between staff with regard to planning (including discussion of pupil behaviour and learning) this was largely an activity that was actually undertaken by most teachers individually
- there was evidence of collaborative discussion taking place across the school but it was largely focused on discussion of pupil behaviour/learning or professional reflection with little collaboration across subjects or even within subject teams due to lack of time and timetabling restrictions

- teachers saw themselves as learners and some felt there was a strong learning culture within the school with three main areas of agreement being identified: pupils being clear about what they are learning; teachers being open to change but critical as to what is most important in terms of learning and nearly all respondents (with one exception) felt they had opportunities for continuing professional development
- some staff foresaw potential benefits to learners but there were a number of issues identified as potential inhibitors to teachers' adoption of the approach which were borne out in individual interviews

3.2 Interview Findings

This section of the report presents and discusses the findings from the six interviews conducted. In order to address the research questions interviewees were teachers drawn from different points in their professional life cycle, they had different roles within the school hierarchy and were from different subject areas. They included an experienced Learning Leader (Teacher 1), a less experienced recently qualified Learning Leader (Teacher 2), a Chartered Teacher (Teacher 3), an experienced classroom teacher with whole school responsibilities (Teacher 4), a classroom teacher with 7/8 years experience (Teacher 5) and a recently qualified classroom teacher with 3/4 years experience (Teacher 6). Each of the six teachers came from different subject areas/faculties: Science, History, Modern Studies and Geography, English and Modern Languages, Physical Education and Design and Technology.

Six themes emerged from the responses to the semi-structured interviews:

- Underpinning ideas
- Impact on Practice
- Autonomy and Creativity
- TfU terminology
- Time and Timing
- TfU and Curriculum for Excellence

3.2.1 Underpinning Ideas

Universally, the six interviewees either implied or explicitly acknowledged the value and importance of the underpinning ideas of the TfU framework: that teaching for *understanding* rather than transferring knowledge was important in their classroom practice. This was qualified in different ways by teachers from different phases in their professional life cycle and with different professional roles. In one case the subject area of the particular teacher was a big influence on how easy to was to

embrace the framework and use it in the planning and teaching of their unit of study. For Teacher 6 Teaching for Understanding was an integral part of their identity as a teacher and the underlying principles of the TfU framework fitted neatly with their subject area:

At some stage of every teacher's career I would like to think that subconsciously or consciously they would implement Teaching for Understanding in the classroom...There's a difference between attaining knowledge and attaining understanding and being able to link what you are learning to other things...it's definitely worthwhile in P.E. because bridging the gap between knowledge and understanding in P.E has been an ongoing battle for lots and lots of years... So, TfU I suppose would be a very useful tool.

When asked what factors helped to implement the TfU framework Teacher 6 suggested that a prior understanding of the principles of the framework gained through exposure to TfU during Initial Teacher Education (ITE) was helpful:

I suppose because I'm recently out of university, four years or so, we covered a block on something very similar in our fourth year at university. It was called 'Teaching Games for Understanding'... I had a kind of general idea of what I was trying to achieve anyway.

For Teacher 2 there were some resonances with the idea that proximity to ITE led to an 'easier' appreciation of the underpinning ideas of the TfU framework, but this was not seen just as positively as the teacher from P.E. as they felt their existing 'grid plans' already encapsulated much of what the framework highlighted as good practice:

It was good to go back and recap over certain sides of 'How do you teach it? Why do you teach it? What do you do to know that you've taught it?' It was good to go back and recap that but being a younger member of staff a lot of it is still fresh in your mind because you're not that long out of university and you're not that long having gone through new things in departments and taking on new ideas ... I can see the purpose of the whole project because it got you to really, really think about your planning, your teaching methodologies and then look at the evaluation of what you've done. However, I don't feel it was any different to my normal grid plans and what I already had in existence prior to undertaking TfU.

For the more recently qualified teachers interviewed there was an acknowledgement of the value of the underpinning principles of the TfU framework

with both teachers suggesting that their recent exposure to ‘new’ ideas during ITE was helpful in understanding the framework. However, the nature of one teacher’s subject meant that the framework slotted more easily into their everyday practice while the rigorous ‘grid planning’ and evaluation of units of study of Teacher 2 was seen as already embodying the substance of the TfU framework.

The more experienced teachers who were interviewed also acknowledged the importance of understanding as opposed to simply transferring knowledge. Teacher 4 articulates this clearly:

The underpinning idea that understanding is more important than other behaviours or things that may be going on ... I think is actually very important, and I found the initial stages of the project probably more valuable because that was the focus. I think really trying to get people to realise, getting pupils to memorize things or copy things or different low level kind of activities isn’t really where we’re aiming to get them, but we’re aiming to get them to understand something rather than just even know it. I thought that was true, and it did give me food for thought in the initial stages as a sort of important concept, but I think that a lot of the work that I was doing, not just for this particular unit organizer, but other work I was doing at the time as well, I felt that what I was doing kind of measured up reasonably well to that ideal.

For this teacher there is again a clear endorsement of the principles underpinning the TfU framework, but there is also a clear suggestion that understanding as an “important concept” was fundamental to their own teaching practice already. The same view is mirrored in responses from Teacher 5, Teacher 3 and Teacher 1 who gave a number of similar comments to that of the above, but all of these teachers qualified their support for the framework by pointing to other factors which were issues of contention with adopting the TfU framework. These will be explored in more depth in the following sections of this report.

For Teacher 3 there were “useful check points in there” that were perceived as being helpful for newer entrants to the profession:

I think it’s very good in terms of, potentially, a new teacher, ‘Ok, am I doing this? Am I doing this?’, but I think once you’ve done it a while and as long as you’re being conscientious and not somebody who’s saying, ‘I know how to

do this. I don't want to change things. I've got my set method', which as a Chartered Teacher I wouldn't do anyway.

Again, there is the suggestion that TfU is a fundamental part of teaching and learning but, instead of being attributed to proximity to ITE, it is borne out of experience and part of the make-up of the "conscientious" teacher.

For Teacher 3 the framework, "didn't introduce many new thought processes...it was just fitting what I already did into a new language in a respect." The view of Teacher 4 supports the idea that the framework was simply a reframing of work already fundamental to their practice, "I found myself just matching up things that I was going to do and the sequence I would have done it in. I didn't really alter that in any way, so I didn't think the TfU framework was a great influence on what I did on this particular occasion."

For these experienced teachers there is an implication that current practice is already satisfactory in terms of TfU and while they acknowledge the importance of the fundamental principles of the TfU framework, changes to practice are not perceived as really necessary. Priestley et al (2010), in writing about the key themes in educational change, suggest that there has been a "tsunami-like onset of innovation" in recent years with educational professionals witnessing an "intensification in the pace and volume of reform efforts". Indeed this has been the experience at Wallace Hall Academy as detailed in the School Context section of this report. Priestley et al (2010) go on to suggest a number of reasons why innovation and centrally driven reform are often not wholly successful and cite Swann and Brown who suggest that curriculum innovation is notable for its high rate of failure with the fault often lying in a failure to take into account teachers' current practice (1997 cited by Priestley et al, 2010). The initial questionnaire undertaken as part of this current study showed that there were already a number of different methods used by teachers to plan units of study and the interview responses suggest that understanding was already an important principle valued highly by all interviewees. Perhaps the less than favourable responses to the TfU framework shown by some of

the experienced teachers at Wallace Hall Academy are a reflection of the failure to take in to account the fact that existing practice was perceived to be already adhering to the principles of good practice as suggested by the TfU framework. An audit of current practice at the start of the project may have influenced its implementation.

Priestley et al (2010) go on to suggest that “teachers may prefer the security of familiar routines and practices or fail to see the supposed relevance of proposed reforms”. They continue that “in such cases, the tendency to tweak reforms to fit such routines and practices is commonplace” (ibid). Research into other change initiatives in Scotland (referring to Assessment is for Learning policy – Priestley et al, 2005) “highlights the tendency for pedagogic strategies to be adopted rather superficially by many teachers to tick the policy boxes, whilst the big underpinning ideas are not fully understood” (ibid). The evidence from this current research project tentatively points towards the fact that the underpinning ideas of the TfU project were implicit within the beliefs of the teachers interviewed but a superficial engagement with the framework took place perhaps because of the two factors that are significant in determining the extent to which engagement with change occurs, namely,

the relevance of a policy, especially whether it addresses a perceived problem; and evidence of its effectiveness, for example in terms of student attainment. (Dunn Schiffman et al 2008, cited by Priestley et al, 2010)

Certainly this view of perceived relevance was also an issue for some teachers who returned the second questionnaire at the end of the whole school project at Wallace Hall Academy. A number of responses from this questionnaire supported the views of the experienced teachers who were interviewed. One teacher suggested, “These ideas were underpinned before TfU”, while another wrote, “Much of what is already done fits the framework”. The idea of perceived relevance was most forcefully articulated by one respondent with the words:

Found being forced to do TfU patronising. Took no account of experience of staff – relatively new staff would possibly get more out of it...for me, overall, a de-motivating experience.

At the other end of the spectrum of responses from the second questionnaire there was one response which adopted the language of the TfU framework and seemed to imply full endorsement the principles therein:

Focus on the development of the generative topics which allow multiple connections to be made across the subject and the curriculum as a whole and focus on performances of understanding which allows pupils to demonstrate in-depth knowledge by applying the 'theory' to diverse contexts.

The second factor proposed by Dunn Schiffman et al (cited by Priestley et al, 2010) with regard to evidence of effectiveness of a particular innovation/policy was also an issue for two of the teachers interviewed as part of this current project. This will be looked at more closely in the Impact on Practice section of the interview findings.

In summary, it can be seen that there was universal agreement with the underpinning principles of the TfU framework by the teachers who were interviewed, and this was also reflected in some responses from the teachers who returned the second questionnaire. However, while the recently qualified teacher fully embraced the framework because it lent itself to their subject, other more experienced teachers felt that their current practice already embodied the principles of TfU and there were, therefore, issues of relevance for them.

3.2.2 Impact on Practice

From the interview data themes emerged with regard to impact on practice which can be categorised under two headings: reflective practice and changes to classroom practice. For three of the six teachers interviewed there were clear changes to classroom practice which could be attributed, to a greater or lesser degree, to use of the TfU framework. For the three other teachers interviewed there were no discernible changes to practice that could be attributed solely to use of the framework. All of the teachers interviewed acknowledged that they had been encouraged to be more reflective as part of the experience of the TfU project, but for the more experienced teachers this was seen as standard good practice.

For Teacher 2 reflecting on existing practice was the most valuable part of the TfU project, but it did not lead to actual changes to practice in the classroom. They felt that reflection on practice, particularly planning, confirmed their belief in the value and quality of plans already in existence:

It was good to go back and review ideas...to reflect on why you do what you do and should you be doing what you are doing and are the things of benefit to the students in front of you. But, I would hope that with the things in place for my various courses that that would come through and I do change the courses every year depending on the feedback and evaluation I get from the students. So maybe it gets me to reflect more so on it. How much it actually influences what I do or what I change? I'm not convinced that it really does influence that much.

Teacher 1 and Teacher 3 held similar views with regard to reflection but suggested that this was something that they did anyway.

For Teacher 6 using the TfU framework was a very positive experience which led to a more pupil centred approach to teaching and learning in the classroom where pupils were actively assessing their own performances throughout the unit of study:

The main thing that I did differently in this block was to introduce more competition, individual competition so pupils were setting goals for themselves at the start at the middle and at the end of the block. They were also competing with themselves, within groups as well. So it provided more

of a 'motivation climate' and the reason I did that is because I wanted them to understand how their level of understanding could change at the start, the middle and at the end through competition...lots of pupils are good at performing, but they don't really understand why they are good at performing or why they are not. So, Teaching for Understanding allowed them to make that link, I suppose, a little better and more frequently.

As discussed in the previous section 'Underpinning Ideas' this classroom teacher felt that their subject "lent itself well" to the framework and they already had prior experience of thinking about classroom activity through the lens of TfU principles. Perhaps because of this there were marked positive changes in pupil behaviour and attainment:

I thought it was very valuable for a number of reasons. The first reason was the level of interaction that the pupils were having with each other and with the lesson outcomes and with their work. They were more engaged with what they were trying to achieve on a lesson to lesson basis, but also on a longer term basis because it was a little bit different, and there's more interaction with each other and with the teacher as well, to a certain extent, and I found that of real value...no-one was on an A before, and I had three As, performance level, marking them with the exact same criteria.

Teacher 5 also noted changes to practice as a result of using the TfU framework, but there was some qualification as to whether this was entirely due to use of the TfU framework or whether there were other factors at work:

I think it has allowed me to go back and make lessons a bit more exciting...I think in some cases it affected [pupils'] enthusiasm...it was making me think of other ways to teach rather than just here's a worksheet, let's complete that. I told them we were going off to do a wee research task, and I gave them choice. Again, is that CfE or TfU? What they came back with was great. I'd never done that before, and again, that was letting me see what they were taking from my lessons, finding out more with and then presenting back and that was good.

The teacher questions whether the planned changes to their unit of study and changes in pupils' enthusiasm for learning can be measured in terms of adoption of the TfU framework in isolation. The teacher refers to CfE in this example. This was an issue for a number of teachers who were interviewed and the next section of this report looks more closely at that theme. The point here raises the issue of whether changes to classroom practice can be attributed to one particular factor when the

environment of the classroom is so complex. Any attempt to quantify changes in pupil learning or pupil behaviour is dependent on a number of different factors.

For Teacher 4 this was an important issue. When asked what evidence there was that their use of the framework affected pupil learning their response was:

I think that's probably a difficult question to answer because you obviously teach your unit to one group of people and then you teach your unit to another group of people and even if you think you've done the same unit of work or approached things in exactly the same way the outcome will never be the same, and indeed in my subject, the outcomes will vary quite considerably from one individual to another. So, I don't think I've got any evidence that the work being done in connection for the TfU framework would have influenced the quality of outcomes for the pupils one way or another.

Entwhistle (2001) suggests that one of the limitations of the performance view of understanding, on which the TfU framework is based, is that the emphasis is on how the subject matter is organised by the teacher and presented to students with "very little being said about the interactions that take place between the teacher and the class". He continues that,

Students differ profoundly in how well prepared they are to recognise the way different assignments hang together in contributing to a better grasp of the content area. The combination of the opportunities for developing understanding designed into the curriculum and the way the teaching and learning materials are presented (method and climate) will together affect the quality of the understanding. (ibid)

For Teacher 4 the "results" of the unit of study planned and implemented using the TfU framework were good, but whether this was due to use of the TfU framework was debateable:

I was satisfied with the outcomes from pupils...it does stand up as one of the better pieces of work over the two years of the course. They [did other work] as part of the of it as well which we did in the way that I outlined here (refers to unit planner) and some of those were very good, but again, whether the way I outlined it here is really that different fundamentally from the way I would have previously done it, I don't really know.

From the two examples above it can be seen that there is a difficulty in separating out influencing factors which affect pupil motivation and attainment. It may well be that use of the TfU framework affected learning alongside other strategies employed by the teachers in this study.

This was certainly the experience of Teacher 1 who felt that other factors made more of an impact on their teaching:

I feel that I was, at that time, and as I still continue to be, so immersed in AifL that I was desperately trying ... I was wanting to look at different forms of assessment, that was having a great impact on my teaching anyway, so I would say my lessons went fine. I was very happy with pupil behaviour, I was happy with pupil interaction, I was very happy with pupil learning, but was it all down to TfU? No, it wasn't because, as I say, I think AifL has a far greater impact on me as a teacher. It was unfortunate from that point of view because I felt at times that the TfU was conflicting with my AifL stuff, and at times I wasn't quite sure...is this AifL or am I doing this for TfU or is it both? So, it's difficult to quantify that."

As well as the point that it is difficult to attribute changes in pupil learning to one individual factor, another issue is highlighted in the response from Teacher 1. This is the lack of synthesis for this teacher between AifL strategies that were already established in the classroom and the TfU framework which has 'ongoing assessment' as one of the four key areas of its design. The Tapestry Partnership suggest that TfU helps to "embed the principles and practice of Assessment for Learning and to identify how teachers will be sure that their learners understand the learning outcomes." (2009). However, it was this teacher's experience, in making sense of the framework, that having to "fit" their existing practices to a new format led them simply, to confusion:

I used my own knowledge to help me clarify and understand what I was supposed to be doing with TfU, I felt there was considerable overlap between what I had done in the past and what I was now being asked to do, which in some ways helped me but as a busy teacher I kept asking myself why am I doing it this way?

Hayward et al (cited by Priestley et al, 2010) attribute part of the success of Scotland's AifL formative assessment project to that fact that it provided guidance

for schools without being over-prescriptive. For this teacher the TfU framework seemed to be “asking for the obvious” and the teacher felt they, “had to write it down”. In comparison to AifL strategies, which for this teacher seemed to serve the same purpose, the TfU framework was over-prescriptive and time consuming. Perhaps for explanation it is possible to turn to Eisner (1992, 1996 cited by Priestley et al, 2010) who suggests that there are a number of stability factors that “explain an apparent lack of change in schooling” including “strongly internalised images of teachers’ roles and attachment to familiar routines”(ibid). For Teacher 1 there was a strong attachment to existing practices which already “worked” in their learning and teaching, and as a busy practitioner under the impression of already “walking the walk and talking the talk” as they put it, it was an extra workload issue having to reconfigure their plans to a different format when the underlying principles were already, as they saw it, being espoused and practiced.

The views of this particular teacher were also reflected in the responses given in the second whole staff questionnaire. Teachers felt that, “Many of the ideas that were introduced [they] already used”, and that few changes to practice were noted because “a lot of TfU was common sense” and already part of standard practice. David Perkins (1994) acknowledges that much of what TfU asks teachers to do is already “good” practice. He writes:

Some of our most interesting work in developing this framework has been with teachers who already do much, or even most, of what the framework advocates...It helps them to sharpen the focus of their efforts. Frankly, we would be suspicious of the framework if the kind of teaching it advocated came as a surprise to most teachers. We hope instead that it will look familiar; ‘Yes, that’s the kind of teaching I like to do – and sometimes, even often *do do*.’ Teachers already strive to teach for understanding. So this performance view of teaching for understanding does not aim at radical, burn-the-bridges innovation. Its banner is not ‘completely new and wholly different’ but a just-as crucial “more and better.”

This certainly has been a central theme in all the responses from the interviewees in this study, and was also reflected in the responses from those teachers who returned the second whole staff questionnaire. There is also evidence that there were changes to practice in terms of what Perkins terms “the more and better”

teaching. One teacher wrote, “I think more about how activities link to what I want pupils to understand” while another suggested that the TfU project, “Improved my awareness of opportunities for active learning.”

With regard to changes to practice, the teachers interviewed gave mixed responses which were also reflected in views gathered from those staff who returned the second “theme based” questionnaire. While one interviewee fully endorsed the framework and saw improvement in pupil performance and attainment as a result of its adoption, other teachers were more cautious in their endorsement of the TfU framework. The difficulty in whether any observed changes to pupil learning was noted by some teachers while the opportunities for reflection were seen as positive by many. A central theme that emerged in relation to changes to practice was that the TfU was “nothing new” and teachers at Wallace Hall felt that their everyday practice matched fairly well with underpinning ideas of the framework.

3.2.3 Autonomy and Creativity

For three of the more experienced teachers interviewed issues surrounding professional autonomy and teacher creativity were voiced. Professional autonomy was the most important issue with regard to TfU for Teacher 1. When asked what factors hindered their adoption of the TfU framework they responded:

I think my own experience as a developer and planner ... I think the fact that I, as a professional, I'm stimulated by the choices that I make. I feel as if I make the biggest impact on something when my passion and enthusiasm is roused and that comes from the different individual choices that I make as a professional.

For this teacher issues of choice and control regarding their own learning and the nature of CPD activities undertaken were a factor in their adoption of the TfU framework. It was not something that they easily identified with and, more importantly, did not choose to undertake:

I didn't choose this package. I don't think it would have been something that I would have chosen. I'm very happy to have exposure to things because a lot of what I've since gone on to develop in my own CPD has been things I've been exposed to, but the fact that I didn't choose it ... but I was very happy to explore somebody else's thinking. I just don't think that the David Perkins' style necessarily suited me.

Spillane (1999, cited by Priestley et al, 2010), in writing about engagement with policies that advocate reform, suggests that "engagement (or lack of it) may be a matter of motivation or will". Priestley et al summarize that, "quite simply, teachers may prefer the security of familiar routines and practices or fail to see the supposed relevance of reforms. In such cases the tendency to tweak reforms to fit such routines and practices is commonplace" (2010). In light of what Ball (2008, cited by Priestley et al, 2010) suggests is an "apparently unstoppable flood of closely related reform ideas", it is perhaps hardly surprising that Teacher 1 felt that their "recreation" of a unit of study using the TfU framework was in some ways "artificial":

I think I artificially created the situation. I did change what I was going to do, what I said I was going to do, but I felt at times I was artificially creating that, and if I'd been left to do it a different way I'd have done it that way because of how I would've done it in the past. It just felt a little bit artificial to me.

This was echoed, to a certain extent, by Teacher 3 who felt that the framework didn't, "inspire me as much as I'd like to be inspired". This teacher goes on to qualify this by saying that:

In terms of delivering the lesson it gave me a format to organise my resources but the delivery I think is going to be dependent on the teacher and personality and things like that.

For Teacher 4 one of the factors that hindered their adoption of the framework was the nature of the extensive planning that in some ways was found to be too constrictive:

I found the process of going through the planning stages and reading the textbook etc rather laborious and the hindrance is that you spend time going through these processes which actually sometimes slows down your thinking rather than sparks it off ... During this unit of work, which is a highly stimulating subject matter, I made various departures from what I'd previously done but I don't believe I did so because of Teaching for Understanding ... I think it was a risk some of the things I did but I think they were productive, but not because of this particular structure being imposed upon it.

Here the TfU framework was perceived to be too rigid and inhibiting. For this teacher it did not encourage spontaneity either in planning or teaching. Issues surrounding creativity and spontaneity were also voiced by Teacher 3:

As a teacher, personally, I find myself wanting to be a bit more creative in my lessons and when I'm given guidelines that I have to fit my lesson into, it doesn't inspire me.

All of these experienced teachers, regarding adoption of the TfU framework in this particular context, expressed concerns about issues of autonomy and creativity. For the less experienced teachers neither of these issues was highlighted. For Teacher 2 there was satisfaction with their existing method of rigorous grid planning, Teacher 5 noted the framework afforded opportunities to, "go back and try and make lessons a bit more exciting ... more dynamic", while teacher 6 welcomed the fact that there was a definite format, "It was good. It allowed more structure." The mixed responses of the interviewees were also reflected in the responses from the second whole staff questionnaire. One staff member wrote, "plenty of room for creativity

was helpful though the actual planning structure was a little constrictive”, while another suggested, “The work I did had a negative impact on the creativity in the unit I feel”. While these two responses from the second whole staff questionnaire reflect the general split in staff opinion (seven comments in total were given) regarding issues surrounding creativity when adopting the TfU framework, it is impossible to attribute these findings to a particular staff group according to career phase or role within the school as the second questionnaire did not seek information about these variables for the reasons outlined in the Methodology section.

However, the evidence from the interviews does suggest, firstly, that teachers’ adoption of the TfU framework may be dependent on level of prior experience, nature of subject taught and a teacher’s individuality in approach particularly with regard to planning and responsiveness to opportunities in the classroom to extend learning outwith the planned focus of the lesson. This raises the issue of the nature of planned Continuing Professional Development (CPD) for whole staff groups. Garret et al (2001, cited by Harris et al, 2006) write that a key factor in ensuring effective CPD is “the effective matching of appropriate professional development provision to particular professional needs”. Hopkins and Harris (2001, cited by Harris et al, 2006) stress the importance of the “‘fit’ between the development needs of the teacher and the selected activity” as being vitally important in ensuring that there is a positive impact on learning and teaching at the school and classroom level. The idea that there is often a mismatch between staff needs and available CPD was noted in a recent national research study in Scotland where the findings indicated that, “more experienced class teachers are more likely to feel a sense of disjuncture between their identified needs and available CPD, and to feel a loss of control over available CPD choices (Hulme et al, 2008). The interview responses, seem to support the findings at national level with regard to choice and autonomy in relation to CPD.

Secondly, the responses from the interviewees seem to reflect Entwistle's reading of the Harvard TfU research project in that there were mixed responses from the teachers involved in that study:

Some teachers rejected the whole idea out of hand, and others found the additional effort it initially imposed too great. Another group recognised the validity of the framework, but felt it offered nothing new - although on reflection that feeling often disappeared, leaving a cautious acceptance. Those who persevered did, however, come to appreciate its value. Where the approach was fully understood and wholeheartedly embraced by the teacher, students' reactions were generally positive. (2001)

In summary, the more experienced teachers who were interviewed suggested that the TfU framework was too constrictive and did not allow for creative freedom in the classroom and issues of professional autonomy in appropriateness of were highlighted. Wiske (1998) writes of the framework that:

As a structure for enquiry, the TfU framework supports teachers as continuing learners. Instead of pointing out their shortcomings or directing them to follow any particular strategy or curriculum design, it endorses their professional authority and autonomy. The role of this framework is not to dictate a mindless enactment of someone else's prescription but to stimulate and help educational colleagues to be mindful in articulating their own prescriptions.

While the creators of the framework suggest that it allows for professional autonomy and creativity in the classroom within a given structure, this was not the predominant experience for the teachers interviewed in this small study at Wallace Hall Academy. Perhaps this can be attributed to factors including motivation and will, initiative overload or simply the fact that the too much effort was required to effect change were practice was already deemed to be satisfactory in terms of pupil behaviour and attainment (as suggested by teacher responses detailed in the Impact on Practice section of this report).

3.2.4 Curriculum for Excellence

With regard to issues surrounding TfU and Curriculum for excellence (CfE) the comments from teachers interviewed brought a number of the themes already discussed together. For Teacher 3 there were definite “parallels in there” between TfU and CfE, and the project helped the teacher to reflect on practice:

Understanding Goals ... to me they were more things I would consider as Learning Outcomes. In terms of Curriculum for Excellence where we're expected to focus on Learning Outcomes as one of the ten dimensions, I saw it as equivalent to that in many respects, and it just made me think about that potentially a wee bit more. But, I wasn't necessarily thinking about them as Understanding Goals. It was just making me focus on my Learning Outcomes more. Again, it made me think about things, run through the process again.

However, this was qualified by Teacher 3 as they found the framework to be restrictive in terms of being creative in planning and teaching:

For me Curriculum for Excellence is something that allows me to think outside the box and this was something that was quite a confined box in many respects. So, I didn't think it was good preparation for myself in terms of that, but equally I might have been taking it the wrong way. I wasn't confident that I was fully getting this and so for me, perhaps, I would tend, at the end of it to sway back towards my own creativity, as opposed to, “Ok, this is the format I'm going to use, let's run through the Teaching for Understanding format.”

For Teacher 5 there is also the suggestion that the TfU project afforded opportunities to reflect on learning and teaching in terms of CfE outcomes with positive gains for pupils, but there was also some confusion as to how they slotted together:

I think it's offered an opportunity for me to go back and look at one topic specifically, one of our first year topics is what I picked, so you know, looking at Curriculum for Excellence, as I said right at the beginning, it was an awful lot of overlap: is this TfU or is this CfE? It's given me an opportunity to go back and look at one of the topics that needed redone, and I think some of the more alternative approaches [building in pupil choice and independent research opportunities] that I've been using to try to gauge understanding applies very well with Curriculum for Excellence.

Teacher 6 suggested that the adoption of the TfU framework could well be a means to make sense of the CfE Learning Outcomes and Experiences during this period of curricular transition:

There are lots of different Outcomes and Experiences that can fit anywhere and everywhere ... I don't know in terms of where the subject will end up or if Teaching for Understanding can actually help us address where certain Learning Outcomes and Experiences will go, but what it should do, it should help us think about it a little bit more and reflect ... I suppose if you were implementing Teaching for Understanding to the course then the booklets would change, and if the booklets change then the lesson plans would change, and the Outcomes and Experiences that are in each lesson will change accordingly as well. So, it could open up a whole can of worms but it could be for the best in the long run I think.

Implied in this response is the amount of work and 'rethinking' that is required when implementing the framework. This is acknowledged by the creators of TfU in the book which presents the findings from the extensive Harvard University research project, *Teaching for Understanding: Linking Research with Practice* (Wiske et al, 1998). They write that the "TfU framework offers guidance but makes many demands on teachers' knowledge and time in designing curriculum and pedagogy". They continue that although there were many transformations in classroom practice for those teachers who "wrestled" with the framework it was "hard work" (ibid).

For the teachers interviewed at Wallace Hall Academy there was a sense that they were already "wrestling" with planning for CfE Outcomes and Experiences and while some teachers saw adoption of the TfU framework as helpful in this process, "there is an excellent opportunity to integrate TfU with CfE course development and I will attempt to follow the TfU methodology" (response from second staff questionnaire), others felt that the project would have been more successfully adopted by staff if TfU principles had been more overtly aligned with CfE development work.

I think the project might have been better received if it had been more connected to Curriculum for Excellence, and I might even argue that if the Head Teacher wanted to draw staff together with a really strong focus on something, possibly, I would have argued, that Curriculum for Excellence should have been that strong focus, particularly at that exact chronological

time that this was happening prior to the real push on Curriculum for Excellence ... I think the project would have seemed more valuable if it had been more overtly connected to Curriculum for Excellence.

In summary, while staff saw the benefit of reflecting on planning the evidence from interviews suggests that the TfU framework would have been seen as more useful if it had explicitly reflected CfE Outcomes and Experiences given the time context of the project.

3.2.5 Terminology

Universally the teachers at Wallace Hall Academy found the TfU terminology to be a barrier to the adoption of the framework. This was reflected in both the responses given by the six teachers interviewed and the responses given by those teachers who returned the whole staff questionnaire. All of the ten responses given from the teacher questionnaire viewed the terminology in a negative light suggesting it was “misleading”, “jargonised”, that it “appeared as if the language was trying to make more of what was really a simple concept which most of us probably do anyway” or that it “would have been helpful if the language reflected CfE documents”. Two of the teachers interviewed gave responses which suggested they were trying to re-interpret the language to fit with that of CfE:

Understanding Goals ... to me they were more things I would consider as Learning Outcomes. (Teacher 3)

I guess the vocabulary that kept coming and going, and, “How are you interpreting that? How am I interpreting that?” Is this what we’re doing?” [The Head Teacher] was good in the fact that you could hand things to him and he’d get back to you, and that was fine. I think it was just a lot of trying to get your head round new terms and things like that ... is this TfU or is this CfE? ... I think there were a lot of new terms that people tried to get their heads round like these ‘Throughlines’ and things like that. I think it was difficult to apply those things, but in some ways it was nice to get the questions and just go through each of the criteria. (Teacher 5)

For Teacher 6, who had completely embraced the TfU the terminology was the hardest aspect of the framework to get to grips with:

I can’t see many negatives with it, to be honest, in implementing. It doesn’t take much work at all I don’t think. If you were implementing it with the American Framework and the terminology, that was probably the hardest thing to grasp. What does it actually mean? In essence I think it’s just thinking more about what you’re trying to achieve and how you’re promoting understanding.

For the Teacher 1 the language was a big barrier to their own understanding of the project:

I thought the project was quite a difficult project. I found the David Perkins language difficult. I found the book overly complicated ... I just didn't find the book very clear, the language very clear. I found it off-putting

Teacher 4 also suggests that TfU terminology was unhelpful:

Using the terminology or the pedagogical language that I would have previously associated with the approaches or activities that we were doing, I found that quite tricky and I wasn't convinced of the value of having to do that. I didn't think it particularly improved what I was doing. It just renamed what I was doing in a lot of cases.

These responses are at odds with the findings of David Perkins (1993) who writes:

Fortunately, most teachers are already far along the way toward teaching for understanding, without any help from cognitive psychologists or educational researchers. Indeed, some of our most interesting work on teaching for understanding has been with teachers who already do much of what the framework that we are developing advocates. They are pleased to find that the framework endorses their work. And they tell us that the framework gives them a more precise language and philosophy. It helps them deepen their commitment and sharpen the focus of their efforts.

As stated in the introduction to this project there is little research evidence with regard to TfU that has been undertaken in the Scottish context. It may well be that the TfU language reflects curriculum or practice language in the USA but not in Scotland. While the principles underpinning the framework were fully endorsed by the teachers interviewed at Wallace Hall the terminology was not seen to be helpful by teachers at this school. Indeed the opposite was found to be true. The general view from staff of the terminology of the TfU framework can be summarised by the words of one respondent to the questionnaire, "the language made the whole project more difficult". On the whole the data from the interviews and the staff questionnaire suggest that whilst there was some value in focusing attention on specific "understandings" for pupils, had the language reflected CfE terminology then perhaps the whole staff project may have been perceived as more valuable.

3.2.6 Timing and Time

As outlined in the previous section of this report issues concerning the timing of the project were an important factor some staff at Wallace Hall Academy. Teacher 4 suggested that perhaps the project would have been more appropriate as a whole staff CPD exercise if it had been geared towards development work that needed to be undertaken for implementing CfE Level 3 Outcomes and Experiences. This was also seen as an issue for two of the six staff members who commented on this theme in the second whole staff questionnaire, "At a time when we were developing new courses and preparing for CfE, I feel TfU was an extra, and this led to my confusion". Another staff member felt that there was, "too much time spent on this" and they would have like to have "the same time dedicated to developing [their] National 4 and 5 courses". Conversely, one respondent to the questionnaire felt that the timing was helpful, "Timing was good as we began to develop new courses. Perhaps a brief reminder at the start of term would be of benefit." For Teacher 1 having insufficient time to really get to grips with the framework was an issue:

What hindered me? I think time. That's always a thing. You know, you embark on your CPD and you allocate in your mind the portion of time you can give to the different interests that you have. I just feel I would have needed significantly more time to undertake what I was trying to do so I think that was kind of one of the bigger ones for me.

For Teacher 5 this was also an issue even though there had been time taken from staff meetings throughout the year to devote to TfU CPD:

I think time is a big problem no matter what you're trying to implement. Time for me to perhaps develop new resources, time to reflect more because I don't know if I reflected as well as I could have on the task.

Interviewer:

I know there was time built in for reflection and planning.

Teacher 4:

I think I probably needed more. I chose a topic that really needed an overhaul, and therefore it wasn't me just rejigging something. I was really wanting to spice it up. Time to do that and sometimes just access resources.

Even though this teacher had seen positive gains in terms of reflective practice and pupil understanding, time to organise resources and completely redevelop their unit of study in line with CfE outcomes and the TfU framework was an issue. For Teacher 3 however, having time ring fenced for planning and development was seen as helpful, “the positives were just having a wee bit of time I suppose”.

For the majority of teachers that were interviewed and for those who responded to the questionnaire, generally, the timing of the project was seen to add to workload in what were seen as already busy schedules. A minority of respondees enjoyed having the extra time for planning afforded by the project. Harris et al (2006) in their research evaluating the impact of CPD found a trend towards ‘in-house’ provision of CPD for a number of reasons including cost effectiveness, acknowledging expertise within school and direct applicability to learning and teaching. However, a number of schools identified barriers to impact with time and cost being the main reasons cited, “Time was mentioned in terms of both the actual time spent on the CPD event, but also in terms of taking the time to implement changes” (ibid). While the teachers in this study felt that time to get to grips with the framework was, in the main, an issue, the research suggests that there is a general problem with time in schools regardless of the nature of the CPD and therefore the issue of time can not be related directly to the TfU CPD in this context. However, the timing of the project, it was suggested by staff interviewed and in some responses to the questionnaire, was an important issue that had direct bearing on the adoption of the TfU framework by staff at Wallace Hall Academy. Had the project been more overtly aligned with planning for CfE Outcomes and Experiences then perhaps the CPD would have been perceived as being more closely matched to staff development needs.

With busy teaching schedules and time as a precious commodity teachers at Wallace Hall did not put adoption of the TfU framework, by and large, at the top of their “priority list” (Teacher 1). Wiske et al (1998b) acknowledge that there must be some incentive for teachers in order for them to give the necessary focus and effort engagement with the framework requires:

Teachers are encouraged by incentives or rewards that directly endorse their efforts to enact TfU. A few pioneers may be drawn to TfU if it happens to appeal to one of their professional passions. Unless they are positively rewarded, however, most teachers are not likely to commit the sustained effort that understanding TfU requires.

4. Conclusions

This study initially set out to answer the following research questions:

- How do teachers in different curriculum areas make sense of the TfU framework?
- How do teachers at different points in the professional life cycle make sense of the framework?
- How is the framework used to reflect on current practice and re-design curriculum units, resources and teaching approaches?
- What helps and hinders teachers' progress?
- What are the outcomes for learners?

However, two key factors led to a necessary redesign of the whole school staff CPD project. Firstly, Local Authority and cluster priorities for in-service days and whole school CPD time had to be given precedence over the planned TfU project (see School Context). Secondly, informal feedback from staff during the initial stages of the project suggested that they were struggling to cope with the demands of the project and the collaborative strand of the TfU project was, therefore, removed and all attention focused on individual teachers' implementation of the framework.

As the interview data from participating teachers was analysed certain themes began to emerge which guided the research enquiry and a new set of research questions naturally evolved. The revised research questions are as follows:

1. To what extent did the teachers engage with the TfU framework?
2. To what extent did the TfU programme of CPD influence teachers' practice?
3. To what extent was the impact of the TfU programme influenced by the context?
4. What impact did the TfU programme have on teachers and learners?
5. How far did the TfU programme achieve the Head Teacher's original aims?

The revised questions form the structure of the final section of this report in which the key findings from the evidence are presented.

1. To what extent did the teachers engage with the TfU framework?

- Universally, the teachers interviewed agreed with the underpinning principles of the TfU framework.
- While teachers agreed with the underpinning principles of TfU, more experienced teachers (those with positions of responsibility within the school management hierarchy or with whole school responsibilities), suggested that their current practice already reflected the “good” practice that the framework outlined.
- The nature of the subject taught was a factor in promoting engagement with the TfU framework for some teachers.
- Less experienced teachers suggested that proximity to ITE and prior learning with regard to TfU facilitated engagement with the framework.

2. To what extent did the TfU programme influence teachers’ practice?

- Teachers were more reflective regarding planning as a result of the project
- For some teachers adoption of the TfU framework encouraged them to be more creative when planning and delivering units of study while other teachers found the framework to be too constrictive
- The more experienced teachers interviewed suggested that the TfU framework did not influence their classroom practice

3. To what extent was the impact of the TfU programme influenced by the context?

- Conflicting demands on teachers’ time was a major factor in teachers’ adoption of the TfU framework.
- The two most important factors suggested by teachers were planning for CfE Outcomes and Experiences and the move to a new school

4. What impact did the TfU programme have on teachers and learners?

- Teachers spent time in cross-curricular groups discussing practice

- For the teachers who fully endorsed the TfU framework there were notable changes in pupil motivation and attainment
- Some more experienced teachers found the programme a de-motivating experience

5. How far did the TfU programme achieve the Head Teacher's original aims? (to improve learning and teaching across the school, to improve consistency of planning across the school and to increase collaborative practice among the staff)

- The programme went some way in achieving the Head Teacher's original aims in that it promoted collaborative cross-curricular discussion regarding learning and teaching as part of the programme of whole school CPD
- The programme did not improve consistency of planning across the school but the evidence suggests that there was a variety of planning methods used by teachers which already took account of the principles of good practice as outlined in the TfU framework
- For the more experienced teachers interviewed any improvements in learning and teaching could not be solely attributed to adoption of the TfU framework
- For the teachers who embraced the framework there were notable improvements to learning and teaching

Recommendations:

- whole school CPD projects need to meet identified and perceived staff needs
- whole school CPD projects need to be based on rationale that staff understand, accept and can reasonably commit to given the particular context of the school

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How Do Teachers Learn to Teach for Understanding?
A collaborative teacher research project at Wallace Hall Academy

Please complete and return by Friday 9th October

Please read the following statements and tick the appropriate box to indicate your level of agreement.

SECTION A: TEACHERS' BELIEFS AND PRACTICES REGARDING:

Assessment	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
1. I consider the most worthwhile assessment to be assessment undertaken by me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. My assessment practices help pupils to learn independently.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. My pupils are encouraged to view mistakes as valuable learning opportunities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Pupils are helped to understand the learning purposes of each lesson or unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. My pupils' learning objectives are determined mainly by the prescribed curriculum.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Assessment provides me with useful evidence of my pupils' understandings which I use to plan subsequent lessons.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comments:

Planning

	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
1. making a unit booklet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. using grid plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. through discussion with colleagues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. thinking about a topic by myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. with pupils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. trial and error	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comment or description of how you currently plan lessons/units of work:

Working collaboratively with colleagues

I regularly work collaboratively with colleagues in the following ways:

	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
1. planning lessons/units of work together	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. observing each other teach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. discussing pupil behaviour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. discussing pupil learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. discussing professional learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. reflecting on practice together	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. cross-curricular planning/teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Other, please specify	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comment:

Professional learning

Strongly Agree Agree Unsure Disagree Strongly Disagree

1. I regularly think about my own learning as a means of improving how I teach.
2. I am still a student of my own subject.
3. I regularly generate new lesson materials and teaching approaches.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional comment:

(Taken from *Learning How to Learn: Tools for Schools* James et al, 2006)

The learning culture in the school

Strongly Agree Agree Unsure Disagree Strongly Disagree

1. Pupils are clear about the purposes of what they are learning.
2. Pupils are helped to become independent learners.
3. Throughout the school, people research, inquire and reflect critically on practice.
4. Teachers are open to change, but critical as to what is most important in terms of learning.
5. Teachers in school learn together, exchanging ideas and practice.
6. There is a strong ethos of mutual support among staff.
7. People talk about and value learning, not just grades, marks and test scores.
8. This school is characterised by people deciding and acting together.
9. There is a strong shared sense of where we are going as a school.
10. All staff have opportunities for continuing professional development.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION C: ABOUT YOU

Please circle the most appropriate description(s) in response to each of the next three questions.

1. Which of the following best describes your current professional role?

- Probationer
- Class or subject teacher
- Class teacher with special curricular or non-curricular responsibilities
- Cross- school responsibilities with a reduced class teaching role
- Learning Leader/Faculty Head/Principal Teacher
- Depute
- Headteacher

2. What is the nature of your current post?

- Full-time permanent
- Part-time permanent
- Full-time temporary
- Part-time temporary
- Supply
- Other, please specify _____

3. How long have you been working as a teacher?

- 0 to 2 years
- 3 to 5 years
- 6 to 10 years
- 11 to 15 years
- 16 to 23 years
- 24 to 30 years
- 31 plus years

Would you be willing to participate in a group or individual interview of 20-30 minutes duration (max)? Please tick either or both boxes. Cover may be available for this.

Group interview

Individual Interview

THANK YOU VERY MUCH FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE.

TEACHING FOR UNDERSTANDING UNIT ORGANISER

You will use this unit organizer to work on the same unit across several sessions. During each session you will draft various elements of your unit. As our sessions unfold, you may go back at any time and “reversion” any section that you completed previously.

Title of Your Unit:

Your Name:

Date:

Cross Cutting Group and Subject You Teach:

THROUGHLINES (TLs) (Large, Overarching Understanding Goals for an entire year or course. These goals stay the same for every unit throughout the year or course.)

1. Question Form:

Statement form:

2. Question Form:

Statement Form:

3. Question Form:

Statement Form:

4. Question Form:

Statement Form:

GENERATIVE TOPIC (GT)

What is your Generative Topic?

CRITERIA for a GENERATIVE TOPIC (GT):

Explain how your Generative Topic meets the criteria below.

1. Centrality:

2. Engagement:

3. Accessibility: What are 2-3 specific examples of resources on the topic that are available to your students and you?

4. Connections: How does the topic relate to other topics in the subject/cross cutting area, to other subjects, and beyond the subject/cross cutting areas to life outside of the classroom?

5. Challenges: Describe what may be potential “troublesome knowledge” – challenges for your students in understanding this topic and how you might design the unit to address likely challenges.

YOUR SUMMARY REFLECTION: Briefly summarise major points from your analysis of your Generative Topic (above 1-5). Using some of the points above, explain why this is a good Generative Topic for your unit.

UNIT LEVEL UNDERSTANDING GOALS (UGs)

UG 1 Question: Statement:	UG 2 Question: Statement:	UG 3 Question: Statement:	UG 4 Question: Statement:
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PERFORMANCES OF UNDERSTANDING (PoU) AND ONGOING ASSESSMENTS

# OF UNDERSTANDING GOALS	PERFORMANCES OF UNDERSTANDING	ONGOING ASSESSMENTS
(What is the number of the unit-level Understanding Goals targeted by each performance? Write the number of each UG or UGs addressed by each performance. E.g. UG number1)	(What will students say, do or make to learn your Understanding Goals and to show that they understand the Understanding Goals?)	How will you know students understand? What evidence/criteria is the assessor looking for in "high quality work in EACH performance?" give a few examples of what an assessor might expect students to do or say or what criteria an assessor might use to assess student work (products, presentations..) in "high level" work for EACH of your Performances?
	<u>Initial Performance</u>	Who? What?

		How? Why?
	<u>Guided Performances</u>	Who? Where? How? What?
	<u>Culminating Performances</u>	Who? Where? How? What?

Appendix 3

Interview Schedule

1. Having planned and taught a unit of work using the Teaching for Understanding Framework, what do you think of the project as a whole?
2. How useful was the Teaching for Understanding framework in planning your unit of work?
3. How far did the Teaching for Understanding programme influence the way you delivered the lessons you planned?
4. What evidence is there that your use of the framework affected pupil learning?
5. Thinking back over this experience, what factors hindered your implementation of the Teaching for Understanding framework?
6. Again, thinking back over this experience what factors helped you implement the Teaching for Understanding framework?
7. How far has the Teaching for Understanding project encouraged you to work collaboratively with other colleagues?
8. How far has the Teaching for Understanding framework encouraged you to think about your own learning and teaching?
9. How far has the Teaching for Understanding project helped you to prepare for planning for Curriculum for Excellence?
10. Is there anything else you would like to say that I haven't covered?

Appendix 4

Teaching for Understanding at Wallace Hall Academy

Following from the initial questionnaire given to all teaching staff at the start of the Teaching for Understanding project, and subsequent individual staff interviews, certain themes have emerged surrounding the project. I would be most grateful if you could spare a moment to add any thoughts/comments about your experience of the TfU project under the headings given below:

Changes to practice

What changes to practice has this project made to your teaching if any?

Collaborative practice

Reflective practice

Central ideas which underpin the Teaching for Understanding framework

Teaching for Understanding terminology/language used

Creativity and teacher autonomy

Time and Timing

Teaching for Understanding and Curriculum for Excellence

