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The Impact of Academic Accreditation and Recognition on Teachers'
Engagement with Professional Learning: A Literature Review
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A Literature Review

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Executive summary

Research aims

The research was conducted in response to a brief provided by Welsh Government in June 2018 to investigate accreditation and recognition frameworks for teachers' professional learning in a variety of national contexts. This paper reviews the literature and available evidence on the impact of academic accreditation on engagement with professional learning; considers the most effective models of accreditation of professional learning; examines system-wide alternatives to qualifications-based recognition; and explores the impact of academic accreditation on engagement with professional learning.

Method

The brief from Welsh Government specified that the research should take the form of a literature review and, in consultation, three principal research questions were identified:

1.   What methods, if any, of recognition are used by Professional Learning models?

2.   Is there any clear rationale for the application of any of those methods of recognition or accreditation?

3.   What does the literature suggest regarding the impact of the types of recognition or accreditation on a) engagement with Professional Learning and; b) on the effectiveness of Professional Learning.

In accordance with the research brief, the geographical scope of the brief focused on OECD countries, especially those with some similarities to Wales, for example, in relation to the process of curriculum reform. Recognising that professional learning is framed in a variety of ways in different contexts, the key words in the search included: **teachers**; **schools; professional learning; professional development; continuing professional development; in-service training; recognition; reward; accreditation; certification; licensing.** Evidence was drawn from official government policy documentation; documentation by state-sponsored arms-length body or meso-level organisations with a defined remit in respect of teachers' professional learning; peer-reviewed academic journals; recognised research institutes or professional bodies; and other publications generated by recognised academic authorities or policymakers.

Overview

In response to Research Question 1, the review generated a range of evidence of models of professional learning in different contexts. The evidence is presented region-by-region: Europe; East Asia; USA and Canada; Australia and New Zealand. Within each region, those jurisdictions whose practices have been researched are presented individually. While there is some commonality of approaches within the wider region, there is also some variation in practice.

Evidence in response to Research Questions 2 and 3 is much more sparse. While explicit rationales for models of professional learning are rare, two clear themes emerged: the control of quality of

provision; and the creation of a professional learning culture. Similarly, there is little clear evidence of effectiveness as this would be very challenging to measure convincingly; there is, however, evidence of the levels at which teachers engage with professional learning.

Key findings

Europe

Evidence is available for a number of European countries and jurisdictions but with little evidence of a common approach. Over a number of years, there has been quite a fragmented approach to professional learning and recognition in England. Various leadership qualifications are available from accredited providers but the recognition of Advanced Skills Teachers, designed to keep the best teachers in the classroom, was withdrawn, as was funding for a Masters for NQTs. A similar pattern is evident in Wales with the withdrawal of the Master's in Educational Practice, which focussed on early career teachers. In Scotland and Northern Ireland, recent reforms have focussed on the development of a framework-based model of recognition using teacher standards as indicators of progression throughout a teacher's career. A similar career-long model can be found in Hungary, where teachers progress through career levels following assessment by portfolio. A less structured approach is taken in Finland where teachers are required to participate in training each year and where training is often government funded. Additional qualifications are required for school principals.

East Asia

There is some evidence for a pattern of clear career progression linked to further training and professional learning in those East Asian jurisdictions which have been the focus of research. Career progression is often linked to formal appraisal, for example in Shanghai, Singapore and South Korea. Shanghai and Singapore also offer teachers the opportunity to undertake different types of development or career tracks. The system in Hong Kong, however, has more in common with the framework model developing in Northern Ireland. The cultural and social context within the East Asian countries may mean that the models found there are less applicable in a different cultural and social context, such as Wales.

USA and Canada

Professional learning in the USA is recognised at state level and, while there is no single model, in those states where periodic re-licencing is required, teachers must provide evidence of professional learning. Canada demonstrates a range of approaches across different provinces: Ontario has a framework for professional learning which encourages autonomy; Alberta benefited from a state-funded system of school improvement dependent upon teacher collaboration; British Columbia links teachers' pay to post-graduate qualification.

Australia and New Zealand

A number of approaches to recognition have been used in Australia, the most recent being a system of accreditation standards for teachers, one of which is focused specifically on professional learning. The process is based on a set of standards and expectations which are linked to career stages, with clear, differentiated expectations set out at each stage. In New Zealand, it is professional learning providers who are accredited rather than teachers. Teachers' professional learning is recognized

through the Advanced Classroom Expertise Teacher Recognition programme assessed through portfolio against national standards.

Conclusion and recommendations

While there is a wealth of evidence on the models of professional learning operating in OECD countries, evidence of its effectiveness is more limited. It possible, nevertheless, to identify the key dimensions within which professional learning is framed: from formal to informal, optional or compulsory, academic or non-academic, and recognition through framework or professional culture. Based on these dimensions and with regard to the current conditions in Wales, we have identified a number of recommendations.

- That recognition or accreditation is a desirable element for Professional Learning in:

  a) strengthening the professionalism of teaching,
  b) improving the professional status of teachers in the eyes of the general public (Wingrave and McMahon, 2016)
  c) that it can provide a measure and method of standardisation of development opportunities.

- That a framework of professional learning is developed in Wales which provides options for academically accredited and non-academically accredited provisions (Donaldson, 2010).
- That accreditation and recognition should not be main driver for Professional Learning but should be a natural outcome of a professional ethos of continuous improvement (Fullan and Hargreaves, 2015).
- That such a framework is planned in synergy with other requirements, such as QTS, NQT and Leadership requirements.
- That the framework should aim to develop a culture of professional learning which builds from the needs of the individual teacher, school and area and is driven from the ground up. Accreditation and recognition must be accommodated within a Professional Learning framework that is flexible, locally driven, embedded in classroom practice (Opfer 2016, McKinsey 2007) to allow for personal and institutional motivation and focused on student learning and on local school goals (Kools and Stoll, 2016).
- That care is taken that any external impositions may not undermine teachers' professionalism and agency (Kennedy, 2005: 241) or that national priorities do not completely take over individuals' professional learning time (Black *et al*, 2016; GTC Scotland; 2018)
- That care is taken to avoid the development of a 'two-tier profession' (Thomas, 2016: 229) which may not encourage or develop the collaborative culture of professional learning which is desired and could polarise the academic from the professional which would strain the coherence of any system or framework which may be put in place.
- That the recording of Professional Learning in a form such as the Professional Learning Passport is the baseline for the recognition and acknowledgement of Professional Learning in the profession.

- That a progression ladder is developed which recognises development within teaching and learning and acknowledges the achievements, developments and learning of all teachers. It should be optional but give all teachers a route of acknowledgement which runs parallel to, and, for some, in addition to, the usual career progression into management and formal leadership.

1.0   Introduction

This literature review of accreditation and recognition frameworks for teachers' professional learning was conducted in response to a brief provided by Welsh Government in June 2018. The initial lines of enquiry, outlined in the brief, were that this paper should look to review the literature and available evidence on the impact of academic accreditation on engagement with professional learning; should consider the most effective models of accreditation of professional learning; examine system-wide alternatives to qualifications-based recognition; and, explore the impact of academic accreditation on engagement.

1.1   Methodology

In consultation with Welsh Government, three principal research questions were agreed in order to guide the study:

1. What methods, if any, of recognition are used by Professional Learning models?
2. Is there any clear rationale for the application of any of those methods of recognition or accreditation?
3. What does the literature suggest regarding the impact of the types of recognition or accreditation on a) engagement with Professional Learning and; b) on the effectiveness of Professional Learning.

1.2   Searching Strategy

In line with the requirements of the brief, the research team worked to agree the parameters of our searching strategy (Cresswell, 1994), in order to establish clear criteria for admissibility and inclusion of evidence in the review (Boote and Beile, 2005). Key considerations were ensuring the quality of evidence and literature reviewed (Knopf, 2006); the validity and reliability of the supporting evidence cited, and the relatability of findings to the Welsh context. One of the stipulations of the brief was that the geographical scope of the research should be limited to OECD countries, with a greater weight of emphasis being given to evidence from English speaking countries, and countries with systems sharing significant similarities with Wales, such as their position in relation to the global curriculum reform agenda.

In line with the research questions and requirements of the brief, the study team agreed the key words that would guide the searching strategy. These were: **teachers**; **schools; professional learning; professional development; continuing professional development; in-service training; recognition; reward; accreditation; certification; licensing.** In structured searches, we combined these search terms variously with the names of OECD countries, and, where appropriate, with sub-national state level administrative units (e.g. states, territories, regions, nations within nation-states or within national federations) where these governmental units had substantial responsibility for educational policy.

1.3   Inclusion criteria

The evidence cited in this review was drawn from official government policy documentation; documentation by state-sponsored arms-length body or meso-level organisations with a defined remit

in respect of teachers' professional learning; peer-reviewed academic journals; recognised research institutes or professional bodies; and other publications generated by recognised academic authorities or policymakers. In mapping out accreditation and recognition practices within OECD countries to address Research Question 1, material reviewed pertained solely to the professional learning of teachers, principally in state-sponsored education systems, and did not encompass the experiences of other education-related occupational groups (e.g. learning support workers or school administrators). To answer Research Questions 2 and 3, some material was reviewed on the experiences and engagement of other professional groups (e.g. medicine, law, HE) where instructive parallels and comparisons between professions could be drawn.

2. Research Question 1: What method, if any, of recognition are used by Professional Learning models?

2.1 Europe

2.1.1 England

Teachers in England require Qualified Teacher Status (QTS) to practice, unless they work in free schools or academies. QTS can be gained through a first degree with QTS or a PGCE/PGDE with Cs in GCSE English and Mathematics (and Science for Primary) and in a variety of ways. Newly Qualified Teachers receive a 10% reduction in teaching load so they can complete induction requirements.

In 2016 the Department for Education (DfE) produced "Standard for teachers' professional development", accompanied by a guidance document which articulates the characteristics of effective professional development (PD) in some detail (DfE, 2016b).   PD after the NQT year is the responsibility of schools or individuals and there does not seem to be any compulsion for teachers to engage: LEAs seldom now provide PD, but there is a number of organisations which work with schools and individuals in this area. A 2017 study showed that early career teachers were not receiving the professional development opportunities they required (Spencer *et al*. 2017). The Teaching and Leadership Innovation Fund opened in January 2018 offering PD from eight providers in selected regions (DfE, 2017).

Following a DfE consultation called *Strengthening Qualified Teacher Status and improving career progression for teachers* which closed in March 2018 (DfE, 2017), the Secretary of State for Education announced a new two-year induction period and a fund to allow teachers with seven or more years' experience to apply for a sabbatical year. A new QTS is to be announced in September 2019 (DfE, 2017). The consultation also asked about the most effective way to cater for career progression (not necessarily promotion) among teachers. The focus seems to be on qualifications, perhaps to give coherence to a system in which a variety of types of providers have already developed their own career structures and CPD.

Another concern (DfE, 2017) was the gap between NQT and National Professional Qualifications (NPQs). NPQs are available from accredited providers for Middle Leadership (NPQML), Senior Leadership (NPQSL), Headship (NPQH) and Executive Leadership (NPQHEL). The NPQH is no longer compulsory for headteachers. Some providers do offer holders of NPQH, and other certifications, the opportunity to articulate into various stages of Masters-level programmes via embedded entry points: for example, Nottingham University (2018) offers NPQ holders up to 60 credits worth of exemption at M-level programmes in Educational Leadership.

An Advanced Skills Teacher (AST) qualification was withdrawn in 2013 in a move to free schools to set pay scales and funding for a Masters for NQTs has also been withdrawn. Other initiatives approved by the DfE include the setting up of the independent Chartered College of Teaching (CCT), with its own set of principles and membership fees. In 2018 it will begin a pilot of a Chartered Teacher Programme (CTeach or Chartered Teacher Status). However, this does not yet seem to have links with academically accredited qualifications (CCT, 2018).

2.1.2 Finland

In Finland, all teachers of general education must hold a Master's degree. Teacher training can consist of an integrated Master's programme where the subject and pedagogical training is completed at the same time or the pedagogical component can take place after the first degree has been obtained (Finish National Agency for Education, [n.d.]). Teachers are highly trained and teaching is seen as an attractive profession. Institutions offering teacher training are highly selective (*Ibid*.).

Teachers are required to take part in training every year. "At most levels of education the teachers are required to participate in continuing training every year as part of their agreement on salaries" (Finish National Agency for Education, 2017: 26). The state funds training, particularly in areas relating to policy and reforms. Providers can apply for funding to improve competence of teachers (*Ibid*.).

Principals in Finnish schools are expected to have a certificate in educational administration (Finnish National Agency for Education, [n.d.]). No other formal method of recognition has been found other than the point above about training being an agreed part of salaries. Professional learning in Finland is summarised by the following quotation, "Finnish teachers consider continuing training as a privilege and therefore participate actively." (Finnish National Agency for Education, 2017: 26).

2.1.3 Hungary

Elementary school teachers must have a bachelor's degree focussing on subject and pedagogical knowledge from a teacher education college. The degree comprises a significant practical element. For secondary, teachers must have a master's degree, which focuses on pedagogy and practical elements (TIMSS, 2015).

"Teachers are required to participate in at least 120 hours of professional development every 7 years" (TIMSS, 2015). In 2013, a "life career model" was established with teachers being classed as "intern", "teacher 1", "teacher 2", "master teacher" and "teacher researcher" (TIMSS, 2015). To progress through these stages, teachers are assessed through portfolios, observations of teaching. Programmes of professional learning are offered which feed into the evidence for the portfolio.

One of these programmes involves the educational institution developing a 5 year course through consultation with teaching staff. This consultation is to aid the development of a programme that meets the needs of teachers (Eurydice, no date).

2.1.4 Northern Ireland

Teachers' professional learning in Northern Ireland has recently been reviewed and consequently in March 2016 the Education Minister launched the "Teacher Professional Learning Strategy" (Department of Education, no date). The aim of this strategy is to provide a "framework for teacher professional learning; develop the leadership capacity of teachers; and provide practice-led support within communities of effective practice" (Department of Education, Northern Ireland, 2016: 4). To achieve this, the strategy states that teachers will be given more control over their own professional learning and supported in becoming reflective practitioners, and thereby improving educational outcomes for pupils (Department of Education, Northern Ireland, 2016).

The strategy states that teachers' professional learning will be career-long and based upon collaboration, with support offered through a mentoring system (Department of Education, Northern Ireland, 2016). McKinsey (2007) states that the most effective models of professional learning involve coaches in schools, developing leaders and teacher collaboration. Leaders will be encouraged to develop professionally by having opportunities to undertake additional study and placements (Department of Education, Northern Ireland, 2016).

A virtual centre of excellence will be established, with examples and resources placed on this (Department of Education, Northern Ireland, 2016). This Centre will "give teachers access to research, guidance and support materials, examples of different methodologies and best practice case studies with links to resources in other countries" (Department of Education, Northern Ireland, 2016: 20).

The Strategy states that professional learning will provide options for accredited and non-accredited programmes. This accreditation will be provided by HEIs. This will "allow teachers to make choices about developing their specialist skills and knowledge linked to the revised teacher competences" (Department of Education, Northern Ireland, 2016).

2.1.5   Scotland

Teachers qualifying in Scotland need a BEd or a PGDE. There are National Standards for primary and secondary teachers: "Standard for Provisional Registration" (SPR), "Standard for Full Registration" (SFR), "Career-long Professional Learning" and "Leadership and Management" which includes "Standard for Middle Leadership" and the "Standard for Headship". Embedded in these, as with the Curriculum for Excellence, are "Learning for sustainability" and "Leadership for Learning" (GTCS, 2015).

Teachers do not have to demonstrate engagement with every aspect of the Standard they are using: the system is predicated on individual needs and self-evaluation: for example leadership may be developed within classrooms, departments or schools (so is not limited to those with formal leadership roles) and use of the Standard for SFR is not limited to probationer teachers (GTCS 2015). There is a compulsory annual Professional Update (PU) meeting, called the Professional Review and Development (PRD) meeting. A five-yearly re-accreditation is called the "PU sign-off". Note the use of terminology – on the PU page, the "sign-off" is described as necessary to maintain registration with the GTCS, not as re-accreditation or relicensing (Watson and Fox, 2015; GTCS 2018).

Teachers use the Standards throughout the PRD process, to record, discuss with mentors and plan. They see this as a positive process and find the Standards useful in organising and reflecting on their PRD; "Career-long Professional Learning" is the most-used Standard (Black, 2016). Engagement with PU is not linked to fitness to teach proceedings – teachers undergoing these still engage in PU unless there are extenuating circumstances (GTCS, no date).

Teachers keep an online "reflective record of professional learning and evidence of impact", using MyGTCS, during the year. This include courses, collaboration, action research, analysis, reading, etc (Black, 2016). Some of this may be externally accredited, but this is not an expectation (GTCS, 2015).

Evidence of this engagement forms part of the "sign-off" process which must be completed by the teacher and their line manager.

Into Headship is a new qualification supplanting former qualifications, which are still accepted (Scottish College for Educational Leadership, 2018). It is not mentioned by the GTCS in the context of the Standard for Leadership and Management but can be found on the GTCS website by searching. It is accredited by the Scottish College for Educational Leadership in co-operation with universities (Edinburgh University, 2018; SCET, 2018). There is a three-step pathway to an M-level qualification (developed with universities) with the following sequence: Middle Leadership, Into Headship (PG Certificate), In Headship.

2.1.6 Wales

As a consequence of the devolution settlement in Wales in 1999, the responsibility for educational policy lies with the Welsh Government. In 2017, Welsh Government published its National Mission which stated that by 2021 schools will be working together and "the culture and principles of the self-improving school system will be further embedded" (Welsh Government, 2017: 10). The National Mission also emphasises that a culture of partnership, collaboration and sharing will be embedded within the teaching profession (Welsh Government, 2017). An action plan to support this national mission is in place. Furthermore, in August 2018, the professional standards for teachers were updated to support the development of teachers during the transformation of the education system. The "new standards have been developed with the profession, for the profession" (Welsh Government, 2018). Additionally, the standards refer to career-long professional learning. Embedding professional learning within this change in culture is becoming an increasing priority for Welsh Government.

Teachers in Wales require Qualified Teacher Status (QTS), gained through a first degree with QTS or a PGCE/PGDE with Bs in GCSE English and Mathematics (and C in Science for Primary) and in a variety of ways. Newly Qualified Teachers receive a 10% reduction in teaching load to complete induction requirements. For Headteachers in Wales, the National Professional Qualification for Headship (NPQH) is mandatory.

Among stakeholders in the education system, those with direct influence on professional learning and accreditation include Welsh Government, four regional consortia, local authorities, the National Academy for Educational Leadership, the Education Workforce Council, ITE providers, and Qualifications Wales for vocational qualifications. ITE providers award recognised academic qualifications. The Education Workforce Council does not refer to itself as an accrediting body; it maintains a "register of education practitioners" (EWC, 2018), has responsibility for competency procedures and runs the Professional Learning Passport (an online record of professional learning), which is compulsory for NQTs but not others.

Regional consortia are responsible for school improvement and leadership development, including "secondments in other schools, … commissioning, and co-ordinating the provision of training and development programmes" (Welsh Government, 2015). From 2018 they run the NPQH regionally. Local authorities organise in-service training (INSET) for their own teachers (for example see

Ceredigion, 2017) within the regional consortia. Consortia also provide INSET for teachers and teaching assistants (for examples follow links from GwE, 2018). In 2017, the National Assembly for Wales, having reviewed teachers' professional learning, suggested that a system of accreditation of provision should be considered to ensure quality of professional development (National Assembly of Wales, 2017).

The new National Academy for Educational Leadership (NAEL) was established in 2018, but "will not be directly responsible for delivering leadership development provision. … will draw on the effective provision already in place and seek to endorse it [and] will commission new provision where … needs are not yet being fully met." (NAEL, 2018). It has accredited a Newly Appointed and Acting Headteacher Programme to commence in September 2018, and an optional HE-accredited Level 7 pathway is planned.

"Schools as Learning Organisations" (for details see Welsh Government, 2018) sets out the aspirations for the future. It envisages a system where each teacher has career-long support with their professional development, the aim being to improve learning and teaching. Support may come from external agencies and "Time and other resources provided to support professional learning".

2.2 East Asia

2.2.1 Shanghai – China

Teacher qualifications in Shanghai vary according to the age and phase taught. Primary teachers must obtain a sub-degree diploma, whereas secondary teachers must obtain a bachelor's degree and a professional certificate (NCEE, 2018). In recent times a higher proportion of primary teachers have bachelor degrees whilst more secondary teachers have masters qualifications (Zhang, Ding, Xu, 2016).

Teachers must be certified and then can progress on the teacher career ladders, of which there are thirteen steps by now. One of the higher grades available is the Professor Senior Teacher which gives teachers parity of status with University professors (NCEE). Teachers progress by succeeding in performance appraisals, further training and development, engagement in research and in roles as mentors and trainers (Zhang, Ding, Xu, 2016). Their roles as mentors and trainers are formally recognised roles – senior ranked teachers who have received specialised training for the role. Indeed, these master teachers, called Famous Teachers or Principals are identified to teach and train other master trainers in model schools called Base Schools (Jensen, Sonnemann, Roberts-Hull, Hunter (2016). There is a strong level of accountability for this kind of training, where promotions are not approved unless there is clear development in the staff being mentored (Jensen, Sonnemann, Roberts-Hull and Hunter, 2016). Master teachers are allocated to the districts every three years but only half of those applying for these roles will be successful (only 0.5% of all teachers are Master Teachers) (Jensen, Sonnemann, Roberts-Hull, Hunter (2016).

All staff are required to undertake professional development and the focus is decided by the teachers in consultation with their principals. They must undertake a minimum of 360 hours every five years, in addition to renewing their teaching certificate (NCEE). The type of development undertaken generally sits under three types – teaching and research, lesson preparation or grade groups (Zhang,

Ding, Xu, 2016). Training and development can also be taken outside of the school, again in consultation with the principal.

Professional development in Shanghai is a significant contributor towards teachers' professional appraisal and thus has a high level of engagement (Zhang, Ding, Xu, 2016). In addition, the hierarchy of professional titles is culturally attractive since it provides recognition and status for the teacher (Zhang & Ng, 2011). In addition, the time allocated to professional learning is significant, and is above that of other countries, with teachers' teaching time is on average 10-12 hours per week (Jensen, Sonnemann, Roberts-Hull, Hunter (2016).

An additional factor considered here is that there is a cultural impact to the collective ideology, which influences teachers to consider collaborative working to serve the all, rather than to work for personal gain alone (Zhang & Ng, 2011).

2.2.2   Singapore

Teachers qualifying in Singapore need a diploma in Education (Dip Ed), an Education degree (BA/BSc) or a PGDE. These are centrally awarded by one sole awarding institution (the National Institute of Education, Singapore) which works in close collaboration with the Government's Ministry of Education (Ministry of Education, Singapore (A), 2018; Sclafani & Lim, 2008).

Teachers are provided with a stipend of support whilst training and tuition fees are covered. These must be repaid, with interest if the trainees do not complete their training course successfully and they must also commit to teaching for three years (Sclafani & Lim, 2008; National Center on Education and the Economy, 2018). Great care is taken to ensure that the appropriate persons are appointed to these training opportunities, and not all who apply are accepted – they must meet the exacting requirements of the Ministry of Education (Sclafani & Lim, 2008).

Once they are trained, teachers have a choice of three career directions to take, those being the teaching track, the leadership track and the specialist track. These are considered fields of excellence by the Ministry (Ministry of Education, Singapore (A), 2018) and they range from a general track to a super senior stage. (National Center on Education and the Economy, 2018). They are eligible to receive 100 hours of professional development each year (Sclafani & Lim, 2008). All these development opportunities are provided by the centralised National Institute of Education or the Academy of Singapore Teachers, and thus the development opportunities for teachers in Singapore are closely structured and controlled by the Ministry of Education.

The opportunities for development are contingent on approval through the national performance management system (Educational Performance Management System – EPMS). Their professional development is therefore closely linked to their performance and the eligibility of the teachers to progress in their career and to engage with formal professional learning is controlled by the management system, which evaluates their abilities in the areas of Professional Practice, Leadership Management and Personal Effectiveness. (National Centre on Education and the Economy, 2018). This system therefore requires close oversight and regulation of the professional learning of

teachers by a government ministry or agency and requires a very structured and systematised structure.

There are opportunities for teachers to gain formal academic accreditation through the study of MA or PhD qualifications, and the Ministry of Education and National Institute of Education offer scholarships and awards for teachers to undertake this type of further study at home or abroad, in a full or part-time capacity. This again is clearly linked to the structured professional learning requirements and needs to contribute to the career tracks selected. Their roles, on completion of the further qualification, will be determined by the central Human Resources services (MOE [b], 2018)

The methodology for professional learning in Singapore, although it appears to be effective, does require significant regulation and centralised structure, which may not be transferable into the Welsh educational context.

2.2.3   South Korea

Teachers in South Korea are generally trained on undergraduate teaching preparation programmes which are accredited by the government, where there is great demand for primary teaching places but less so for the secondary sector (National Centre on Education and the Economy (2018).

Following initial training, further professional development is closely linked to a national performance appraisal programme, where teachers are assessed and gain points according to a variety of criteria surrounding competence, contribution, experience and training and this also is the significant factor in their promotion opportunities (National Centre on Education and the Economy (2018). Thus the incentive and motivation for professional development is influenced by the desire for promotion, and the engagement in such activities, although commonplace, may not stimulate the personal motivation to see pupils learn and develop (Park & So, 2014).

Teachers are appraised formally for their professional development (Teacher Appraisal for Professional Development) where the system identifies the individual's stage and mind-set for professional development and provides materials for self-development. It is intended to be a reassuring and objective method of developing staff and raising school standards (OECD, 2010). However, it must be remembered that the social organisation of education in South Korea ensures that teachers are expected to comply with directives and system requirements with little questioning of the values and methods suggested, which may impact the independence and objectivity of the professional learning process (Park and So, 2014).

Professional development courses can be for specific qualifications or can be in-service or training opportunities, and they may be offered by public or private bodies although private courses require government approval (National Centre on Education and the Economy (2018). Within this structure there is opportunity for excellent teachers to be provided with a 'study and research year' (OECD, 2010) to further develop their professional capabilities, whilst struggling teachers may be required to take on professional training (National Centre on Education and the Economy, 2018).

Those teachers seeking to become a 'Master Teacher' (National Centre on Education and the Economy (2018), in addition to being the highest category of teachers and having fifteen years of teaching

experience, must also complete training for a qualification. Once achieved they receive research grants to supplement their salaries (National Centre on Education and the Economy (2018).

Park & So (2014) suggest that the generic and centralised professional development opportunities are not generally to the satisfaction of Korean teachers since they do not address the individual needs of teachers and classrooms. However, there seems to be a more recent emphasis on teacher-led professional development which may address some of these concerns (National Centre on Education and the Economy (2018).

2.2.4   Hong Kong

 Although Hong Kong was returned to Chinese sovereignty in 1997, it remains quite distinct from other regions of China, maintaining an independence and distinctiveness of culture and actions (OECD). It is 'a hybrid of Chinese culture and British traditions and schools enjoy the best of both worlds.' (OECD, p99).

Hong Kong trained teachers, since 2004, must be holders of bachelor degrees. They must be registered with the Education Bureau (EDB) as registered or permitted teachers, depending on their teaching qualification, permitted teachers being those who have not undertaken training. (CPRE). Trained teachers' salary is approximately 1.5 times higher than other professionals of similar qualifications (NCEE).

 The EDB trains experienced teachers to provide mentoring for newly qualified teachers in their first year of work. Teachers are then required to undertake 150 hours of professional development over three years and this is linked to a formal framework for professional development which is the 'Teacher Competencies Framework'. This framework is locally adapted to track teachers' competencies and ensure their development. However, this time requirement is regarded loosely, with greater emphasis on quality of training and development (Jensen, Sonnemann, Roberts-Hull and Hunter, 2016).

Formal professional development courses are generally provided and approved by the EDB or the universities. Experienced teachers are trained as mentors for new teachers by the EDB. They have established a task-force to consider how a centralised professional progression structure can be established in order to recognize the achievements and experiences of high quality teachers (National Centre on Education and the Economy (2018).

 Hong Kong has established curriculum leaders within schools, who are at an equivalent level to deputy-headteachers, who have a responsibility for promoting cultures of professional development and assisting with planning and implementation (Jensen, Sonnemann, Roberts-Hull, Hunter, 2016). They have a 50% teaching load in order to engage effectively with their role.

2.3   USA and Canada

2.3.1   USA

Levels of professional learning in the USA are formally recognised through the licensing system in each state in that teachers are required to engage with professional learning in order to meet the requirements for relicensing. Precise requirements vary from state to state: Massachusetts, for example, requires teachers to complete a specified number of Professional Development Points and provides guidance as to the PDP value of a range of activities which can include approved training programmes, school-based activities such as curriculum development, and other varied activities (Massachusetts Department of Elementary and Secondary Education). Similar systems operate in other states, for example, Vermont publishes a detailed list of activities which can be credited to re-licencing (State of Vermont Agency of Education, 2018). Licensure allows the regulatory authority to specify which subject or subjects teachers are qualified in and, in addition, is a means of ensuring teachers engage with professional learning in response a specific need. In California, for example, a qualification in teaching English learners is now required. Betts, Zau and Rice (2003) records that teachers who did not have such a qualification were encouraged to gain it in order to meet the needs of learners with English as an additional language. Across the US more broadly, the formal system of recognition does not take account of informal learning, such as the collaborative creation of resources or sharing observation. Informal and interactive learning is an important resource for teachers in responding the complex demands of the role but the lack of meaningful rewards may inhibit participation (Lohman 2006).

In 2016 Learning Forward conducted a national survey in the USA to measure the extent to which teachers' experience of professional learning aligns with the Standards for Professional Learning developed by that organization in 2011, and adopted in the majority of US states (Learning Forward, 2016). The standards relate to learning communities, leadership, resources, data, learning design, implementation and outcomes, and all seven are focused on improving student learning. The survey found that there was a general commitment to professional learning at all levels of the profession, but that teachers' perceptions of its design and effectiveness were less positive. Teachers noted that while achievement data was used in the planning of professional learning, there was less consistent use of data in its evaluation. Another feature was that teachers felt that their own levels of experience and expertise were not taken into account in the planning and design of learning experiences. Decisions about professional learning were not made by the teachers themselves. The final key point was the teachers felt that they were given insufficient time to implement their learning in the classroom. The report recommended more opportunities for embedded professional learning informed by data and greater autonomy for teachers in decisions about their professional learning. A more detailed study of specific schools and comparison of international practice noted that the culture and traditions of individual schools are powerful determinants of teachers' engagement with professional learning (Jurasaite-Harbison and Rex, 2010).

A recent development in the USA is the advent of micro-credentials (Crow, 2017). Teachers are able to receive recognition for aspects of classroom practice through online micro-credentials. Designed by a university or professional organization, they are available only online through various platforms such as Digital Promise or Educators Rising. Crow (2017) notes their potential for validating practice

and enabling the formal recognition of learning beyond individual schools to districts and states. University partners may also offer graduate credit linked to the micro-credentials.

2.3.2   Canada

An overview of professional learning in Canada was provided by Campbell, Osmond-Johnson, Faubert, Zeichner, and Hobbs-Johnson (2016) in response to international interest. Canada is recognised nationally as a high-performing system; its approach to professional learning, however, is diverse across provinces and territories. Consistent features include the prevalence of collaboration and the embedded nature of much of the professional learning. Provincial and district administrations create enabling conditions by, for example, ensuring that school calendars give teachers opportunities to collaborate with colleagues in other schools or by funding action research projects. Overall, the condition of professional learning in Canada was found to be 'vibrant' (p. 74). In response to Campbell's review, Fullan and Hargreaves (2016) make the case for 'collaborative professionalism' as the basis for professional learning and development. There is a recognition that approaches differ across Canada and that, even in a high performing system, not all teachers benefit equally. Nevertheless, there is a confident assertion that the strength of the system the well-established culture of collaboration and the expectation that all teachers at all levels participate in professional learning. While there is some acknowledgement of the value of professional standards in recognition of learning in the early stages of a teacher's career, after the first four or five years, the impact of learning on practice is less marked and, therefore, more difficult to recognise formally. The impetus for professional learning and development throughout a teacher's career is the collective recognition PLD is integral to the role not an optional extra.

On a more local level, Butler, Schnellert, and MacNeil, (2015) demonstrates the complexity of the relationships between engagement in professional learning and teacher agency in a case study of a Canadian school district. Based on the assumption that collaborative enquiry is an effective means of improving outcomes for students, the study evaluates the extent of the effect at systems level. A collaborative inquiry project was initiated by the Ministry for Education but district goals were informed by teachers' concerns rather than imposed from above. The study demonstrated the link between efficacy and 'improved student outcomes achieved by enacting practices developed in collaboration with colleagues' (p. 15). The case study also focused on the roles of school and district level leaders in supporting and advancing teacher agency. Indeed, the key enabling condition for the change initiative was identified as the context in which all levels of leadership were committed to listening to teachers and distributing leadership and agency.

Alberta

Professional learning in specific Canadian provinces has also received attention and Hargreaves and Fullan (2016) noted that its success is based not a formal structure of *post hoc* recognition but on the professional culture of the system. In Alberta, there is a well-established collaborative culture across the education sector at state, district and school level including school leaders, teachers, other staff and the teachers' professional association (Osmond-Johnson, Zeichner, and Campbell, 2017). Professional standards in Alberta include engagement with professional development as core competencies for teachers and school leaders, but without specifying minimum hours of

participation. Levels of entitlement, however, are agreed between the state and the teachers' professional association. Between 2000 and 2014, the state supported a programme of action research, the Alberta Initiative for School Improvement (AISI), which encouraged schools and communities to develop projects focused on improving student learning. During its lifetime, the programme saw a high level of engagement with 95% of schools participating. Although the programme has now ceased, it is noted that the habits and culture that were developed in teachers and schools continue to influence professional learning behaviour. The AISI programme was based on collaborative learning, within schools and districts, but also included international links and this approach continues to influence practice. Projects are planned with reference to the improvement plans for schools and districts and all teachers are required to submit a personal development plan each year. The professional learning culture in Alberta faces challenges in that teachers have a heavy workload (second in the TALIS survey) and this is acknowledged to have an impact on teachers' capacity to undertake professional learning activities.

Ontario

The Ontario College of Teachers published its *Framework for Professional Learning* in 2016, predicated on the assumption that professional learning in a key aspect of teacher professionalism. The framework establishes guiding principles setting out goals, links to standards, the importance of reflection, teacher autonomy and the role of communities of practice. A fundamental aspect of the framework is that teachers control their own professional learning: 'Autonomy in professional learning lies at the heart of teacher professionalism. Members of the College are intrinsically motivated to stay current' (p. 6). Teaching is framed as profession requiring continual self-directed learning. External accreditation, accredited by the Ontario College of Teachers, is available for specific additional qualifications, 'AQs', which 'reflect the rich diversity and complexity of Ontario's educational system' (p. 12). They also contribute to qualifications for leadership roles. Predating the *Framework*, Bruce, Esmonde, Ross, Dookie, and Beatty (2010) suggested, based on a case study of Ontario school districts, that a key enabling condition for professional learning was prior experience of professional learning. This suggests that embedding the practice of professional learning in the culture of the district or province provide the necessary conditions to support and encourage teachers' engagement.

British Columbia

The evidence suggests that British Columbia has a thorough and extensive system of professional learning (Brown, Hales, Kuehn and Steffensen, 2017). The Teachers' Qualification Service classifies teachers according to their formal qualifications to determine salary levels; an average of over 1500 teachers per year upgrade their qualifications and salary, while roles in school or district administration require a qualification at masters' level. Professional organizations offer courses and programmes tailored to the current needs of different professionals across the education service, including teachers, administrators, school leaders and trustees. The programmes include courses in the traditional sense, but also structured opportunities for collaborative learning and professional enquiry. Ongoing themes are the focus for many of these programmes e.g. 'aboriginal content and way of knowing' (p.31) or addressing the effects of poverty on learning. In addition, when the case study was produced, BC was in the process of reforming its curriculum and professional learning on

curriculum change has become a priority. The Ministry of Education was working towards the goal of creating a framework for professional learning to support various professional learning activities.

2.4 Australia and New Zealand

2.4.1 Australia

There has been a long period of debate about the recognition and accreditation of teachers' professional learning and development in recent years. These debates have focussed on where systems for accreditation for professional learning (most notably Initial Teacher Education) should rest, be they at national or, and state and territory level (Brennan and Willis, 2008; Savage and Lingard, 2018); the extent to which career stage-specific recognition for accomplished practice should be standards-based and how such standards should be defined, expressed, and by whom they should be developed and 'owned' (Ingvarson, 2010; Ingvarson, 2014).

The 1990s in Australia saw the introduction of a system of recognising professional learning and pedagogical leadership through the Advanced Skills Teacher programme, where successful recognition led to salary increments (Ingvarson, 2010). However, Ingvarson (2010: 52-3) also notes that these salary increments were often too small, that the AST career path came to be considered a career trajectory 'dead end', and that teachers were still more inclined to pursue the traditional methods of promotion, and higher salaries, through applying for administrative and leadership posts in schools. He concludes that 'Because of this, AST schemes were unable to provide and effective 'engine' for lifting teaching standards, or strong-enough incentives for most teachers to seek the kind of professional learning that would help them reach high performance standards' (*Ibid.*: 53).

More recently, the Australian Institute for Teaching and School Leadership (AITSL) has developed and implemented national accreditation standards for teachers, which are assessed across the domains of professional knowledge, practice and engagement. The framework outlines four career stages: Graduate Teachers, Proficient Teachers, Highly-Accomplished Teachers and Lead Teachers at which standards are stage-specific (AITSL, 2011).

Of the Professional Standards themselves, Standard 7 relates specifically to Engagement in Professional Learning: all teachers, regardless of career-stage are expected to:

- Identify and plan professional learning needs;
- Engage in professional learning and improve practice;
- Engage with colleagues and improve practice;
- Apply professional learning and improve student learning. (*Ibid*.: 18).

The framework includes a specific articulation of the expectations in respect of each of these aspects of professional learning which is consistent with each career stage: for example, in 'Engaging in professional learning and improving practice', Proficient Teachers are expected to: 'Participate in learning to update knowledge and practice, targeted to professional needs and school and/or system priorities'. And, Lead teachers are expected to: 'Initiate collaborative relationships to expand

professional learning opportunities, engage in research, and provide quality opportunities and placements for pre-service teachers.' (*Ibid*. 18). Engagement with professional learning against the standards is described as 'self-paced' (Lloyd *et al*. 2016: 25). In trialling a portfolio-based collection and assessment of evidence for recognition against the High Accomplished standards, Ingvarson (2018) found that the process itself of putting together a portfolio for recognition was perceived, by those doing so, to be a valuable exercise in professional learning, especially if groups of teachers were preparing their portfolios together.

There has been a broad welcome to the introduction of professional standards as a framework for the recognition of professional practice, knowledge, learning and engagement. Call (2018) notes that in AITSL's 2013 survey of Australian teachers, 83% (3,437) of teacher participants said that they thought the standards would improve the profession. However, the same survey also found that only 54% stated that they use the standards to inform their teaching (AITSL, 2014, cited in Call 2018).

2.4.2 New Zealand

New Zealand reformed its professional learning and development framework in 2015, with the aims of ensuring that its centrally-funded provision is more effective; is focussed on student outcomes in the government's priority areas; provides support for school leaders to help sustain improvement; and strengthens professional networks as a source of support for teachers and leaders (New Zealand Government, n.d.). The model is based on the accreditation of professional learning and development providers and facilitators, who, following accreditation, are licensed to provide centrally-funded professional development and learning in schools.

New Zealand also operates a recognition system for highly-skilled teaching practitioners, called the Advanced Classroom Expertise Teacher Recognition programme. Assessment is portfolio-based, and applications are evaluated against New Zealand's 'Experienced Teacher Professional Standards' which sit within the country's *Interim Framework of Professional Standards for Teachers* (New Zealand Ministry of Education., n.d.). One of the criteria for achieving Advanced Classroom Expertise Teacher status relates to the extent to which the applicant can evidence sustained engagement with professional learning. Successful applicants are required to show '**Exemplary ongoing professional learning and development' and include '**evidence of ongoing professional learning and development as part of a regular in school appraisal process' (*Ibid*.)

2.5   Summary

The states and countries reviewed demonstrate considerable variation in their approach to professional learning. Very broadly, the models could be placed on a continuum from a formal career progression based on externally provided state-approved professional learning and to a model of professional learning embedded in practice which responds directly to the needs of learners and schools. However, such a 'polar' interpretation misses the subtlety of variation and ways in which professional learning is embedded in the learning culture of each state or province. The most

formalised systems, such as Shanghai, Singapore, South Korea and Hong Kong offer a clear professional progression linked to centrally-approved professional learning opportunities. It has been suggested that there are cultural factors at work here (Zhang & Ng, 2011), but it is worth noting that career progression and salary in British Columbia are also directly linked to additional qualifications and that teacher grades in Hungary are also linked to professional learning. Accreditation in New Zealand, however, is focused on the training providers to provide consistency, and a co-ordinated focus on government-mandated priorities and outcomes. Skilled practitioners are recognised through a formalised programme, requiring engagement with professional learning among other evidence of practice.

A different version of the formal model is found in some US states where teachers must renew their licenses periodically. Licence renewal may be dependent on professional learning but the term can cover a range of activities from postgraduate courses to study visits abroad. An alternative model is the framework for professional learning such as that in operation in Scotland and proposed in Northern Ireland. This model assumes that teaching is a long-term profession underpinned by professional learning or development. In Scotland teachers plan their professional learning to meet their own and their learners needs and record their learning in an annual Professional Update. A similar approach is planned in Northern Ireland, where the emphasis is on giving teachers control of their own learning. Teacher autonomy is central to the model operating in Ontario and Alberta. The role of education authorities there is to facilitate opportunities for collaborative learning, for example, by centrally planning non-teaching days so that teachers can work together on projects. Similar to Finland, in these Canadian provinces, the culture of professional learning appears to be deeply embedded in educational culture. Indeed, it is framed as an entitlement by teachers' professional organizations, who are also providers of professional learning in some contexts (Campbell et al, 2016). Similar to the Professional Update in Scotland, teachers in Canada reflect on their professional learning in an annual meeting with their line manager and also plan their personal learning targets for the next year. Learning cultures such as those identified in the Canadian provinces and Finland are perhaps unlikely to be created in the short term by an imposed framework or system of accreditation; they are built purposefully and carefully by providing teachers with the resources, autonomy and professional respect they need.

3.   Research Question 2: Is there any clear rationale for the application of any of those methods of recognition or accreditation?

The previous section has identified the broad variety of methods used across the international boundaries for the development of professional learning in the teaching arena. The methods applied for the development of teacher recognition or accreditation are varied and have been seen to be formal in certain countries and far more informal in others, centrally-mandated in some contexts and designed to facilitate autonomy in others; it is difficult to identify a consistent pattern of reasoning behind the development of these methods. Gelfand notes that such varying arrangements can reflect the 'tightness' or 'looseness' of the broader cultures within which education systems are situated (Gelfand *et al*., 2011: 1101); the strength of the norms in those cultures; and their tolerance, or intolerance of 'deviant behaviour' (*Ibid*.). In the educational context, the stronger and more restrictive these social and cultural norms, the less tolerance is granted for deviance from those norms, and this may impact upon the autonomy, independence and originality afforded to professional learning. Professional learning, within tighter cultures, may not encourage 'deviance' through autonomy of thought or practice, but rather an expected adherence to the official or expected norms.   In the consideration of the transferability of these practices and principles into the Welsh context, this 'tightness' or 'looseness' of the broader culture must be considered, and how, if at all, the principles and ideas could be interpreted in the 'looser' context of Wales.

It would seem, however, that there are two over-riding themes of rationale arising from the study of the professional learning models, those being a) the control of quality and b) the creation of culture. There is clearly an overlap between these two themes, but they seem sufficiently distinct to warrant independent discussion in this context.

3.1   Quality Assurance and Control

For the purposes of this study, the control of quality is taken to mean that the professional learning recognition methods and systems in certain countries and cultures are systematically controlled to a greater or lesser extent in order that the central powers – government or education ministries can regulate, direct and evaluate the development of teachers and the effectiveness of education within their regions. 'Control of quality', which may relate to specific initiatives or to identified needs in the system, seems to be a strong motivating factor influencing decisions in these specific contexts. But in addition to quality assurance, central control is also a mechanism for ensuring that government-mandated priorities and outcomes are supported and met via the provision of professional learning.

The 'control of quality' can be evidenced in a variety of ways. The development of relatively rigid frameworks outlining the requirements and expectations from professional learning can be seen in systems in South Korea and Shanghai, where the professional learning is not perhaps not designed or provided for primarily personal development, but is intrinsically linked to local performance management systems – EPMS in Shanghai and the National Performance Appraisal Programme in South Korea (National Centre on Education and the Economy (2018). In these contexts, government also control and/or accredit the professional learning programmes available, thus ensuring the consistency of the provision available. Whilst there may be benefits for this method in terms of

consistency of vision and provision, it may not address the requirements of individual areas, schools and individuals (Park and So, 2014). The linking of the professional learning to the appraisal system does provide a measure of accountability within the process and can increase motivation through the opportunities for promotion and enhancement of salaries, but may not engender a positive, intrinsic motivation for development and the pupils' benefit (Zhang, Ding, Xu, 2016).

It should be noted that not all frameworks for professional learning need the same degree of rigidity since there are such frameworks in place in Ontario, Canada, although the engagement with the professional learning is autonomous (Ontario College of Teachers, 2016). This may indicate an overlapping of the top-down structure with a developed culture from the ground up.

Formal academic qualifications could be regarded as methods of controlling quality also, since they provide an external measure of the level of academic expectation. However, there is little evidence that this is strategically used beyond the initial teacher education in Finland, Hungary and for Secondary teachers in Shanghai, China (National Center on Education and the Economy, 2018). In this context it is also necessary to note that the level of academic engagement is not a distinctive indicator of the quality or impact of professional learning provision. Kennedy (2005: 238) states that an "award-bearing model of CPD" encompasses the completion of programmes of study that are usually validated by universities. The "external validation" demonstrates quality assurance but "can be viewed as the exercise of control by the validating and/or funding bodies" (Kennedy 2005:238).

In alternative employment roles, in medicine or law, frameworks of professional learning are provided where all employees are required to undertake professional learning but the content of these is not prescribed, and indeed, in some scenarios, their effectiveness is measured according to applied outcomes rather than programmes prescribed, accredited or demanded by the governing bodies(E.g. Law Society, no date). Whilst considering professional learning for medics, it is apparent that completing accredited programmes is not compulsory but many doctors choose this route because they feel that such programmes will be of a higher quality and free from bias (Academy of Medical Royal Colleges, 2012). However, Legare et al. (2015) state that most accredited medical PL activities focus on sharing knowledge about quality of practice rather than actually resulting in a change in the professional's behaviour.

3.2   Creation of Culture

The alternative rationale for methods of recognition in professional learning is that where the systems and frameworks are more loosely applied in a local context and /or seek to develop an ethos or mind-set of professional learning and development within the profession as a whole, without necessarily prescribing or insisting on specific requirements. Some of the models reviewed above which recognise accomplished and advanced teachers, do include a specific set of expectations relating to sustained engagement with professional learning, but are not always prescriptive about content or focus. The literature presents evidence of the existence of PL cultures and some evidence of how they can be sustained (e.g. Alberta) but it is not clear how such cultures are built in the first instance (Osmond-Johnson, Zeichner, and Campbell, 2017).

The application of policies or frameworks of professional learning can be effective in this context in providing a better coherence to career-long professional learning (Black, et al, 2016) and also providing a "shared language" (Black, et al, 2016: 7). As noted, in Ontario, such a framework is in place to provide that coherence but the level of engagement is individually decided by teachers. One interesting and attractive method of enabling a culture of development and learning within the teaching profession is the establishment of clear and identifiable markers of professional status. The Master Teachers' recognition in South Korea (National Centre on Education and the Economy (2018) is a highly desirable status which is identified through the experiences and the qualifications of individuals and is limited to a very small percentage of the profession. Similar stages of development can be also found in the Shanghai and Singapore systems where progression and development in relation to status is important (Jensen, Sonnemann, Roberts-Hull, Hunter, 2016). It may be considered that there is a cultural bias towards the value and importance of status and esteem within these cultures but a similar progression of standing can be found in the Australian system with possible advancement from graduate teachers through to the highest level of Lead Teachers (AITSL, 2011). This may offer a culture of improvement which does not necessarily relate to salary or career development but still provides a clear indication of advancement and enhanced status and standing.

It could be considered in this context also that the use of academic qualifications could contribute to improved status, as well as academic standing. There is little empirical evidence to suggest that this does create a culture of professional learning, mainly due to the fact that there is little insistence on the gaining of academic qualifications for professional learning activities and countries such as Northern Ireland and Scotland seem to identify the more widespread current notion that it is acceptable for professional learning to be accredited or provide further qualifications but that this is not a requirement (GTCS, 2015). Attempts to develop a culture where further academic qualifications are gained have been limited in England and Wales, where the Masters in Teaching and Learning (England), although it seemed to develop teachers' sense of esteem and positive feeling regarding the profession, fell by the wayside after a very short period of time (Thomas, 2016). There was a similar tale when the Masters in Educational Practice (Wales) was shown to increase beginning teachers' sense of professionalism and agency (Connolly et al, 2018) but was withdrawn after five years and three full cohorts.

A further consideration in the development of cultures of professional learning within teaching professions is the use of non-academic qualifications or credentials. This may be similar to the National Professional Qualifications in the UK, where, although some HE institutions may consider them to be equivalent to academic credits, their main value seems to be in the status they provide or the assurance of standards of professional learning. The NPQH is an example of this in terms of the assured standing it offers for potential head teachers, a requirement for head teachers' appointment in Wales but optional in England. The establishment of such systems of formal but non-academic qualifications may offer some support for the development of a culture of professional learning.

4.   Research Question 3: What does the literature suggest regarding the impact of the types of recognition or accreditation on a) engagement with Professional Learning and b) the effectiveness of Professional Learning?

With limited academic discussion on the recognition and accreditation of professional learning there is thus very limited literature available on engagement and the effectiveness of PL, particularly due to the difficulties of disentangling the significant number of variables which could contribute towards both the engagement and the effectiveness (Yoon et al, 2007).

4.1   Engagement

Teacher development is affected by several factors outside the school, e.g. social, as well as values, beliefs and career stage (Day and Gu, 2017). Professional learning opportunities are used in different ways at different career stages: engagement with formal professional learning opportunities increased until mid-career then decreased; engagement with literature increased with age; engagement with collaboration decreased with age (Richter et al, 2011). Coldwell (2017), having reviewed international literature, explains that individuals' career stages influences the engagement and effectiveness of professional learning. It seems that where voluntary engagement is concerned, it does not necessarily drop, instead the preferred format changes from group learning to individual research; perhaps older teachers are looking for shorter-term effects (Richter et al, 2011). There is a fairly large international literature (e.g. Day & Gu, 2010; Huberman, 1995; Kelchtermans, 1993; Richter, Kunter, Klusmann, Lüdtke, & Baumert, 2011; Sikes, Measor, & Woods, 1985) exploring the relationships between career stage and professional development that theorises that career stage influences individuals' take up of, or the effectiveness of different types of, professional development." (Coldwell, 2017: 190). Richter et al (2011) also found that in the USA engagement with formal professional learning opportunities was consistent across careers; in this German study it was not. In Germany, teachers were not obliged to attend training courses, whereas in the USA they were. This may also explain differences in the types of courses chosen.

Within the variable factors that will contribute towards the engagement of teachers in the professional learning process is whether the provision is compulsory or voluntary. There are systems where professional learning is compulsory and thus engagement is significant although questions have been raised about the relevance and quality of engagement (Park & So, 2014).   Some studies have emphasised the importance of teachers' ownership of, and agency over, their professional learning and development (Bell and Gilbert, 1996, cited in Fraser, et al. 2007), and suggested that effective PL needs to be driven by the needs of those participating in it (Darling-Hammond and McLaughlin, 1995). Day and Gu (2007: 424) have argued for a framework which takes account of three dimensions of influence on teachers' need for, and engagement with, PL. These are 'personal factors', school-level 'situated' factors, and 'professional factors' – the latter consisting of teachers' professional values and beliefs, and the interaction between these and external policy agendas and changes. They also examine the validity of a normative model of PL progression, suggesting that PL pathways towards expertise in teaching are not always necessarily 'linear' and 'straight' (Ibid., 426; Fullan, 1993, cited in

Day and Gu, 2007). Yet, clearly at certain key career phases and times of reform, we can observe some commonality in teachers' PL needs and engagement patterns, which align with role expectations or identified career trajectories (Richter et al., 2011, Coldwell 2017).

The culture of collaboration is well-established in Alberta and was centrally supported between 2000 and 2014 through the Alberta Initiative for School Improvement (AISI). The scheme enabled teachers to collaborate in action research projects to meet local needs in schools and districts. During its lifetime its effectiveness was measured in a number of ways including student achievement which showed an increase across the province. It is suggested that since funding for the project was withdrawn, although some forms of professional learning currently available 'carry the spirit and essence of AISI' (Campbell et al 2017: 58), the lack of provincial policy support limits teachers' access.

Factors other than accreditation or formal recognition have been shown to have an impact on engagement. Between 2012 and 2015, 57 out of 60 school districts in British Columbia participated in a collaborative enquiry project *Changing Results for Young Readers (CR4YR).* The project, initiated by the Ministry of Education, was framed to give teachers networking opportunities, the support of a facilitator and the freedom to devise enquiry projects appropriate to their context. The breadth of participation in the projects ensured that significant numbers of learners were the focus of case studies and the results of the research were recognised by publication on the CR4YR website to support capacity building in the profession (Brown et al, 2017).

4.2   Effectiveness

Kennedy (2016) identifies the difficulties in analysing the effectiveness of professional learning, significantly because there is no clear consensus on 'teaching and teacher learning' (p.946). However, the OECD (2016: 29) state ' "effective" teacher professional development that has an impact on teachers' instructional practices are activities that take place in schools and allow teachers to work over time, in collaborative groups, on problems of practice.' Whilst this may provide some framework for identifying the effectiveness of professional learning, trying to narrow that discussion to the direct impact and effectiveness of methods of recognition or accreditation is more difficult and provides the reason why little literature exists to that end.

Fraser et al (2007), Postholm (2012) and Jurasaite-Harbison and Rex (2010) agree that effective professional development depends on the culture prevalent within schools and the value they place on learners' and teachers' progress and development. Kwakman (2003) explains that teachers will engage in PL if it is collaborative. The reward is the learning culture obtained. "Collaboration is assumed to create a learning culture and helps to build a community in which further learning is supported and stimulated." (Kwakman, 2003: 152).

A more detailed study of specific schools and comparison of international practice noted that the culture and traditions of individual schools are powerful determinants of teachers' engagement with professional learning (Jurasaite-Harbison and Rex, 2010). This may suggest that there is a correlation between the culture of schools and even of systems, and the effectiveness of professional development, and that the establishment of formal and informal methods of recognition and qualification can contribute towards this effective culture. Nevertheless, Kennedy (2005) identifies the dangers of having such methods of recognition and qualification tied with systems of appraisal and performance management since it can undermine the essential nature of the communities of practice required.

Linked to the concept of effective use of recognition and accreditation, Fullan et al (2015) argues that starting with standards is 'the wrong way to drive change' (p. 12) and it may be necessary to ensure that the structure or standards required do not constrain or enforce a method on the teaching populations. Black et al (2016) and GTC Scotland (2018) both identify the dangers of conflating individual professional development with training regarding national priorities.

There seems to be little evidence in the literature regarding the desirability of developing professional learning systems that lead to formal, academic qualifications, although the OECD (2011) note that teachers in the TALIS data suggest that more effective professional development is found in longer courses that may upgrade qualifications. However, the causal link between the effectiveness and the qualification is not clearly identified. In addition, OECD (2009) indicates that only small number of teachers engage with qualification programmes, in contrast to the majority that engage in some form of courses and workshops. Zuzovsky (2009) identify the inconclusive perspectives of literature on the impact and effects of advanced degrees and conclude that such indicators 'had only marginal and statistically non-significant positive relationships with student achievement.' (p.55).

Although there is little evidence for the benefits of the academic recognition of professional learning, there have been suggestions that a less formal structure of recognition, through such methods as a clear career ladder may be an element found in many high-performing education systems (Tucker, 2016). Care must be taken, however, that such external impositions may not undermine teachers' professionalism and agency by encouraging reliance on those making the decisions, which could even impact their assessment 'of their own capacity to teach' (Kennedy, 2005: 241).

A further potential difficulty, which can undermine the effectiveness of this type of recognition is that it may lead to a 'two-tier profession' (Thomas, 2016: 229) which may not encourage or develop the collaborative culture of professional learning which is desired. In addition, it could polarise the academic from the professional which would strain the coherence of any system or framework which may be put in place.

A key pocket of research, finally, has consistently linked teacher efficacy and student achievement, indicating the former as a reliable precursor to, and predictor of, the latter. There seems to be an indirect but powerful relationship between increasing teacher efficacy and increased student achievement; research theorizations indicate that teacher efficacy, mediated by contextual factors, impacts what teacher learn from CPD, and how they learn, with reciprocal and reverberating effects." (Caena, 2011: 11).

5. **Conclusion - The impact of academic accreditation and recognition on engagement with Professional Learning**

5.1 What are the most effective models of accreditation of PL?

The evidence in the previous sections of this document identify a number of interesting and useful models and methods of formally and informally accrediting and recognising professional learning. Their effectiveness and replicability in the Welsh context must be considered in a cautious and measured way, since the cultural and political environments in which some of these models are evidenced would be significantly different from the cultural and political setting of Wales.

Whilst the question above focusses on the accreditation of professional learning, primarily in an academic context, the absence of significant evidence in the literature regarding this narrow field has required a broadening of scope by considering formal and informal recognition as well as academic accreditation.

Whilst retaining those caveats, the main models of accreditation and recognition of professional learning identified were as follows:

	Formal - Compulsory	Formal - Optional	Informal – Compulsory	Informal Optional
Academic qualification	• M level ITE (Fin) (Hungary, Shanghai - secondary)	• MEP (Wal) • Advanced Skills Teachers (Eng) • Qualification opportunities through scholarships - based on appraisal (Singapore)		• Possible 3 step pathway to M-level - Middle Leadership, Into Headship, In Headship (Sco)
Non-academic qualification	• NPQH (Wal)	• NPQ (Eng, Wal)		
Recognition - framework	• Teacher Competencies Framework (HK) • Teacher Appraisal for Professional Development (Singapore) • National Performance Management System - EPMS (Singapore)	• Graduate teachers - Proficient Teachers - Highly-Accomplished Teachers - Lead Teachers (Aus) • Advanced Classroom Expertise Teacher Recognition scheme (NZ)	• Framework for Professional Learning (Can Ont) - but autonomous engagement	

	• Professional Update (Scotland)	• Master Teachers - based on qualification and experience (S Korea) • Master Teachers / Famous Teachers (Shanghai)		
Recognition - culture	• Professional Learning Passport - NQT(Wal) • Professional Learning Record – all teachers (Scotland)	• Professional Learning Passport - non-NQT(Wal) • Recognised roles eg Curriculum Leaders (HK) • Master Teachers - based on qualification and experience (S Korea) • Master Teachers / Famous Teachers (Shanghai)		

Due to the nature of the models, the variation as to whether they were compulsory or optional, the extent of government influence on the provisions and the implication of the local culture and attitude towards professional learning, along with the difficulty of accessing any literature which can usefully attribute any empirical and objective measures of effectiveness in relation to models of professional learning, it is impossible to identify any individual, particular model which may be effective in Wales. However, the principles which may be identified from these various models are:

- That there is little international evidence that academic qualifications are a requirement beyond initial teacher education.
- That the academic qualifications in initial teacher education is varied, but generally a bachelor's degree is desirable, with some countries requiring Master's level qualifications.
- Where there is no requirement for academic accreditation for professional learning, there is no clear appetite for engagement with such schemes.
- Academic or non-academic accreditation is more desirable where there is either a compulsion to engage with such systems or where the culture of the profession creates a desirability for

such qualifications or accreditation (Darling-Hammond and McLaughlin, 1995; Day and Gu, 2007).

- Where qualification or accreditation is optional, there can be a tendency for such schemes to lose the favour of the organisers or the participants (Master's in Educational Practice, Advanced Skills Teachers).
- The general outcome for academic accreditation or qualification appears to be that it can be accepted or is desirable within a framework but is not compulsory.

5.2 What system-wide alternatives to qualifications-based recognition exist?

With such a limited evidence base for qualification-based recognition, the alternatives appear to be more mainstream and generally adopted. These tend to be the development of a framework of recognition for professional development and career progress, where there may be a clear ladder of progression within the profession. This can be seen in the 'Teacher Competencies Framework' in Hong Kong, the 'Advanced Classroom Expertise Teacher Recognition' scheme in New Zealand and the 'Framework for Professional Learning' in Ontario, Canada. In countries where the government maintain a more prescriptive grasp on the teaching profession these frameworks are linked to a performance management or appraisal system (e.g. Zhang, Ding, Xu, 2016), which, in the more liberal context of Wales, may not be a desirable outcome. The problems of linking the Professional Learning framework to the performance management is that the motivations for professional learning become less classroom focussed and altruistic in nature, but rather become focussed on personal gain or status, which may impact the genuine, pupil centred benefits of effective professional learning (e.g. Park & So, 2014). However, the Framework for Professional Learning found in Ontario does offer the structure for engagement and recognition of professional learning, but engagement with it is autonomous and individual (Ontario College of Teachers, 2016). This places the onus on the teacher to engage professionally with the framework, developing personal professional motivations.

The Australian model of a professional progression and recognition is interesting and useful. It provides that ladder of progression – from Graduate to Proficient to Highly-Accomplished teachers, and then to Lead teachers (AITSL, 2011). This would appear to provide a target for development outside the usual pattern of career pathways which emphasise formal management and leadership progression. This seems a logical and reasonable method of providing a progression route which will appeal to the majority of the profession and not just those who wish to manage or lead. There are similar alternatives in Shanghai and South Korea (National Centre on Education and the Economy, 2018; Jensen, Sonnemann, Roberts-Hull, Hunter, 2016), but these tend to be effective due to the contextual social values of status and standing within the community. This does not dismiss the concepts entirely – there is, in every culture, the wish to maintain or develop status and position, and it may be possible to develop a culture within Wales where this type of progression route is given esteem and general approval.

5.3 What does the literature tell us about the impact of academic accreditation on engagement?

As noted, there is very little evidence that academic accreditation has an impact on teachers' engagement with professional learning. Academic accreditation may just be seen as quality assurance of the process rather the outcome, and at times, may be driving an agenda which is different from

that desired by the professional learner (Kennedy, 2005). Where this is the case, it is likely to lessen engagement with professional learning rather than increase it.

It must be noted that there is evidence to suggest that how teachers engage with professional learning does vary according to their stage of development and desired career pathways and that there may be some commonality in their needs and engagement patterns (Richter et al., 2011; Coldwell, 2017). Without developing a compulsory model of academic accreditation, the main ways academic accreditation can used to enhance engagement with professional learning is through the availability of optional academically accredited courses, which have a flexible structure to enable the content to be selected and driven by the individual or local need. There is indication that where collaboration can be developed in professional learning, that the engagement with such programmes is enhanced and improved (Campbell et al., 2017).

Attempts to develop academically accredited schemes and programmes have foundered where they have little synergy with other schemes or frameworks, for example, the Master's in Educational Practice in Wales, where, politically and educationally, it may not have meshed with other requirements within the system. This, along with other factors, may have led to its early demise, where an integration of academically accredited options along with other possible routes within a coherent framework of professional learning may offer a more integrated and effective enabling of engagement for all teachers.

Recommendations

- That recognition or accreditation is a desirable element for Professional Learning in

    a) strengthening the professionalism of teaching,
    b) improving the professional status of teachers in the eyes of the general public (Wingrave and McMahon, 2016).
    c) that it can provide a measure and method of standardisation of development opportunities.

- That a framework of professional learning is developed in Wales which provides options for academically accredited and non-academically accredited provisions (Donaldson, 2010).
- That accreditation and recognition should not be main driver for Professional Learning but should be a natural outcome of a professional ethos of continuous improvement (Fullan and Hargreaves, 2015).
- That such a framework is planned in synergy with other requirements, such as QTS, NQT and Leadership requirements.
- That the framework should aim to develop a culture of professional learning which builds from the needs of the individual teacher, school and area and is driven from the ground up. Accreditation and recognition must be accommodated within a Professional Learning framework that is flexible, locally driven, embedded in classroom practice (Opfer 2016, McKinsey 2007) to allow for personal and institutional motivation and focused on student learning and on local school goals (Kools and Stoll, 2016).
- That care is taken that any external impositions may not undermine teachers' professionalism and agency (Kennedy, 2005: 241) or that national priorities do not completely take over individuals' professional learning time (Black et al, 2016; GTC Scotland; 2018)

- That care is taken to avoid the development of a 'two-tier profession' (Thomas, 2016: 229) which may not encourage or develop the collaborative culture of professional learning which is desired and could polarise the academic from the professional which would strain the coherence of any system or framework which may be put in place.
- That the recording of Professional Learning in a form such as the Professional Learning Passport is the baseline for the recognition and acknowledgement of Professional Learning in the profession.
- That a progression ladder is developed which recognises development within teaching and learning and acknowledges the achievements, developments and learning of all teachers. It should be optional but give all teachers a route of acknowledgement which runs parallel to, and, for some, in addition to, the usual career progression into management and formal leadership.

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