REVIEWING KENNEDY'S MODELS OF CPD AND THE RELEVANCE IN TEL

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AUTHORS' CONTRIBUTIONS

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ABSTRACT

Educators are under increasing pressure to incorporate new kinds of pedagogy while also changing their teaching methods. In the literature, there is a strong debate about whether CPD should be handled by the organisation or by the individual. When thought is applied to CPD, it can appear complex, resulting in educators not partaking in CPD. Teachers report that CPD can be organised in a variety of ways, but determining the best suited model is difficult. Kennedy (2005) suggests nine categories for categorising CPD. These categories describe possible knowledge acquisition locations and discuss how they could be adopted and investigated. The following review will critique Kennedy's models of CPD and its appropriateness for TEL.

Keywords: Professional development; education; TEL, transformative.

1. INTRODUCTION

"Educators have become pressured to accept new forms of pedagogy alongside making changes to their teaching practice. There is an active debate in the literature around whether it should be the organisation (school) or the individual (teacher) who takes responsibility for CPD" [1]. Although most professional development experiences are targeted at enhancing knowledge, some researchers and scholars have argued that it is the context in which knowledge acquisition is required and subsequently used that helps the nature of that knowledge. Eraut [2]) argues that "there are three contexts in which knowledge is acquired: 1) the academic context, 2) the institutional context, and 3) the practice itself. Nevertheless, these contexts do not consider the concept of informal discussions and reading". "Teachers report that CPD can be organised in several different ways, yet, identifying the most appropriate model of CPD is challenging" [3]. Thus, Kennedy [4] proposes "nine categories in which CPD may be grouped. These categories identify the potential knowledge acquisition areas and consider how they might be adopted and explored" [4]. The nine models of CPD include training, award-bearing, deficit, cascade, standards-based, coaching/mentoring, a community of practice, action research, and transformative; these models will enable the author to explore CPD and its relevance in a TEL context.

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2. REVIEWING KENNEDY'S MODELS OF CPD

Kennedy's [4] spectrum of CPD models and the purpose of models are shown below in Fig. 1.

There is increasing capacity for teacher autonomy as teachers move from transmission through to transitional and transformative CPD.

"The training model is a popular model of CPD as it allows teachers to update their skills with training from an individual or group with expertise. The expert will traditionally deliver the training, whilst the teacher plays a passive role in the session. Most of this training takes away from a teacher's school, either at another school within a local trust or at an educational conference. For example, teachers across an academy trust would merge to participate in basic iPad training by an I.T. expert. There are concerns that this type of training often lacks a connection to the classroom context [5] and, due to the importance of this factor, may be deemed as a failure of this type of training event". However, this model supports quality assurance, narrowing training needs and requiring standardisation. At times, agreeing on a particular skill and agreeing on a standard that may suit the majority of training attendees often overshadows teachers' own development needs. "However, in the U.K., there is a notion that standardisation of training equates to improvements in teaching and learning (as in Ofsted). The training model provides an efficient way for educational stakeholders to control the digital agenda by limiting the teachers to passive roles. Despite these criticisms, the training model is thought of as an effective means of introducing new knowledge [6,7]". A notable example is standardised training for designated safeguarding officers at schools or meeting schools' digital and technology standards.

"The award-bearing model of CPD emphasises the completion of a particular award, usually validated and hosted by a university. Similar to the training model, this may be considered a quality assurance mark" [4]. "Attaining Qualified Teacher Status (QTS) in the U.K. is a notable example. While gaining this qualification through various routes into teaching provides a necessary number of standardised experiences for those working towards becoming a teacher, researchers have argued that the support on these courses is often perceived as academic rather than practical" [8]. Therefore, there is pressure for award-bearing studies to focus increasingly on applied and classroom practice.

"Additionally, there is extensive enquiry over what the term 'qualified teacher status' actually means. It is thought that as digital technologies enter the classroom, the time will evolve and that pedagogical uses of these technologies should be integrated into the professional courses. However, generally, professional qualifications, such as QTS and a Postgraduate Certificate in Education (PGCE), are perceived as equating to effective teaching and learning practices in their own right" [4].
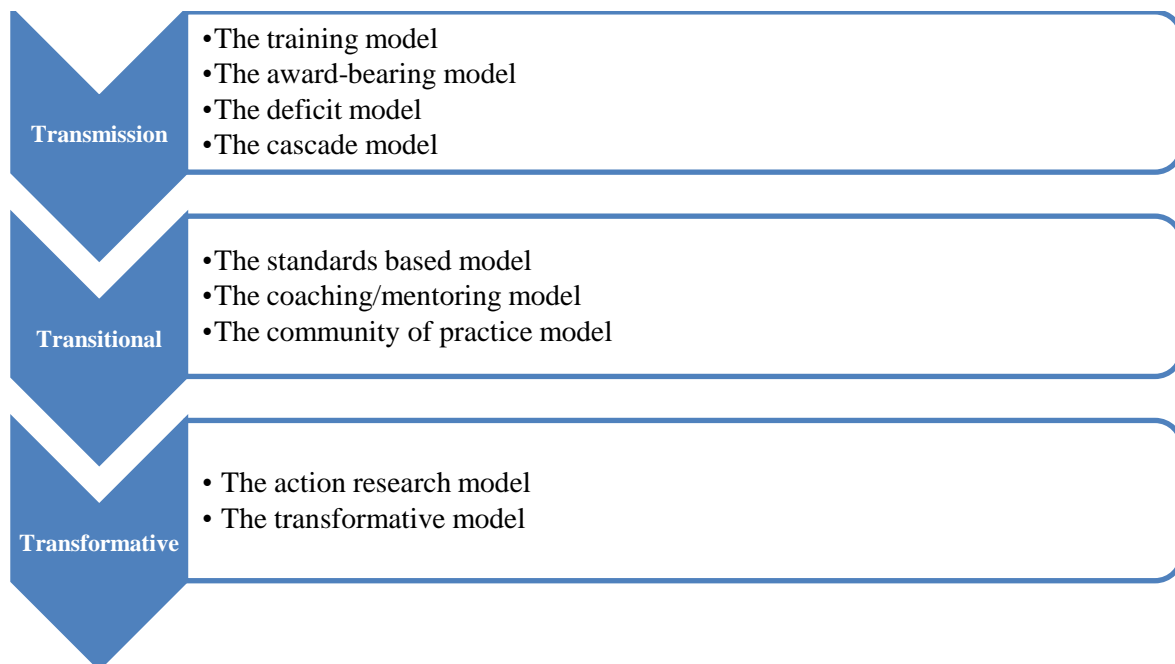

Transmission
- The training model
- The award-bearing model
- The deficit model
- The cascade model

Transitional
- The standards based model
- The coaching/mentoring model
- The community of practice model

Transformative
- The action research model
- The transformative model

Fig. 1. Kennedy's [4] spectrum of CPD models

"The deficit model is professional development that has been specifically designed to address an aspect of a teacher's skill set, such as their ability to teach using technology. In the 21st century, this appears to be an expected deficit in practice due to the uncertainty and tension around its purpose in the classroom [7]. In other words, expectations for successfully embedding technology in a pedagogical approach are not typically clear. The deficit model relies on performance management to evaluate a teacher's performance and identify their areas for improvement". Rhodes and Beneicke [9] argue that "performance management can raise the standards of teaching to 'greater efficiency, effectiveness, and accountability. Paradoxically, whilst used to address an individual's weakness, attributes relating to organisational and management practices may be identified".

"It would be inequitable to criticise a teacher's ability to differentiate on iPads when essential software/apps have not been purchased or successfully implemented across the school.

Other educators have discussed the drawbacks of the cascade model, particularly the cascading process, which is generally focused on knowledge rather than values focused" [8]. "The cascade model may involve teachers attending training and then disseminating the information to their colleagues in a feedback or school training style format" [4]. This is a popular training method in situations where resources are scarce and not all the teachers can attend training. For example, in a primary setting, the ICT subject specialist may attend a specific training day for their subject and then deliver a presentation on the new virtual learning environment". Day [5] argues that this model does not consider the ideas around participation, collaboration, and ownership, which may characterise teachers' learning [10]. This is often referred to as a technician's view of teaching [4].

"Rather than viewing teaching as a complex notion, the standards-based model represents a desire to 'create a system of teaching that can validate connections between teacher effectiveness and student learning' [11]. For example, a teacher must prove that they are accomplished at planning a lesson and teaching a class individually (as with Teaching Standard 4). A drawback to this model is that, at times, successfully meeting a 'standard' and focusing on the competence of individual teachers may be at the expense of collaborative learning. In this case, it may be beneficial for departments to plan and share resources collectively". Smyth [12] argues that "inspection and accountability of such standards indicate a lack of awareness of teachers' capacity to be reflective and critical". Beyer [11] argues that "teacher education should be infused with social purposes, future possibilities, economic realities, and moral directions rather than a standards-based model. Despite the literature being critical of this one-dimensional model, standards-based CPD can result in participation that allows teachers to engage with it". "Furthermore, standards-based CPD provides a common language, making it easier for teachers to engage in professional practice dialogue" [4].

"Coaching and mentoring involve counselling and professional friendship elements" [13]. Hence the coaching/mentoring model emphasises the importance of the one-to-one relationship between two teachers [4] This model argues that coaching and mentoring is where one teacher is a relative 'novice' in a particular skill area, and the other is considered an 'expert'. The foundation of this model is that CPD may take place in the school context but is enhanced by social dialogue between teachers. A trainee teacher, for example, would have support from a mentor, who would be responsible for coaching and assessing them against the teaching standards. A criticism of this model is that it is increasingly hierarchical, meaning that those being mentored may not be able to discuss their beliefs about teaching confidently.

Furthermore, Rhodes and Beinecke [13] argue that "peer coaching, whereby colleagues collectively work to reflect, refine, and build new skills, maybe additional support. Using the example above, this form of professional development may occur when a group of trainee teachers reflect collectively and coach each other during an informal session. However, assessing an individual follows a somewhat hierarchical philosophy, which presents potential problems for Rhodes and Beneick [13]. In other words, for this model to be considered as successful, individuals must be able to communicate well to convey messages about the cultural and social norms of teaching.

Although there are similarities between the coaching/mentoring model and the community of practice model, a significant difference is that the latter involves more than two participants, as with the trainee and mentor example [4]. The other significant difference is that it does not follow a hierarchical model, which was a considerable drawback of the previous model. Wenger [14] argues that all participants are members of one community, including understanding enterprise, mutual engagement, and developing a repertoire. Thus, central to the community of practice model is that teaching and learning within a community result from

interactions within that particular community, which is different from planned training/courses [4]. Students connect using platforms and online groups such as WhatsApp and Facebook, for example, and this type of interaction may deliver unplanned provision or consolidate learning. Boreham [15] argues that "learning through communities can be increasingly powerful for creating new knowledge beyond existing models".

The action research model is based on participants acting as researchers to improve a situation. Researchers often argue that if the context is relevant, this model may significantly impact practice [4,16]. For example, suppose a teacher is an active part of an iPad working party group which involves collecting data on how teachers use the technology in school. In that case, they may be in an enhanced position to pose further critical questions about their practice. Burbank and Kauchack [16] suggest that "the action research model encourages teachers to view research as a process rather than a product of another researcher.

Moreover, this model shifts the balance of power towards teachers as they successfully undertake research activities". However, Sachs [17] argues that "the parameters around their practice determine the extent to which teachers can effectively critique themselves. The action research model has a 'significant capacity for professional autonomy'" [4].

Hoban [6] argues that the transformative model of CPD provides a sense of awareness of power issues and, more specifically, a raised understanding of the power and potential of CPD. Finally, the transformative model considers several practices and conditions that have been mentioned above and supports an increasingly transformative agenda [4,7]. "In other words, this model of CPD becomes a means of supporting change in education [4,6] and is an effective integration of the previous eight models. However, there are tensions with the realisation of conflicting agendas and philosophies. It can be argued that some of the terminology used in Kennedy [4] is outdated; for example, the communities of practice model are commonly referred to as 'learning communities, and this reflects an emphasis on 'learning" rather than practice'. However, the models have been designed to help analyse patterns and trends in CPD, rather than a particular model being the sole purpose of CPD" [7]. Kennedy [7] concludes that the analysis of CPD models is not the finished article and more developing an enhanced understanding of CPD frameworks. Thus, terminologies around Kennedy's [4] models may evolve further, such as the action-based and transformative models.

3. DISCUSSION

There are three essential findings of CPD, the first being linked to 'how often' teachers are trained on TEL products and, more specifically, on social media. In TEL, this is interesting due to the number of teachers engaging with social platforms such as YouTube and Twitter [18]. This could be further exemplified by exploring the number of pupils using some form of social media and the requirement for teachers to be skilled in this area. Initially, it may be assumed that teachers work in ad-hoc ways for this type of training with the lack of scheduling of these sessions mentioned in the data, but this was not the case in most instances. The OECD (2005) identified that the purpose of CPD includes task-oriented development for staff for new functions, policy changes or problem-solving. Thus, CPD ought to be relevant and adopt social media.

Moreover, transformative CPD must consider a variation of the teachers' needs; in other words, a proficient technology educator may require different professional enrichment from a beginner. This is further illustrated through the social constructivist lens as training should consider the participants' special knowledge, skills, and beliefs. In other words, a teacher who is comfortable using technology and using it within the pedagogical context may have less frequent enrichment. This supports the notion that CPD provision is geared toward teachers' needs rather than school performance tables.

Interestingly, during the U.K. lockdown and period of remote learning, teachers were often receiving the similar less frequent and late CPD on teaching on the new platforms. This was particularly interesting as with increased usage and focus on technology; it may be assumed that CPD models, perhaps relating to Kennedy [4], were adapted. A typical example that teachers raise is that when the school decides on the platform to conduct remote sessions, such as Teams, Seesaw or Classroom, they are expected to possess the prior knowledge required to teach with them successfully. Although there is a universal problem in finding sufficient time for CPD, Bubb and Earley (2013) argue that schools in particular certainly do not make the best use of what is available. Essentially, this type of training is seen as less desirable than others [5], perhaps due to the complexity of TEL. Some teachers have argued that this may be the result of requirements from Ofsted that essentially shape how schools in the U.K. are administered. Currently, Ofsted does not assess TEL CPD. Furthermore, there remains an absence of the word 'technology' in the Teachers' standards which could explain how CPD is organised in the secondary phase.

There are profound differences in the relationship and interactions between technological tools and specific pedagogical practices. Beyond the lack of significant CPD, there appears to be a focus on technical knowledge favouring the perhaps more relevant relationship technology possesses in pedagogy. Understanding how technology relates to content knowledge and pedagogical knowledge will transform viewpoints from 'how do I use it and 'what is this?' towards the 'how do I teach with this' perspective. It is revealed that the administrative element, such as booking iPads, instrument training, and school policy on distributing, charging, and maintaining the technology in schools, takes precedence over meaningful teaching and learning. Wang (2002) argues that teachers' technological skills do not typically translate into effective use at a pedagogical level, supporting Koehler's (2006) TPACK frame-work. In other words, successfully using social media or an iPad at home does not necessarily result in good practice in the classroom. In this instance, the CPD effectively focusing on technological skills is disconnected from 'methods courses' and how technology can be effectively implemented into the classroom.

Additionally, there is little to no evidence that the technical CPD considers individual distinctions in participants, such as the complexity of personal, social, and professional factors. There was essentially a 'one size fits all approach to professional development. The author argues that this is a consequence of policymakers' 'simplistic messages that TEL represents pedagogical best practice' (Ingleby, Wilford and Hedges 2018). This has led to misinterpretations of social media and TEL. No necessary adjustments are made for how individuals associate with TEL and how they wish their students to interact with TEL; this was further illustrated during the lockdown. Transformative CPD may address some of these issues by allowing teachers opportunities that will impact their beliefs in technology, such as first-hand experience, where they can observe successful teaching with technology. Some teachers favour a 'double dip' method whereby teachers act as students whilst a learning technology expert leads the class as if they were the teachers. This 'gold standard' of practice is increasingly productive instead of simply admiring technology out of context (Koehler and Mishra 2008).

Finally, the 'who' is delivering particular training sessions is vital as unsuitable training may consider CPD in the form of enhancing knowledge rather than knowledge acquisition in the appropriate context. There are three contexts in which knowledge is acquired: 1) the academic context, 2) the institutional context, and 3) the practice itself [2]. Therefore, staff who have adopted the knowledge acquisition without assuming the other skills may experience challenges. Throughout this review, three types of 'instructors' are primarily referred to. The first is the senior leadership team (SLT). Despite being experienced practitioners, they are often overly focused on using technology for Ofsted, with training centred around technology in the administrative domain. Rather than training on enhancing learning and engagement, an approach of 'how do we evidence that we have used technology for Ofsted' is adopted.

Moreover, data reveals that social media training is delivered by the pastoral or safeguarding team at schools on occasions. At times, this is the SLT; however, in large schools, this could be via 'middle leaders'. This was particularly interesting as it indicates that social media is viewed through the lens of safeguarding and digital footprints, and this form of technology is regarded with caution. Despite extensive accounts of teachers using it personally and professionally, policymakers do not seem to engage with the wide range of social and professional benefits that social media can deliver. I argue that regardless of how social media is viewed, it is necessary that teachers and students alike are aware of the risks and benefits associated.

Additionally, 'tech savvy' teachers may adopt the role of 'technology specialist' from their own experience using technology and teacher advocates. At times, the three roles listed above do not make clear links between pedagogy and social media and, subsequently, pupils' learning. Therefore, it is unsurprising that teachers do not feel that they are part of a rich professional learning community in a social media context. 'Professional learning communities' is a term coined by social constructivists who argue that social interactions with technological tools develop an understanding of how effective CPD can facilitate teaching and learning. Only a few successful training examples focus on how technology can benefit the teacher instead of digital activity. These come from schools that used Google Classroom. Google for education provides teachers with certification for demonstrating the advanced knowledge, skills and competencies needed to integrate digital tools.

Furthermore, Google for Education Trainers are professionals who empower educators to use technology in the classroom through high-quality training. Professional development delivered by certified trainers in technology and pedagogy has appeared successful in this study. Interestingly, the trainers were not external educators, but instead, teachers were already working at the school, and they followed this route to benefit their staff training. Seesaw was a popular social platform used during the

pandemic, and they also provided certification and 'badges' for those who wished to foster technology and leadership skills.

With an absence of how technology skills can translate to practical use at a pedagogical level, teachers are not trained with suitable and consistent models for teaching and learning. Furthermore, a consistent approach does not address the complexities of social, personal, and professional factors. Consequently, there is an indication that CPD is severely underdeveloped across the TEL domain.

Kennedy's [4] transformative CPD consists of the action research-based model or 'communities of practice', which involves teachers acting as researchers to improve a problem. The transformative model believes that CPD is a means to support educational change and may combine multiple forms. Transformative CPD is a development of both transmission and transitional phases and leads to greater teacher autonomy over their professional learning. The flexibility of transformative action is the capacity to adopt multiple personal and professional identities, and this is a more inclusive and social process. Most research findings do not evidence significant transformative CPD with gaps in effectively developing teachers' past experiences. The training also appears to exclude a person-centred approach that has been identified as a successful way of developing practitioner confidence in pedagogy (Lightfoot and Frost 2015). Training in this domain ought to first recognise and then subsequently introduce transformative CPD to ensure teachers can realise new and profound ways of thinking about and understanding their pedagogical strategies for TEL and social platforms.

Through Trowler's lens, teachers can reflect and critique through observations and active experimentation above restrictive instructional methods that focus on pastoral over pedagogical content. This model is also embraced in social constructivists' research, revealing that collaborative practice is fundamentally embedded in effective CPD and can be constructed through social dialogue and social learning processes. Schools may be limited in adopting transformative models within their TEL CPD scheduling, as it requires greater capacity. Kennedy [4]) argues that few models are transformative, predominantly the result of this process requiring more significant time and effort.

4. CONCLUSION

Issues around professional development modules in education are long-standing, and debates about the

effectiveness of CPD go beyond the recent technological advancements. Although education professionals agree that effective CPD is essential for success as a practitioner [4] and the learner (Atencio, Jess and Dewar, 2012; Darling-Hammond et al., 2009), the 'how' to deliver successful TEL remains contentious. Some scholars (Webster and Wright 2009) have argued for a 'whatever works well' for that particular individual model. In contrast, other academics, including Aileen Kennedy, have attempted to address the spectrum of CPD models.

The literature in this area tends to focus on primary, secondary and HE levels, bypassing F.E., which is not ideal for gathering a holistic picture of CPD needs in education (Brooks & Gibson, 2012); [4], (Ingleby, 2015). Furthermore, there is support in the CPD literature for social constructivists' approaches to teaching and learning. Trowler [10] "makes this link by arguing that exploring social interactions with 'tools' supports understanding how effective CPD can facilitate teaching and learning in the 21st century".

Aileen Kennedy's [4,7] transformative CPD model suggests that teachers may benefit from a community of practice, with professional development leading to greater teacher autonomy. The flexibility of transformative action is the capacity to adopt multiple personal and professional identities, and this is a more inclusive and social process. Previous work has illustrated no significant transformative CPD as gaps exist in effectively developing teachers' past experiences [18].

As technology moves quickly, educators must understand effective pedagogical strategies rather than focusing on the technology itself. Furthermore, considering societal components, it is fundamental that teachers know how their teaching fits in with the bigger picture or broader context. In this way, educators will be able to adapt to changes that present themselves in the future effectively.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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