

Factors Affecting Academics' Involvement in TEL Continuing Professional Development (CPD)

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Abstract

Reinforcing the level of essentiality of understanding the factors that influence the involvement in TEL-oriented CPD and the challenges to the sustained expansion of their expertise not only for academics, but also professional bodies and educational developer for effective integration of digital technologies in teaching and learning remains is the current emphasis on strategic continuing professional development (CPD) programmes of technology enhanced learning (TEL) within higher education. A naturalistic approach and making use of qualitative method were applied in achieving the inquiry, using semi-structured interviews. The perceptions and views of twelve academics from one college in Qassim University (QU) in Saudi Arabia is going to be explored and discussed during this study; although academics had both internal and external motivations towards the value of involvement into TEL CPD opportunities, the findings indicated that significant challenges existed to the active participation of TEL programmes, including time and workload, relevant and realistic programme content that address needs, opportunities to practise the use of TEL, and accessibility and awareness. Furthermore, the fundamental conclusion of this paper that should be taken into account is that the vast majority of academics would like to involve and also value the importance of TEL CPD when their inhabiting factors are addressed; so as to impact positively on their academics into TEL CPD, the sufficient role of management support and institutional culture within Saudi organisations of higher education are highly recommended.

Keywords: Continuing Professional Development (CPD), Technology-enhanced Learning (TEL), Involvement, Lecturers.

1. Introduction

The numerous developments and progressions witnessed in a number of different arenas have encouraged various countries across the globe to utilise approaches devised in mind of improving overall professional competence amongst citizens with the objective to facilitate their steady continuation towards dealing with fundamental, emerging issues in the world. One critical element is the educational sector, with the majority of countries recognised as directing their efforts towards designing and implementing innovative and valuable educational programmes aimed to providing learners with the very best opportunities. A number of academics have, in this regard, highlighted that the CPD in the teaching process is fundamental to achieving success and progress in the educational sphere. As an example, Guskey (2002) notes that high-quality CPD is a critical element in almost all modern-day suggestions for educational imperilments. Although the link between teaching and subsequent academic attainment is problematic to determine (Goodall *et al.*, 2005), Alexandrou *et al.*, (2005) nonetheless hold the view that educators who are involved in the provision of high-quality teaching through professional development programmes ultimately facilitate improvements in knowledge and on pedagogical practices, which subsequently affect students in their efforts to achieve success both in the learning and professional fields.

In much the same way as the need for CPD has been seen to increase overall, CPD within the TEL domain is recognised as a critical factor in the support of educational development (Kirkwood & Price, 2011; Littlejohn, 2002), with innovative technologies recognised as adopted by higher education facilities, as in the cases of online discussions and wikis (Morris, 2010); such behaviours motivate stakeholders in education to bring together new ways and methods, and to accordingly incorporate these within pedagogical practice. The ongoing development and success in the technological field means a number of complicated changes are being made to the more traditional methods of teaching; in much the same way, this encourages the same sustained development for academics. In much the same vein as other works that have highlighted and emphasised the value of incorporating TEL within education and CPD with the aim of encouraging both teaching and learning, the study completed by Ming & Azman (2010) provide support for the pursuance of this objective. The academics noted that one of the key barriers facing integration is the reluctance to implement change, which all too often is attributable to TEL skills deficiencies and their inexperience in its application. Such disinclination is

also seen to have a foundation comprising preconceived views pertaining to TEL tools, and the teaching and learning of such. Nonetheless, scholars and professionals who have been involved in and attend CPD in TEL are more inclined to develop more in-depth insight into TEL and to make use of the relevant tools when teaching. In this regard, TEL CPD is recognised as a valuable and effective approach to achieving success in TEL application in pedagogy and the curriculum overall (Galanouli *et al.*, 2004; Daly *et al.*, 2009; Hramiak & Boulton, 2013). Accordingly, unless there is the provision of TEL CPD initiatives, such disinclination will be ongoing, with eradication or mere minimisation seen to be problematic, meaning the successful adoption of educational technologies in the learning and teaching field will not secure the desired outcomes.

In what is widely recognised as a time dominated by technology development and universality, and in consideration to the ever-mounting importance assigned to the requirement for TEL integration in the educational domain, higher education institutions in Saudi Arabia are facing increasing pressure both to present and apply supporting technological learning measures. In this vein, the point is posited by Alhamid *et al.*, (2007) that technological developments will continue to push and force forward the need for different educational methods and skills a circumstance which ultimately will mean CPD stakeholders and providers come to feel the pressure to deliver and prepare lectures with programmes devised with the aim of facilitating high-level performance in dynamic educational settings. Nonetheless, despite the fact that many different research literature carried out in the schooling and educational field in specific regards effectiveness have clearly established a link between high-quality academics in integrating TEL and efficient and valuable professional development amongst academics, it remains that, in the higher educational arena in Saudi Arabia, TEL professional development is lacking. Regardless, however, as has been highlighted by Al mulhem (2013) and Al ghamdi (2015), in Saudi higher education, TEL CPD is viewed as providing a potentially critical solution in the need to satisfy and overcome complicated technological challenges and accordingly provide the educational system with numerous advantages, including positive results. In this way, academics' viewpoints in regards the factors affecting their own active involvement, and how these should be managed and considered through policy, seem to be lacking in works focused on examination and analyses. Accordingly, there is a need for this to be done in order for the TEL field to achieve development and accordingly arrive at the successful integration of technology within the university classroom setting. With this noted, the study has sought to satisfy the following objectives:

1. To examine the perceived factors driving and enabling the involvement of academics in TEL CPD.
2. To determine the perceived factors restricting or otherwise limiting the involvement of academics in TEL CPD.

2. Factors affecting towards TEL CPD

The perceptions of academics in regards the perceived benefits to be garnered through the use of technology, and the overall compatibility of technology in line with more traditional practices and methods, in addition to the perceived value, all have a bearing on the implementation of TEL in the teaching environment, as well as its ongoing development. Furthermore, a belief in the lack of benefits, when present with the lack of interest to adhere to change and adopt newer, more innovative methods, is recognised as hindering academics' willingness to bring together education and technology (Birch & Burnett, 2009). Otherwise stated, changes in practices, as incorporated within pedagogy and teaching, can be linked to the views of academics in regards the change itself, with positive orientation or perspectives linked to a greater willingness to learn and utilise technology when teaching. In line with this, it is therefore imperative that the perceptions and beliefs of teachers in regards TEL are established and taken into account in an effort to achieve successful TEL professional development and the necessary technological change. Furthermore, as has been recognised by Osika *et al.* (2009), these pedagogical beliefs, as held by academics in regards technology, are commonly formed early on in their careers, with a longer duration in this regard seen to more keenly affect their belief in technology. Accordingly, efforts should be directed towards academics' need to experiment with a rich learning environment in order to establish the potential to interact with TEL and all it has to offer.

The beliefs, viewpoints and internal factors of faculty all have an impact on how technology is incorporated within their teaching; nonetheless, when striving for success in development and application, scholars continue to emphasise the different problems in this arena, including access to resources and infrastructure, institutional support, and time and workload, amongst others. One of the most widely held views centres on the involvement of faculty development, the lack of time and the overbearing workload. The time required by academics is recognised as a specific barrier facing development and success in technology skills, use and maintenance across the courseware (Georgina & Hosford, 2009; Tabata & Johnsrud, 2008). In this regard, technology initiatives and their instructional design would affect, both positively and negatively, the views of subjects. In this regard, the point is made by Afshari *et al.*, (2009) that TEL programmes and their quality plays a critical role in how what is learnt is adopted. It has also been stated by the authors that subjects showing willingness and a drive to be involved with TEL activities similarly demonstrate a keen involvement towards their professional development, which is centred on the suitable experience of technology development

and accordingly results in improved understanding and insight into objectives. When there is the lack of an appropriate course to facilitate subjects to garner the necessary skills and insight, innovation and the value of such would be perceived to deteriorate (Tabata & Johnsrud, 2008). Moreover, when such a specialised and tailored activity is lacking in the need to develop TEL formats, faculty members experiencing problems with new technology, as well as those who are slow learners, pose notable challenges to be overcome; this is recognised as a critical factor when seeking to achieve ongoing development (Birch & Burnett, 2009). When academics come to experience a similar level of technological development, ongoing development will be followed in mind of achieving the improvement and creation required in such activities.

As a further point, there is a pressing need to ensure adequate software and hardware resources are made available to academics and are accessible, which is a fundamental consideration in TEL diffusion. When there is a recognised need for technology implementation in learning and teaching, there is a need for educational establishments to similarly provide the necessary support, notably through valuable resources, and to ensure the provision and accessibility of such for both teaching and learning (Tabata & Johnsrud, 2008; Cheawjindakarn *et al.*, 2012). In this vein, the statement is made that, in the academic environment, the atmosphere communicates the TEL value and the type of development necessary and therefore needing to be encouraged. Furthermore, in line with the integration and development of TEL, institutional support for academics including access to and awareness in different opportunities, promotion and funding, is also further recognised as a fundamental element inherent in academic involvement. In this vein, Osika *et al.* (2009) adopt the view that the institution as a whole needs to be supported if TEL CPD is to be a success, with the most commonly involved and successful of entities seen to be those that incorporate TEL support when devising and pursuing their long-term strategies. Furthermore, upon the proposal of any organisation to make developments in line with accommodating targeted individuals, Guesky (2002) pinpoints the view that culture and context need to be identified as a priority and thus taken into consideration. Accordingly, when lacking in the capacity to value principles or to take practical steps towards ensuring any suggested approaches are consistent and well aligned, the full satisfaction of the objectives and the involvement of the targeted subjects will not be achievable.

3. Research Design

3.1 Research approach

A qualitative approach was adopted in this study regarding data of academics' perceptions and experiences; moreover, in consistent with the interpretive approach used in this study, semi-structured interviews were used as an appropriate method to gather data that permit participants to express their perceptions, experiences and views (Hitchcock & Hughes, 2005), as well as to provide the flexibility in which allowing the attainment of more inclusive data information. Likewise, promotion of the researcher adding temporary questions imposed by the reality of the interview with the flexibility to change the order and wording of the questions based on the nature of the interview has occurred during the utilisation of semi-structured interviews (Merriam, 2009). This current study, thus, has concluded that semi-structured interviews should be highly recommended (Drever, 1995).

Aiming to present academics' views and opinions of encouraging factors to engage in TEL CPD (as well as barriers to participating in these activities), the semi-structured interviews comprised of a series of various questions addressing the research objectives based on a review of the literature, each interview lasting from 23 to 40 minutes.

3.2 Participants

The research sample of this study centres on academics who are working on the College of Education at QU; it is deemed vital to interview academic staff as the target goal, as the aim of this study is to realise the academics' involvement perceptions of encouragements and challenges towards the TEL CPD they face. 12 academics, eight males and four females, endured the semi-structured interviews; nine interviewees had a PhD qualification, four had a Master's degree, and participants had between four and 18 years of experience in teaching.

3.3 Procedures and Analysis

Known as a 'thematic analysis', the analysis of the data in this study was followed for its capacity and flexibility for more involvement and interpretation in searching a cross a data set by the researcher (Braun & Clarke, 2006); as such, the current study for analysing the data followed the defined six steps by Braun & Clarke (2006), as follows: transcribing data and creating initial ideas; generating initial codes; gathering codes into probable themes; revising and checking these themes; a generation of specific names for each theme, managing last analyses of selected extracts, and linking them to the research aims and questions.

4. Presentation of Findings

The responses received during the conducted interviews were classified considering the research questions' themes, listed as follows: motivations (sub-categories were: intrinsic, extrinsic, or both); and challenges (sub-

categories were: time and workload; access to TEL resources; quality of TEL courses; accessibility; and awareness). A summary of academics' answers presented with some quotes are illustrated within each theme.

4.1 Motivations

Indicating such professional developments in technologies are vital to gain TEL demand in education and improvements and proficiency in personal, job, and the setting of teaching and learning, the majority of interviewed academics stated their positive perceptions in terms of involvement in TEL programmes; the academics' results into this theme found to be under two sub-themes, including intrinsic and extrinsic factors. These are explained in further depth below.

4.1.1 Intrinsic Factors

Keeping up-to-date in TEL field, the subject of TEL, sustaining professional standards, meeting the needs of learners were described for such engagements; the majority of academics repeatedly emphasise the effects of dramatic technology advancements and changes; for instance, four academics (N2, N3, N6 and N9) regarded the necessity of such engagement in TEL, continuing developments due to the nature of advancements in this field, as N3 stated that, *"technology innovations are changeable day by day and this demands us to keep abreast of such changes to ideally deal with"*; additionally, their responses dealt with the appreciation of TEL programmes as only the way for developing the skills and knowledge; for instance, N11 indicated that, *"CPD in TEL only the way that would certainly contribute in progression of my TEL area"*. Creating a successful learning environment appeared to be one of these motivators for most interviewees for the reason that academics in Saudi higher education are not imposed to adopt educational technologies in their pedagogies. As an example, N3 explained that, *"for the learners' benefit and successful learning experiences, pursuing TEL CPD activities is essential to guarantee and attain these benefits"*.

4.1.2 Extrinsic Factors

A qualified and capable person of dealing with modern technologies, particularly in front of their students, stated to be a promoter that academics' career position and how other people's perception are two examples of some external factors that enhance academics to engage in TEL CPD; N8, for instance, expressed this by saying, *"I am a lecturer in a university, in which the majority of students and also people think that I should be well qualified in all or most educational aspects"*. Moreover, when the content and goals of provided TEL opportunities were seen as clear, related and relevant to needs, academics indicated that they were more likely to involve. N4 mentioned that, *"when I found a training programme that addresses my personal evaluated needs, I would attend it"*; on the contrary, the institution benefit to practice such a global feature, also noted by N9, is that, *"without academics' participation in TEL CPD and effective integration, our organisation would really suffer from being globally underestimated"*. In fact, some academics expressed their mixed viewpoints between intrinsic and extrinsic motivations so as to involve with TEL CPD. Because they value the importance of educational technologies in the academic educational practices, it can generally be said from the academics' responses that academics were motivated between internal and external factors to participate in TEL CPD.

4.2 Challenges

Various concerns were stated, which affected negatively their active TEL learning involvements, despite the fact of positive opinions regarding academics' engagements in TEL CPD for various reasons; these sub-themes are as follows.

4.2.1 Time and Workload

Time and workload have been identified by academics as a significant inhibition in preventing them from engagement in TEL CPD courses. Describing the difficulty in participating in such learning opportunities due to the needed time for developing new technological aspects (and the spare time and heavy workload of their multiple duties, such as meetings and supervisions besides teaching modules), the majority of the participants complained about these barriers. One of these academics (N3) explained this feeling by stating, *"there are many responsibilities to be archived in the view of institutions' heads and participation in TEL programmes are not one of them. My time is consumed into various tasks, and they would eat all the time up"*; in a similar vein, N10 recorded that the nature of personal commitments, such as the family, would make the time more difficult for us to be immersed in these developments: *"the time is the key barrier to me; I believe I need such developments but really difficult for fitting things into my day commitments and family, how about get participated in TEL CPD when you have such things"*.

4.2.2 Access to TEL Resources

Without available TEL resources and equipment in classrooms and academic environments, the opportunity of academics' engagements to learn, develop and adopt TEL is rare; it has been stated by a range of academics (N10, N7 and N12) that access to TEL tools and applications would be vital in order to obtain TEL developments, as they stated that, when such modern resources and support are provided, they would be enhanced to know how they effectively are applied. N10 claimed that, *"if academics are immersed by TEL*

resources and new equipment faculty atmosphere and in classrooms, automatically they found themselves to be forced to develop and know how to use them". This implication underlines the fact that providing TEL resources and support in academics' teaching environments may have to be a crucial trait for their TEL improvement.

4.2.3 Quality of TEL Courses

It is of the opinion of academics that irrelevant, unrelated content and poor experience of TEL courses was another working factor to affect the active engagement; a hesitation to participate in new TEL activities would arise to avoid prior negative experience, their main point being that following the new learning technology environments and continuing to do so grows out of attending good courses that meet their expectations and encourage them to attend new courses in the future; on the same note, academics' core point was that following the new TEL developments and learning programmes and ongoing to do so begins with experiencing a good quality of courses that address intended expectations in a way in will impact them positively to join further technological activities in the future. In this regard, N8 considered that, *"honestly always my whole concern about available TEL courses is that this course would not provide what is supposed to give me and I expect, and the course name does not reflect the course objectives"*. Because of the concern of finding other poor-quality programmes, this crucial challenge may threaten the sustainability of participation in TEL developments.

4.2.4 Accessibility and Awareness

As well as awareness to receive information regarding these courses, accessibility to provided TEL CPD refers to the ability of participating in provided opportunities. Female academics expressed the difficulty in involving with some TEL programmes as the Saudi cultural traditions do not allow women to drive; notably, three female participants indicated that some advanced TEL courses that were available were a distance from their locations, and found difficulty to travel and engage with them. N8 stated that, *"I missed many courses that I wished to participate but the attendance requires traveling in which I cannot"*. Thus, it can be said that academic females were more likely than males to miss the chance to engage in TEL CPD; moreover, inactive channel information providing what activities are coming and available were considered as barrier for academic engagement in CPD. A systematic method for ensuring wider advance publicity about TEL programmes is demanded by some academics to promote their active involvement. N12 observed that, *"I missed many courses due to the lack of information about such courses in advance; an effective way to inform academics would ensure more participation"*.

5. Discussion and Conclusion

The data show that the factors underpinning academics' decision to adopt TEL professional development are wide-ranging and in line with their experiences and views pertaining to educational technologies. In line with the study results, both extrinsic and intrinsic motivations are provided by subjects by way of rationalising their involvement with TEL CPD. Outlined contributions include interest, staying up-to-date and well-informed in the skills and knowledge of TEL, teaching and job satisfaction, career promotion and progression, and improvements in the quality of education and learner attainment. Such opportunities were recognised as enhancing the most important and fruitful knowledge and skills associated with TEL needs in the modern-day world, as well as their own professionalism. Accordingly, there is a need for academics to acknowledge and ensure insight into the value associated with ongoing professional development in the educational technological domain, with its role and value recognised in terms of improving TEL acquisition for both educational and personal purposes. Moreover, the study results suggest that the drivers towards involvement in TEL initiatives may be associated with the personal goals and objectives of subjects. Otherwise stated, owing to the voluntary nature of TEL CPD involvement in the Saudi higher education, inclination and enthusiasm are critical factors in self-development in TEL. This finding, emphasising that academics are focused on learning new things that may be considered valuable in relation to their present or future needs, is acknowledged in the work of Knowles (Knowles *et al.*, 2015; Knowles, 1984), who highlighted the finding that adult learners have a greater tendency to acknowledge and identify the need for ongoing educational improvement as a result of social roles, and are more likely to be driven by internal factors as opposed to external ones.

Throughout the course of this work, the findings have been aligned with other works carried out in relation to the motivational factors of academics in attending TEL CPD. As an example, the works of Georgina & Hosford (2009) and Tabata & Johnsrud (2008) suggest that the beliefs and interests of academics in regards the value and need for TEL are ever-pressing, not only for academics' involvement in ongoing development but also in line with the need to foster positive technological applications in the educational process. Moreover, ensuring skills and knowledge are well-informed and up-to-date, there is a recognised need for the involvement of lecturers in TEL courses. This has similarly been determined in other research, such as those completed by Osika *et al.* (2009); Daly *et al.* (2009); Dash *et al.*, (2012); Waycott *et al.*, (2010) and Jones *et al.*, (2010). The findings highlighted throughout the present investigation shows that academics are aware enough to recognise the need to get involved in TEL professional development, and further acknowledge that educational technology is important and relevant in education.

Bringing together the responses of the academics in line with the aforementioned issues, as discussed in the Findings, it can be seen that there is much variation in the reasons, motivations and interests underpinning involvement in TEL initiatives. Despite the fact that self-directed development is regarded as a more feasible and efficient approach than that influenced and directed by others (Minott, 2010), it remains that extrinsic motivation by organisations and policy makers, and systematic regulations laying emphasis on TEL CPD involvement, are more commonly viewed as the more pressing of requirements in the Saudi Higher Education. When taking into consideration the fact that salary benefits and rewards stemming from participation are non-existent, and also the fact that educational establishments encourage technology development but ultimately to not require adoption, there is then the indication that the participation of academics is self-activated.

Nonetheless, regardless of the fact that most of the academics communicated keen goals towards learning new technologies, the findings do highlight a number of issues affecting the choice of academics to involve in TEL professional development, with these issues posing obstacles. All the subjects recognised some degree of limitation that subsequently affected their overall inclination or their ultimate involvement in the TEL activity, whether this be time, workload, TEL programme quality, resource availability, accessibility, or overall awareness. Such issues may be recognised as playing a role in a lack of involvement. Accordingly, there is a need to achieve balance between professional development and the views held in regards to problems and how these may be tackled. A further essential element to be taken into account in regards personal development openness amongst academics is the need for adult learners to be supported in the learning environment (McQuiggan, 2007; Knowles *et al.*, 2015). Notably, these findings are seen to be aligned with those garnered in the completion of other works (Badge *et al.*, 2005; Becta, 2008; Birch & Burnett, 2009; Georgina & Hosford, 2009; Tabata & Johnsrud, 2008), all of which established workload and time as the most pressing of issues limiting the overall wiliness of academics to enrol in educational technologies learning. This issue related not only to participation but also to its use and the sharing of experiences.

Despite the fact that the subjects recognised the significant efforts directed by both the Ministry of Education and the government in investing notable funds into technological resources for working and learning settings, it remains that some institutions are lacking in practical distribution and adoption. The work completed by Chitanana *et al.*, (2008) similarly agrees with this perspective, with the academics establishing that the choice of lecturers to become involved was enhanced or otherwise limited by their access to the appropriate setting and technological tools. Furthermore, in a similar vein, other works have determined that the overall awareness of academics in regards technological development and integration methods was directed affected by their institutional support and management, with their viewpoints and involvement in TEL CPD initiatives affected owing to the recognised need for their involvement in order to be a part of technological policy and vision. Importantly, this acted as a motivational driver (Keengwe *et al.*, 2009; Osika *et al.*, 2009). When taking this finding into account, it becomes apparent that such TEL professional development engagement barriers stem from policy decisions and a lack of management support. Such issues can cause the ultimate exploitation of TEL opportunities to be undermined, which subsequently affects the motivation of the lecturer to be involved in such developments, especially when taking into account the most suitable organisational culture and support; therefore, there is a need for a positive organisational cultural model that considers and manages such issues, in such a way that lecturers may be encouraged to get involved, to be designed. This would facilitate administrators, academics and policy makers in applying valuable and focused structures for TEL development and incorporation. Furthermore, there is also a need for adequate understanding of such a framework, in line with the duties and principles involved; this then could provide academics with support in acknowledging possible issues and in applying developments in their particular environment (Eraut, 2009).

References

- Afshari, M., Bakar, K. A., Luan, W. S., Samah, B. A., & Fooi, F. S. (2009). Factors affecting teachers' use of information and communication technology. *International Journal of Instruction*, 2(1), 77–104.
- Al mulhem, A. (2013). *DEVELOPING AN E-LEARNING TRAINING PACKAGE FOR ACADEMIC STAFF IN ONE UNIVERSITY IN SAUDI ARABIA*. University of Plymouth.
- Alexandrou, A., Field, K., & Mitchell, H. (2005). *The continuing professional development of educators : Emerging european issues*. Didcot: Symposium Books.
- Alhamid, M., Zeyada, M., Alotaibi, B., & Motwalli, N. (2007). *Education in The Kingdom of Saudi Arabia* (4th ed). Riyadh: Maktabat al-Rushd.
- Badge, J. L., Cann, A. J., & Scott, J. (2005). e-Learning versus e-Teaching : Seeing the Pedagogic Wood for the Technological Trees. *Bioscience Education*.
- Becta. (2008). Review of the Research Literature on Barriers to the Uptake of ICT by Teachers. Becta, Coventry. Retrieved July 18, 2014, from <http://www.elearningcentre.co.uk>
- Birch, D. and Burnett, B. (2009). Bringing academics on board: Encouraging institution widediffusion of e-learning environments. *Australasian Journal of Educational Technology*, 25(1), 117–134.

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(May 2015), 77–101.
- Cheawjindakarn, B., Suwannathachote, P., & Theeraroungchaisri, A. (2012). Critical Success Factors for Online Distance Learning in Higher Education: A Review of the Literature. *Creative Education*, 3(8), 61–66.
- Chitanana, L., Makaza, D., & Madzima, K. (2008). The current state of e-learning at universities in Zimbabwe: Opportunities and challenges. *International Journal of Education and Development Using Information and Communication Technology*, 4(2), 5–15.
- Daly, C. Pachler, N. Pelletier, L. (2009). *Continuing Professional Development in ICT for teachers: A literature review*.
- Dash, S., Magidin De Kramer, R., O'Dwyer, L., Masters, J., & Russell, M. (2012). Impact of Online Professional Development on Teacher Quality and Student Achievement in Fifth Grade Mathematics. *Journal of Research on Technology in Education*, 45(1), 1–26.
- Drever, E. (1995). *Using Semi-Structured Interviews in Small-Scale Research. A Teacher's Guide*. Scottish Council for Research in Education, Edinburgh.
- Eraut, M. (2009). *2.1 Transfer of knowledge between education and workplace settings. Knowledge, values and educational policy: A critical perspective*, 65.
- Galanouli, D., Murphy, C., & Gardner, J. (2004). Teachers' perceptions of the effectiveness of ICT-competence training. In *Computers and Education*, 43, (63–79).
- Georgina, D. A., & Hosford, C. C. (2009). Higher education faculty perceptions on technology integration and training. *Teaching and Teacher Education*, 25(5), 690–696.
- Ghamdi, K. M. AL. (2015). *Can an ICT CPD programme have an impact on EFL teachers in Saudi Arabia: A case study*. University of Warwick.
- Goodall, J., Goodall, J., Day, C., Day, C., Lindsay, G., Lindsay, G., Harris, A. (2005). *Evaluating the Impact of Continuing Professional Development (CPD)*. Department for Education and Skills, G.B.
- Guskey, T. (2002). Professional Development and Teacher Change. *Teachers and Teaching*, 8(3), 381–391.
- Hitchcock, G., & Hughes, D. (2005). *Research and the Teacher A Qualitative Introduction to School based Research* (2nd editio). London and New York: Routledge.
- Hramiak, A., & Boulton, H. (2013). Escalating the use of Web 2.0 technology in secondary schools in the United Kingdom: Barriers and enables beyond teacher training. *Electronic Journal of E-Learning*, 11(2), 91–100.
- Jones, C., Ramanau, R., Cross, S., & Healing, G. (2010). Net generation or Digital Natives: Is there a distinct new generation entering university? *Computers and Education*, 54(3), 722–732.
- Keengwe, J., Kidd, T., & Kyei-Blankson, L. (2009). Faculty and technology: Implications for faculty training and technology leadership. *Journal of Science Education and Technology*, 18(1), 23–28.
- Kirkwood, A. and Price, L. (2011). *Enhancing learning and teaching through technology: a guide to evidence-based practice for academic developers*, Higher Education Academy.
- Knowles, M., Holton, E., & Swanson, R. (2015). *The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development* (8th Ed). Routledge London and New York.
- Knowles, M. (1984). *The Adult Learner: A Neglected Species* (3rd Ed). Houston, TX: Gulf Publishing.
- Littlejohn, A. H. (2002). Improving continuing professional development in the use of ICT. *Journal of Computer Assisted Learning*, 18(2), 166–174.
- McQuiggan, C. A. (2007). The role of faculty development in online teaching's potential to question teaching beliefs and assumptions. *Online Journal of Distance Learning Administration*, 10(3).
- Merriam, S. B. (2009). *Qualitative Research: A Guide to Design and Implementation. The JosseyBass Higher and Adult Education Series*, 2nd, 304.
- Ming, T., Hall, C. and Azman, H., and J. (2010). Supporting Smart School Teachers' Continuing Professional Development in and through ICT: A model for change, 6(2), 5–20.
- Minott, M. A. (2010). Reflective teaching as self-directed professional development: building practical or work-related knowledge. *Professional Development in Education*, 36(1–2), 325–338.
- Morris, D. (2010). Are teachers technophobes? Investigating professional competency in the use of ICT to support teaching and learning. In *Procedia - Social and Behavioral Sciences*. 2, (4010–4015).
- Osika, E., Johnson, R., & Butea, R. (2009). Factors influencing faculty use of technology in online instruction: A case study. *Online Journal of Distance Learning*, 12(2009).
- Tabata, L. N., & Johnsrud, L. K. (2008). The impact of faculty attitudes toward technology, distance education, and innovation. *Research in Higher Education*, 49(7), 625–646.
- Waycott, J., Bennett, S., Kennedy, G., Dalgarno, B., & Gray, K. (2010). Digital divides? Student and staff perceptions of information and communication technologies. *Computers and Education*, 54(4), 1202–1211.