# Pedagogy for Training Teachers Professional Expansion in English Language Teaching

Karabasappa Channappa Nandihally Assistant Professor Of English Government First Grade College, U.G.&P.G.Centre Dental College Road, Vidyanagar, Davanagere.

#### **Abstract**

English could be reframed as 'a universal basic skill' and it is increasingly taught from or before the age of 5 together with literacy and numeracy It is also 'the most commonly taught foreign language all over the world' with a 'special status' as a border-crossing channel for trans-cultural communication New technologies and communications "are enabling immense and complex flows of people, signs, sounds and images across multiple borders in multiple directions" In this chapter we attempt to harness the 'strong driving force' of this impetus for language learning by providing some insights, guidelines and resources to support the design of effective mobile teaching and learning.

Our primary focus in this chapter is the provision of reflective guidance for a mobile and technology supported pedagogy for English language teacher development. However, it is likely that the resources and reflections throughout will be of relevance to teachers of other languages, their educators and more broadly to those working with teachers from a wider variety of subjects interested in mobile learning. Teachers from all sectors are encouraged to develop confidence in their evolving pedagogic and digital practices via the application of 21st Century skills and by becoming familiar with continuing professional development frameworks where design of learning is linked to task and technology. We aim to help those involved in discussions around teaching practices for effective learning with the principled use of mobile devices, and to that end we include examples of good practice and reflections from a variety.

**Key Words**: Pedagogic Possibilities, Mobile Pedagogy, Collaboration adoptive.

### Introduction

Extensive research and published literature in the field of Mobile Assisted Language learning and more recently Mobile Assisted Language Use is yet to be fully incorporated into initial training programmers, curricula and professional development frameworks. Baran's review of research on mobile learning in teacher education, based on a synthesis of 37 articles, found "an increasing interest in the integration of mobile technologies into teacher education contexts It is not known how many of these contexts were related to language teaching. Although an increased interest is a positive indication, there is also the issue of how mobile technologies are integrated into teacher education or into learning activities inside and outside of class. Crompton, Burke and Gregory's (2017)

systematic review of the use of mobile learning in education revealed that 40% of reported mobile learning activities took a behaviorist approach to learning classroom response systems, drill and feedback) which the researchers suggest represents the integration of mobile devices "into existing 20th century teaching and learning practices rather than moving to 21st century learning and it is not helping the learners to become "producers, collaborators, researchers and creators of knowledge.

Language teaching is one subject area where this vision could be realized. The pedagogic possibilities implied in a mobile pedagogy for language teaching are rich, for example allowing multimodal communication to be rehearsed and recorded for subsequent analysis, reflection, assessment, correction, and connection with a global network of what might be called 'expert others' (e.g. native speakers, more advanced learners of the target language). Learners' positive attitudes towards mobile constructivist language learning has been noted by Hsu (2013). Other researchers, including Pegrum (2014), have highlighted the development of multiple literacy's through the use of mobile devices. This potential for developing contemporary 21st century literacy's and pedagogic practices will be missed, however, if teachers, their educators and institutions do not address the constraints involved. These include the darker side of hosting connected digital technologies in schools, with legitimate concerns and a responsibility for protecting the safety, privacy, data and reputations of all those within the community. Other constraints include potential learner confusion or overload caused by the use of mobile applications across several languages and other subjects taught in a school.

By sharing our experiences of designing and implementing language teacher Continuing Professional Development we hope to advance and promote the design of communicative, connected, task-based. The chapter begins by reviewing how design for teaching and learning with technology figures in existing frameworks for language teacher Continuing Professional Development We report on the outcomes of our Mobile Pedagogy for English Language Teaching project, and draw upon this chapter's first author's experience of incorporating the resulting framework into language teacher. The challenges involved in this process inform our subsequent reflections on pedagogical development work with European teachers. These sections culminate in some examples of adaptable tasks for collaborative, collegiate action research and planning, and guidelines for and training. We conclude by suggesting areas and directions for future work and further consideration.

## **Techniques**

To provide some context for the adoption of, we carried out a review to establish the role technology plays in the syllabi of internationally recognized qualifications for teaching English and frameworks for To this end, we analyzed the syllabi of initial training qualifications for those who will be teaching English to adults and in-service and advanced qualifications for more experienced English Language teachers, and Professional Development frameworks aimed at English language teachers. Whilst this was not an exhaustive review, the analysis showed a lack of attention to in well-known language teacher programmers, and also the ways in which this is starting to be addressed in more recent frameworks and online resources.

One proposed pedagogical framework that can be used as part of Professional Development is based on an emerging mobile pedagogy for English language teaching, and it can guide mobile language teaching and learning and support appropriate task designs). This framework was informed by an investigation into the ways in which was being incorporated into current language learning and teaching practices, both formal and informal. The investigation was carried out by the authors and another researcher at The Open University, as part of a British Council research partnership award in 2014-15 which supported the Mobile Pedagogy for English Language Teaching ELT research project. It included interviews with teachers and learners in the international students and migrants on employment related language courses to discover their existing practices. The project resulted in pedagogical guidance in relation to adult learners' use of mobile devices for learning English in different environments, with an emphasis on learning beyond the classroom. The guidance was reviewed by a team of international experts to ensure it was also relevant to a variety of settings.

To complement these research actions, we also draw on the first author's experience of running professional development sessions and workshops for language teachers' CPD since 2010, and particularly recently within Erasmus the European Union programmers for education, training, youth and sport as well as. In the time of 2016 and 2017 this included sessions or workshops for 40 separate courses consisting of 2-5 days, within longer 1 or 2 week courses for European Union teachers. Each course had 8-30 participants. Several practical task examples and reflection activities that were used in these workshops and training sessions are included in this chapter.

## Intend For Learning and Teaching With Technology Frameworks

It is evident from the integral role that technology plays in teaching aspects of language knowledge and skills that the conception of those knowledge and skills needs to be updated to include the technology-mediated contexts in which language learners communicate and learn. In this section, I provide a brief impression of the role technology plays in the syllabi of some internationally recognized qualifications for teaching English and frameworks for CPD. preliminary training qualifications from providers Trinity and Cambridge English Language Assessment the Certificate in Teaching English to Adults and the Certificate in Teaching English to speaker of Other Languages, respectively do not currently include specific reference to mobile language learning, or associated design of tricks. Technology is referred to as relating to planning and teaching skills "including computer & other technology based resources" Cambridge English, the use of "teaching aids board, projector, audio-visual equipment, online materials and ICT interactive white board if available 2016, The Cambridge In-Service Certificate in English Language Teaching refers to "appropriate technical aids and media" Cambridge English, 2015

In Diploma level curriculum specifications (for more experienced teachers), the terms mobile and digital, and reference to tasks are also noticeably absent. The Trinity Diploma syllabus refers to "audio-visual, computer-assisted language learning and information and communication technology Trinity, 2007 The Cambridge Diploma syllabus refers to including electronic resources" and recognizes its "impact and potential for language learning by requiring candidates to adapt, develop and create teaching/learning materials/resources, including ICT, for specified teaching and learning contexts. 'Technology' in this English language teacher education, it would seem,

currently only figures in relation to teacher 'preparation' of materials and resources, and critically, no reference to task design is made. In "Designer Learning: The Teacher as Designer of Mobile-based Classroom Learning Experiences" (2013), Hockly draws on Laurillard's work (2012) outlining the need for teachers to design effective learning experiences with or without technology. The paradox this conjures (what is mobile in a pre-determined, fixed teaching space?) will be elaborated on in the next section.

Does the place and role of technology play differently in Professional Development frameworks aimed at English language teachers? A number of these exist to give teachers, their managers and their employing institutions a means of mapping skills and competences for "a shared understanding of the key skills, knowledge and behaviors that have been shown to contribute to effective teaching at a variety of levels and in diverse contexts" (British Council, Cambridge English A joint statement by the authors of the Cambridge English Teaching Framework, the British Council CPD framework, the European Profiling Grid and The framework outline their common principles, purpose and use. In the first of these, Cambridge English Teaching Framework, spanning four developmental phases from foundation to expert, technology is described in terms of teaching aids and use of online resources where the term 'mobile' appears once, in relation to a device:

The European Profiling Grid describes language teacher competences over six phases of development, in nine languages, and similarly includes a single reference to 'mobile'. This appears in relation to the most experienced language teacher competence: can train students to use any available classroom digital equipment their mobiles, tablets etc. profitably for language learning The term 'technology' is absent altogether, while the terms 'digital skills' and 'digital media' are frequently used and appear as one of the overarching 'enabling competences' together with language awareness and intercultural competence.

This is mirrored in the framework (2016), where using digital media is one of the five key teacher skills and knowledge focus areas. There is reference to 'standard' technology for teachers starting out, and specific reference to 'the various uses of mobile learning devices and applications for language learning' in their most advanced phase. Skills in relation to the design, planning, selecting, adapting and evaluating of 'activities, resources and materials' are described. Unusually, learning beyond the classroom is valued in another key area, 'resources and materials': "adapting and using creatively to aid learning in *and outside* the classroom in 2016, The British Council's 2015 CPD framework includes 'integrating ICT' as one of the twelve professional practices, with reference to digital content. The accompanying website uses the same terminology, e.g Setting up activities that support learning by exploiting appropriate digital content, tools and platforms and provides a rich variety of multimedia resources to download or stream; teaching tips, research reports, books, guides, lesson packs and webinars.

Likewise, the Cambridge English Digital Framework website hosts a suite of online resources, including tests designed to assess digital skills levels across the six categories of the framework; the Digital World, the Digital Classroom, the Digital Teacher, Designing Learning, Delivering Learning and Evaluating Learning The Digital

Teacher, 2017. On this Cambridge English Digital Framework website there will be an accompanying multimedia set of training and resources developed with teacher feedback identifying what would best help them (in development at the time of writing). The current resources include tips on innovative language teaching practices such as using automated speech recognition in collaborative writing and research tasks. The Cambridge English Digital Framework moves beyond descriptions of teacher competences, and is significantly different in areas of focus, as it is centered entirely on teaching and learning practices involving technology.

## **Pedagogy for English Language Teaching**

The previous section showed some of the gaps in language teacher programmers in relation to technology, and the ways in which this is starting to be addressed in more recent CPD frameworks and online resources. Here, we introduce an emerging mobile pedagogy for English language teaching, and discuss a pedagogical framework to guide mobile language teaching and learning (2015). This was informed by insights into the learning potential of a mobile pedagogy, from an investigation into the ways in which was being incorporated into current language learning and teaching practices, both formal and informal.

Our approach is built on the premise that while mobile learning rightly puts a spotlight on learners and their experiences, it sometimes obscures the important role played by teachers when they structure and support those experiences, and when they prepare and equip learners for more autonomous learning (2014). The motivation behind our work was to illuminate what it means for teachers to implement a mobile pedagogy in the classroom and when designing learning activities that may be carried out beyond the classroom. In a world where traditional boundaries between the classroom and the outside world are gradually dissolving, it is vital to consider the implications for language teachers, the design of 'language lessons' and the teacher-learner relationship. The four pillars of the Pedagogical Framework developed in the project highlight the teacher's role (based on their professional wisdom) in relation to three key mobilities: mobile devices, mobile learners and the mobility that is inherent in all living languages and channels of communication. These four elements may be summarized as follows:

**Teacher Wisdom**: This highlights the teacher's personal role and experience in enacting pedagogy. For example, the teacher knows how to foster and create an atmosphere of trust among learners and understands the psychological barriers that may obstruct their willingness to communicate. The teacher understands that personalized and authentic tasks are often more meaningful for students and more motivating. The teacher also understands that learners may achieve different outcomes. Enacting a means of considering all aspects of pedagogy in relationship with the other three pillars of the framework, namely, device, learner and language.

**Tool Features:** Device features are those that enable multimodal communication, collaboration and language rehearsal, and may be exploited in the course of everyday or professional settings. They are also features that support inquiry and reflection on learning. Learning activity may depend on the ability to connect to the internet

in different locations, ideally seamlessly, but bearing in mind aspects such as availability of Wi-Fi or how much it may cost to download a very large file. The time required to download or access resources is another important consideration.

**Beginner Mobilities:** Mobile learning inside and outside the classroom can help connect real life situations with individual resources and needs, it can encourage active learning and collaboration. Learners may be mobile not only in terms of physical mobility, and so the plural form 'mobilities' is useful here. Learner mobilities can include the many places and times when people learn and reflect on learning, the range of contexts and cultural settings they occupy, and the personal goals that motivate learners to keep on learning beyond the confines of the classroom.

**Communication:** Language is not entirely fixed in its forms and functions; it is vibrant, and this is partly due to the quick evolution of communications technology. New words and expressions emerge and are there to be discovered. A variety of channels and media are available for learning and interpersonal communication, and these may be used to conduct language teaching (e.g. via social media), to observe the target language, and to initiate inquiries about language meanings and language change. The Pedagogical Framework is meant to support teachers as they think through how their learning activity or lesson designs may take account of these four aspects. In this process, teachers are encouraged to consider how their designs relate to opportunities for learners to engage in inquiry, rehearsal, reflection, and the impact on learning outcomes for more details on the framework, examples of lessons, resources and further guidance, see also highlights the role of mobility in differentiating m-learning from other learning in a fixed location that could take place anywhere, describing a 'genuinely mobile' learning experience as one where tasks performed while moving through changing spaces feed into learning, so 'construction of understanding is situated and embodied' (2014, p. 143). In his view, a mobile pedagogy depends on teachers and their learners appreciating such knowledge construction, along with collaborative networking, which might 'require both teacher and learner training in the developing and developed world alike' (2014,)This has in fact proved to be the case in workshops with many teachers who have initially found these and other aspects of a Mobile Pedagogy for baffling and unfamiliar ideas. We go on to share reflections and insights gained from working with teachers undertaking CPD training courses in a European context.

### **Practices and Experiences**

In this section and the next, we draw on the first author's experience of running professional development sessions and workshops for language teachers' CPD, particularly as well as published research and accounts of practice. Erasmus +, the European Union programmers for education, training, youth and sport, states that for a mobility project a school should be aiming to support the professional development of some or all of the school staff, as a part of the school's European Development Plan and provides funding for training conducted in a member country (2017). Only a few use it – and still to a limited extent – to work with students during lessons, and even less frequently to communicate with parents or to adjust the balance of students' work between school and home in

new ways. This appears to be the case for many of the participants on CPD courses reflected on here, but by no means all. Some countries and regions, e.g. Nordic schools, "are ahead of the global curve in the exploration and integration of many emerging technologies.

A collaborative research series exploring the impact of emerging technologies schools cites experts agreeing on two forthcoming trends: 'the changing role of schoolteachers as a result of influence' and the impact of social media platforms Some of the challenges mapped to a framework developed to mainstream innovative pedagogical practices include the integration of ICT in teacher education, blending formal with non-formal learning, and involving students as co-designers of learning (Johnson 2014). Rethinking the role of teachers is an on-going driving, mandatory for career advancement in some states. It is worth teachers at all levels are civil servants employed by the state, not the teaching institution, and teaching is usually seen as a job for life. The resulting ambiguity felt by some teachers about the changing requirements of their role is evident in discussions about the need to re-think teaching and learning. Technology use and related teacher anxiety is a key factor in the CPD training courses discussed in this section. Turning now to teacher voice, guiding reflections on teachers' own learn is crucial in scaffolding the uptake of insights, strategies, and skills developed during the process. Offering such guidance is a steep learning curve for teacher educators, especially in contexts where teachers have never taken part in experiential, collaborative and collegiate learning. This is even more so when the working language of instruction and communication is not shared by those involved. In the context of language training and teaching, perhaps there is a further obstacle, under-reported, but pinpointed by Thornbury in 2001, in making a case for abandoning a 'one-size fits all' course book teaching model; "language is not a subject, it is a medium (2001). When the subject under instruction is the medium in which it is expressed, the decisions about what 'content' is get complicated.

In the European context there appears to be a lack of opportunity to undergo CPD or training with technology in the mother tongue when compared to its relative availability in English as a Medium of Instruction When participants on a course are unfamiliar with the terminology surrounding the technology that is the focus, unaware of the terms/concepts in their mother tongue, and lost in relation to how their own devices work, the learning situation is challenging. In such cases the focus needs to be on the pedagogy, not the technology; furthermore, appropriate technical information and support needs to be available in the mother tongue or other languages as well. Learning activities for mobile devices "are shaped by how students perceive what tools and resources can or cannot do for them" rather than being determined by the tools and available resources themselves (2011) In the context of teacher education, this is doubly true many are unfamiliar with the features of their own mobile devices; The Digital Teacher team at Cambridge English suggest:

Collaborative learning is often something that teachers have not experienced as learners themselves – very many classrooms in Europe are still laid out in rows, with individual desks, or the occasional horse shoe arrangement. In these classrooms, learners face only the teacher, the focal point and 'controller' of information flow, in this 'one to many transmission style of teaching, along with the so-called 'interactive' white boards. In reflections answering

the question 'what did you learn about pedagogy today?' the following quotes show a wide range of reactions to collaborative group exploration of mobile pedagogy in action. Those who are teaching in cultures that do not prize problem solving, inquiry-based group-work, or value the collective sharing of experience in CPD can be lost, and often expect training to take place in a computer laboratory, with lock-step teaching. Figure 4.2 shows some positive and negative reactions to collaborative learning during CPD.

As outlined in the previous section, a mobile pedagogy for ELT applicable to other subject areas)is founded on the belief that while mobile devices can support self-directed learning and language learner autonomy, the role of teachers is equally important. In the same way that placing learners in groups to work collaboratively is challenging, many teachers flounder when faced with the need to direct, and provide guidance to support self-directed and autonomous learning. Purushotma (2005) noted over a decade ago that the guidance given to students learning languages beyond the classroom has changed very little over the past century. Tellingly, perhaps, in the training described in this context, conducted over a 6 year period, participants proved united in their refusal to engage in mobile learning tasks outside CPD sessions, or in preparation for courses. If language teachers on CPD courses taking place in target language countries are themselves unwilling to explore mobile learning practices out of class (essentially viewed as homework, there may be some uncomfortable questions to be answered by those involved in teacher CPD. Ironically, many of the same participants expressed despair at the way their own learners' failed to engage in homework, or flipped learning tasks.

We uncovered evidence during our research and in teacher CPD of how digital tools designed to allow collaborative learner input and discussion are frequently co-opted by teachers and used in a more teacher-centered manner. In one example given by a teacher in the Mobile Pedagogy in ELT project (described earlier), a group or pair class quiz app designed for learners to post answers on their own and each other's mobile phones, was used as a presentation tool. Teacher learning journals and observations in the CPD workshops reveal teachers using their own mobile devices to answer questions after a whole class hands up consensus vote, rather than by pairs discussing and moving through the quiz at their own pace, using their own devices. The challenge of mobile-assisted language learning is not simply to transpose "current teaching and learning materials and practices to a mobile device, but a complete re conceptualization of these" As discussed, addressing this provides many challenges to those unfamiliar with the benefits of inquiry-based, reflective, student-centered learning that may connect learning in and out of classroom spaces.

### Responsibilities and Plan for Teacher Upgrading

School teachers with many years of experience may prove to be reluctant learners and present particular challenges, weary and jaded from constantly changing education reforms and policies. Language teacher professional development, as opposed to initial teacher training, is often thrust upon unwilling teachers, mostly because they are not involved in decisions about the type and nature of training being provided, and they are obligated to attend. A barely supressed, 'rolling eyes' cynicism can rule when teachers with over two decades of successful practice are faced with techno-evangelists with no experience of teaching in *their particular context*. This type of

technology training is like preaching to the unconverted, and often consists of 'takeaways' in the form of practical activities for teachers to replicate, with scant attention to pedagogic processes, or teacher wisdom in the room. When time is not spent reflecting on how and why learning is or is not taking place, and the training is not followed up in a collegiate manner, whole school professional development is not sustainable. It is necessary to be clear about the need for all teachers in a department (and whole school) to participate in meaningful, scaffold conversations, and potentially 'unlearn' or rethink current practice.

Before investing time and money, language teachers and their educators need to consider the impetus motivating Professional Development and associated in-service training actions. It is vital to consider all the factors involved for successful impact on subsequent teaching and learning. This would include a review of skills that might need to be developed and assessed. For example, with regard to so-called 21st Century skills (e.g., meta-cognition, critical thinking, creativity, collaboration, media and computing literacies), Ananiadou & Claro found 'virtually no clear formative or summative assessment policies for these skills' (2009, p. 4), but they described the ways in which developing teacher ICT pedagogical skills aligns to the promotion of the skills involved. Since then, there have been several publications for teaching and assessing in this area (e.g. National Research Council, 2012; Griffin, McGaw, & Care, 2012; Griffin & Care, 2015).

The 'C' in CPD ('Continuing') is a misnomer in many teaching contexts, often left to teacher associations or international or local publishers rather than approached in a systematic way. We propose here a list of questions that need to be addressed (and they should be edited, remixed or elaborated on, depending on local context and circumstances):

# **Teacher Development Programmers**

Two detailed classroom are presented in the Digital Extras that follow this chapter, much of which is transferable to teachers of other subjects, or in contexts where English as a Medium of Instruction or Content and Language Integrated Learning is involved. The suggested approach is "loop-input", i.e. combining the experience of working on tasks as a learner, with subsequent reflection from a teacher perspective. Doing both simultaneously is not advisable. For teachers, working on and in a second language, with unfamiliar digital tools, technologies and pedagogic practices with previously "undiscovered" personal mobile devices, is highly demanding. The potential for cognitive overload is high, without very careful consideration of timing and task. Where possible, it would be beneficial for training to be conducted in the mother tongue, or with the aid of one or more bi-lingual technical experts.

Activities suggested in the Digital Extras sections that follow this chapter focus on pedagogy where English is the language under study, as well as on the supporting or assisting mobile technology. In a plural lingual training context, it is important to allow trans language, "the ability of multilingual speakers to shuttle between languages, treating the diverse languages that form their repertoire as an integrated system, (2011). For many language teachers, working with emerging mobile communication technologies is like operating in an alien language, in

454

rapidly changing uncharted territories. Reflection is best undertaken in the mother tongue, with slow, silent thinking time to make notes, before using all learning repertoires to share with colleagues.

#### **Conclusions**

Our focus in this chapter has been the provision of guidance for teachers to support them in their professional development in a mobile and technology supported pedagogy for which they have not previously been prepared. In our brief review of the role technology plays in the syllabi of internationally recognized qualifications for teaching English, we noted that technology in English language teacher education currently only figures in relation to teacher preparation of materials and resources, without reference to task design. In Professional Development frameworks aimed at English language teachers, there is little or no mention of mobile task designs, and mobile technologies are referred to using the umbrella term 'digital'. This may be a deliberate choice, since the British English term for a 'mobile', which encourages a misconception of caused by the conflation of terms – the device being the thing driving or enabling the learning, as opposed to the facets described in our Mobile Pedagogy framework. This umbrella use of the term 'digital' is exemplified in Digital Language Learning & Teaching, (2017). Yet we would argue that there is still merit in retaining the term "mobile" as a way to draw attention to the multiple motilities involved when using mobile devices in contemporary communication and language learning.

## References

- 1. Li, G., 2012. Culturally contested pedagogy: Battles of literacy and schooling between mainstream teachers and Asian immigrant parents. Suny Press.
- 2. ^ "Definition of PEDAGOGY". www.merriam-webster.com. Retrieved 9 January 2019.
- 3. <u>^ "Blueprint for government schools. Flagship strategy 1: Student Learning. The Principles of Learning and Teaching P-12 Background Paper" (PDF). Department of Education and Training Victoria. Retrieved 12 June 2017.</u>
- 4. <u>^ Shulman, Lee (1987). "Knowledge and Teaching: Foundations of the New Reform" (PDF). Harvard Educational Review. 15 (2): 4–14. Retrieved 12 June 2017.</u>
- 5. \* Freire, P., 2018. Pedagogy of the oppressed. Bloomsbury Publishing USA.
- 6. 
   <u>^</u> Petrie et al. (2009). Pedagogy a holistic, personal approach to work with children and young people, across services.
   <u>p. 4.</u>
- 8. <a href="https://example.com/"> "Definition of "pedagogy" Collins English Dictionary"</a>.
- 9. <u>^ "pedagogy noun definition in British English Dictionary & Thesaurus Cambridge Dictionary Online"</u>.

  Dictionary.cambridge.org. 10 October 2012. Retrieved 29 October 2012.
- 10. <a href="mailto:hearthquade">hard</a>. <a href="mailto:none-en-align: en-align: en
- 11. ^ "Herbartianism | education". Encyclopædia Britannica. Retrieved 2 November 2015.
- 12. ^ "Johann Friedrich Herbart | biography German educator". Encyclopædia Britannica. Retrieved 2 November 2015.
- 13. <u>^ Kenklies</u>, Karsten (12 February 2012). "Educational Theory as Topological Rhetoric: The Concepts of Pedagogy of Johann Friedrich Herbart and Friedrich Schleiermacher". Studies in Philosophy and Education. **31** (3): 265–273. <u>doi:10.1007/s11217-012-9287-6</u>. <u>ISSN 0039-3746</u>.
- 14. ^ Martin, Jane. "What Should We Do with a Hidden Curriculum When We Find One?" The Hidden Curriculum and Moral Education. Ed. Giroux, Henry and David Purpel. Berkeley, California: McCutchan Publishing Corporation, 1983. 122–139.

- 15. ▲ Giroux, Henry and Anthony Penna. "Social Education in the Classroom: The Dynamics of the Hidden Curriculum." The Hidden Curriculum and Moral Education. Ed. Giroux, Henry and David Purpel. Berkeley, California: McCutchan Publishing Corporation, 1983. 100–121.
- Cook, DJ (2010). "Learning Setting-Generalized Activity Models for Smart Spaces". IEEE Intell Syst. 2010 (99):
   doi:10.1109/MIS.2010.112. PMC 3068197. PMID 21461133.
- 17. <u>A Eglossary, definition</u>. Retrieved 2016-04-05
- 18. A Illeris, Knud (2004). The three dimensions of learning. Malabar, Fla: Krieger Pub. Co. ISBN 9781575242583.
- 19. ^ Ormrod, Jeanne (2012). Human learning (6th ed.). Boston: Pearson. ISBN 9780132595186.
- 20. ^ Jump up to: La Kaplan, Andreas M.; Haenlein, Michael (2016). "Higher education and the digital revolution: About MOOCs, SPOCs, social media, and the Cookie Monster". Business Horizons. 59 (4): 441–50. doi:10.1016/j.bushor.2016.03.008.
- 21. <u>^ Honeyman</u>, *M*; *Miller*, *G* (December 1993). <u>"Agriculture distance education: A valid alternative for higher education?" (PDF). Proceedings of the 20th Annual National Agricultural Education Research Meeting: 67–73.</u>
- 22. <u>^</u> Distance Education Accrediting Commission. "CHEA-Recognized Scope of Accreditation." <u>"Archived copy"</u>. Archived from the original on 24 December 2016. Retrieved 4 November 2015. April 2013.
- 23. <u>^</u> Tabor, Sharon W (Spring 2007). <u>Narrowing the Distance: Implementing a Hybrid Learning Model</u>. Quarterly Review of Distance Education. **8**. IAP. pp. 48–49. <u>ISBN 9787774570793</u>. <u>ISSN 1528-3518</u>. Retrieved 23 January 2011.
- 24. <u>^</u> Vaughan, Dr Norman D. (2010). <u>"Blended Learning"</u>. In Cleveland-Innes, MF; Garrison, DR (eds.). An Introduction to Distance Education: Understanding Teaching and Learning in a New Era. Taylor & Francis. p. 165. <u>ISBN 978-0-415-99598-6</u>. Retrieved 23 January 2011.
- 25. ^ Jump up to: Lincheloe, Joe (2008). Critical Pedagogy Primer. New York: Peter Lang. ISBN 9781433101823.
- 26. <u>^ Kincheloe</u>, Joe L.; Horn, Raymond A., eds. (2007). <u>The Praeger Handbook of Education and Psychology</u>. p. 552. <u>ISBN 978-0313331237</u>.
- 27. ^ Jones, Leo. (2007). The Student-Centered Classroom. Cambridge University Press.
- 28. A Rogers, C. R. (1983). Freedom to Learn for the 80's. New York: Charles E. Merrill Publishing Company, A Bell & Howell Company.
- 29. A Pedersen, S., & Liu, M. (2003). Teachers' beliefs about issues in the implementation of a student-centered learning environment. Educational Technology Research and Development, 51(2), 57-76.
- 30. <u>A Hannafin, M. J., & Hannafin, K. M. (2010)</u>. <u>Cognition and student-centered, web-based learning: Issues and implications for research and theory</u>. In Learning and instruction in the digital age (pp. 11-23). Springer US.
- 31. <u>^ Young</u>, Lynne E.; Paterson, Barbara L. (2007). <u>Teaching Nursing: Developing a Student-centered Learning</u> Environment. p. 5. ISBN 978-0781757720.
- 32. ^ Taipei Times Learning from Denmark
- 33. <u>^ "Pædagog"</u> [Pedagogue]. UddannelsesGuiden (in Danish). <u>Ministry of Children and Education</u>. Retrieved 1 September 2019.
- 34. <u>A Educational Guide Denmark Pædagog UddannelsesGuiden.dk.</u>
- 35. <u>^ "Front Page"</u>. The Official Site of The Labor Union of Pedagogues. Labor Union of Pedagogues. Retrieved 27 May 2013.
- <u>\* "Ezekre a tanári szakokra jelentkeztek a legtöbben [English: These Teaching Areas Proved The Most Popular]"</u>. Eduline.
   19 April 2013. Retrieved 27 May 2013.
- 37. ^ "A new pedagogy". Retrieved 8 June 2018.