Linking Technology and Reflective Practice in Primary ELT Teacher Education

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Abstract

This paper presents the qualitative results of a study on the use of technology based dialogic interaction in Primary ELT teacher education. In this research technology was focused on its use to support and act as an elaborative interface in the dialogic interaction between the teacher educators and the teacher learners by (1) providing support for analysis, (2) enhancing social interaction through richer contextualization and (3) favouring the design of new teacher training materials. In this research two teacher educators at the Faculty of Education of Universidad de Alcalá (Madrid, Spain) studied the interactions of their own student teachers in microteaching activities for their own classmates, recorded the teaching-trainee-teaching-trainee and teaching-trainee-teacher interactions, and had a dialogic intervention after watching the recordings. Results indicated that dialogic interaction in the zone of proximal development (ZPD) leads to a general learning improvement along with a better self-image and higher motivation. This is due to a significant reduction of performance anxiety, the development of teaching skills, and capacity to self-observe and reflect on their own performance.

Keywords: ICT; microteaching; TEFL; teacher - student teachers; dialogic interaction.

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1. Introduction

Microteaching has been highly regarded as a very adequate teacher training methodology since its initial application at the University of Standford (McKnight & Baral, 1969). Allen (1967) describes it as "a combined training and diagnostic tool in Stanford's teacher intern program in the summer of 1963" (p. 1). The training method is based on student teachers becoming aware of what is called "educational act" by experiencing their own reality as potential practicing teachers who need to acquire the adequate technical skills to perform their profession (Gage, 1968) by ensuing and observable behaviour (Bartley & Politzer, 1967; LeGros & Faez, 2012) or by "pretended practice". Following García Laborda & García Esteban (2016), this project addresses the most important issues on this practice, especially the formulation of goals for their performance and behaviour, design of lesson content, symbolic modelling such as written and verbal rubrics, analysis of teaching performance and oral foreign language interaction, as well as issues of self and other perception (mostly through the recorded sequence/s; a simplified 5-minute teaching situation with 4 or 5 student teachers), where both student teachers and tutor have an audiovisually supported constructive dialogue and results analysis with a positive reinforcement of the reached aims.

2. Literature review

Borg et al. (1968) and Ferry (1983) considered that microteaching sessions are mostly a training model where there is a transference model between a real and a simulated session. However, in order to understand how this transference operates, it seems more adequate to reflect on how the model was first designed and implemented at Stanford University according to the following features as revised by Borg et al. (1986: 1):

1. First, a set of specific teaching skills is studied by the intern.

2. Then, the intern attempts to apply the skills in a short lesson, usually five to ten minutes, with four or five pupils.

3. This lesson is recorded on videotape and immediately after its completion; the intern watches a replay of the lesson.

4. During the replay a specially trained supervisor gives the intern specific feedback on his performance in the skills.

5. The intern then re-plans the lesson and reteaches it to another group of four or five pupils.

Microteaching has also been related to basic instruction abilities in connection with action-research (Smith & Lovat, 1991; Fernández, 2005), with the critical pedagogy (McMurray, 2000), with reflective teaching (Schön, 1983; Subramaniam, 2005), with action reproduction (Feryok, 2009), with the experiential-reflective learning (Kolb, 1984; Amobi, 2005; Friedman & Schoen,

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2009; Fadde, Aud & Gilbert, 2009), or, today, with communicative competence (Bower et al., 2011). Most commonly, these issues are mostly related to pre-service teacher education (Huber & Ward, 1969; Rose & Chruch, 1998; Fong & Woodruff, 2003; Lee & Wu, 2006; Seferoglu, 2006; Yadav, Bouck, Da Fonte & Patton, 2009; Mergler & Tangen, 2010; Melville et al., 2011; He & Yan, 2011, and others). That is the reason why the next section will analyse each aspect with a special interest in student teacher instruction and critical reflection. As a starting point, the researchers considered Wallace's definition as a further development of the Stanford's model (1991) with full applicability in their own context at the Faculty of Education at Universidad de Alcalá. The research considered (1) four basic theoretical aspects: establishing the teacher's role, proposing the length of the lesson, suggesting the importance of technology to enhance the contents and considering the student teachers distribution; (2) the different stages of the training, which include (a) preparation (*the Briefing*), (b) lesson "performance in small groups" (*the Teaching*), and (c) the technology-based dialogic teacher-teaching-trainee intervention (*the Critique*), which seems to be the most relevant because this is the stage where an authentic space for the reflective-experiential learning is developed and ultimately achieved. Therefore, a special attention will be paid to this stage due to the special relation between theory and practice and its implications for teacher-teaching-trainee co-constructed feedback.

This model was called "reflexive-experiential learning" by Kolb (1984), who considers that the knowledge acquisition process is critically based on the student teachers' consideration of their own experience, which, when self-reflected and conceptualized, becomes the cornerstone of feedback that will eventually lead to further teaching action (whether modified or not). That means that improvement or, at least, change, especially in foreign languages, can only be achieved if there is a constructive dialogue that leads to will to transformation and, finally, to changes in teaching styles or actions. This change is greatly supported by getting aware of what one is doing, especially if technology can help to record and support the dialogue and provide evidence to show how this change can be potentially accomplished. Thus, technology facilitates the creation of a link among theory, practice, and change, which is considered as a "cognitive learning process" (Kelly, 1997) in which critical reflection, "self-maturation" (Ostorga, 2006), and language awareness have a significant role.

From our point of view, technology enhances critical reflection, which considers the implementation of analysis and synthetic processes (Hwang, 2003), the interaction between student teachers and trainers (Gilles et al., 2013), co-reflection processes (Yukawa, 2006), and search and information organisation (Jones & Moreland, 2004). In this case, the experience described in this paper stresses the importance of technology in the cooperation between the trainer and the student teachers to create a dialogue which highlights meaningful learning, one's critical reflection through the use of technology (especially video and Internet), reinforces the learning process, and promotes will of achievement. Storz & Hoffman (2013) emphasize that one-to-one computing enhances student teachers' learning experiences and trainers in varied and creative ways through the centrality of computer-based interactions

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due to the new and varied possibilities of content delivery and a powerful effect of bi-directional feedback (teacher-student or trainer-trainee) which later on is transferred to the trainees' prospective students (also Dooly, 2009). In this sense, online communication, weblogs, and visual repositories virtual platforms (Wassell & Crouch, 2008; Frye et al., 2010) become valid tools to plan and deliver the dialogue, revise teaching sequences, assess own's performance critically (Pyle & Dziuban, 2001), and synthesize what student teachers' understand supported by the interaction with the teacher in a critical exercise of shared knowledge and experience, especially if adequate guidelines and support are provided by the trainer (Bauer & Daugherty, 2001; Hamel, 2012). Technology, thus, has the potential to recreate a shared context (both for the trainer and the student teacher) in which the teaching situation took place (Coll & Sole, 1990), from where teachers and student teachers can cooperate and negotiate meanings and actions. Therefore, it serves to both construct the interactive teacher-teaching-trainees dialogue and to support the personal process of conceptualization processes of negotiation and interpretation of what has been done and what potentially could be achieved (Dooly, 2009).

In this sense, the use of technology for teacher education through micro-lessons also facilitates operations such as "revision of time, planning and facilities for the practicing of subject skills" (Pool et al., 2013: 455) in the dialogic context described in the paragraph above. The illustration and verbal/visual interaction facilitates the relation between the language teacher trainer and the student teacher, and ultimately leads to positive and moderated feedback and optimal opportunities to practice, analyse, and reflect on the specific use of teaching methods and techniques to teach foreign languages.

As a consequence of what has been discussed before, technology in this approach to teacher education, however, introduces a significant revision of the traditional individual use of the language (Frye, 1971) in the relation between trainer and trainee towards a dialogic bidirectional where the interaction between the language teacher-trainer and the teacher-student is mediated and facilitated by the use of technology. This is accomplished by establishing a dialogic discourse based on the teacher-learners performance within the ZPD (Vygotsky, 1978) and its potential capacity to be redirected by feedback (Johnson, 2007).

Technology facilitates the student teachers' capacity to re-plan their teaching and modify the lesson delivery thanks to the collaborative communication established with the instructor (external feedback) and student self-reflection on a person-to-person situation (Casey, 2011) or in synchronic or asynchronous technology based communication (Sarigoz, 2013) between student teachers and the teacher-instructor. By this means, micro-lessons are theoretically benefitted by the dialogic interaction. In this sense, visual recordings facilitate the evidence and the context to benefit communication and, in turn, benefit both the trainer and trainees through the acquisition of new experiential knowledge (MacLeod, 1987). Because some of these issues have not been examined yet, the researchers considered observing whether student teachers also engage in this dialogic situation and their perception.

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3. Practice and results

Since the major goal of this study was to enhance the relationship between professional competence learning and ZPD through micro-lesson teaching in Teacher Education, researchers considered identifying how video can be used for analysis through teacher-instructor interaction and as a means of social interaction and use of language between teacher and students.

The study was based on a microteaching practise to explore the learner's training, analysis, and reflection on language and the methods and skills needed to teach and learn foreign languages. The participants were thirty-four second-year full time students of English as a Foreign Language in BA (Hons.) Primary Education. There were eight microteaching groups with an average of four participants (except two groups of five participants) each 3 hour session which consisted of a) preparation (briefing) of the micro-lesson, b) performance, and c) critique about their own teaching following Wallace (1991). It was considered that a maximum of 5 students per group was ideal to enable appropriate feedback and discussion. The case study has been carried out outside class time in groups of three students during the twelve ECTS contact hours assigned to the course. The action was designed to reinforce the contents of the subject and is divided into three different sections after Seidel's (1998) model of qualitative data analysis: noticing, collecting, and thinking, as illustrated in table 1.

TABLE 1
Microteaching data analysis process based on Seidel (1998)

	STUDENT TEACHER AUTONOMOUS WORK	RESOURCE	TEACHER - STUDENT TEACHER FACE TO FACE INTERACTION
NOTICING	Questionnaire on professional competence	Web 2.0 (Google Drive)	Interview on teacher training practices & skills
COLLECTING	Self-performance data assembly on:	Traditional & Technological:	Comprehensible data categorisation
	a) Microteaching experience	Video	
	b) Professional practice development	Virtual learning environment (Blackboard)	
	c) Use of traditional & Technological resources	Realia, songs, images, Internet (TEFL websites & web apps.) Digital content (Web 2.0; Blogs, YouTube, multimedia)	
THINKING	Microteaching video-recording analysis	Web 2.0 (Dropbox)	TEFL rationalization through dialogic interaction
	Self-awareness of the task effectiveness	Video recordings, TEFL materials, Virtual & digital technologies	Proposals for improvement

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Thus, in the first stage previous to the microteaching practice the questionnaires were read with the students to get an overall understanding of the task (noticing). The evaluation process is an important part of any training program; therefore the second assignment required data collection, categorisation, and analysis. After watching their own microteaching video-recordings in the virtual learning environment, students were required to work autonomously and complete a closed questionnaire about self-performance (collecting). In the final phase, learners contribute their own thinking and proposals for improvement interacting in the ZPD in a reflective individual discussion face to face with the tutor about their video recording presentation (thinking).

The aim of the study was to explore the effectiveness of the microteaching with a view to improving it through open and collective examination of the thinking underpinning teacher training practice and the use of new concepts related to the students' specific area of learning. Data presented at the end of the microteaching was aimed to engage participants in a meaningful dialogue about their own teaching with structured models for self-analysis. The written individual comments were discussed orally with the tutor in order to assure learning self-awareness about the experience, thus enhancing the ZPD.

The most frequent and efficient method for identifying learning acquisition, dialogic interaction, and critical thinking is through self-reported data questionnaires and interviews (Kavaliauskienė et al., 2007: 161), which are the means for data collection in the current study. Interviews were held in order to foster the students' critical thinking about their own teaching-learning experience. This reflection was discussed in a dialogic relation between the language teacher-instructor and the teacher-candidates, enhancing, therefore, the ZPD.

Data was collected from the participants through a series of questions which comprise three main headings concerning i) the microteaching experience, ii) the influence on professional practice, and iii) the use of technological resources for language teaching which are currently used in their instruction, such as blogs, podcasts, video-creators / YouTube, Skype, Dropbox or Blackboard along with some very specific ones like test-generators, vocabulary builders, story telling apps, and others. The results of the learners' responses and reflections on their own teaching after watching their video performance show that the developed process meets the objectives.

The findings revealed that most respondents contemplated using ESP vocabulary and concepts related to teaching English in Primary Education (from the glossary "Materials, Methods & Resources in Primary Education"), hence broadening their specific knowledge in their specific area.

Participants have indicated their perceptions on achieving teaching goals, lesson timing and planning using technology like e-mails, mobile telephone text messages, and Dropbox in collaborative and partnership work. Students have also considered that interaction and

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co-construction of learning deepens relationships and understanding between partners, leading, therefore, to improvement.

Results have shown, however, that most students prefer to use traditional resources (flashcards, songs, and realia) with the help of multimedia and specific digital resources (YouTube, TESOL websites, etc.) to deliver a lesson rather than creating their own designed technological materials or programs (*Edilim, Movie Maker*, etc.) for teaching English. Analysis of this data indicates that students gave high ratings to the experience exceeding our expectations in terms of commitment and interest in the project. Although teaching in front of a video may have been considered intimidating, it is thought to be a useful resource for microteaching evaluation and as a means of language and social interaction between students and instructors.

Qualitative data often relates to a small sample size, as is the case with this research project. However, despite being small in scope, the research is compensated by the sheer scale and complexity of the data (Brewer, 2000). Qualitative thematic analysis was employed by the researchers, and the approach followed the general guidelines of analysing the written data for significant phrases, developing meanings and clustering them into themes, and presenting a description of the themes (Creswell, 2007).

4. Discussion

This section of the paper focuses on the third cognitive stage (reflective-experiential learning) previously mentioned by Wallace (1991) in order to develop the idea of interaction in the ZPD. The use of italicized direct quotes will document local experiences and provide evidence of the views and concerns stated by the participants. The main topics that arose after the analysis of the video performances with the tutor are rationalised below.

4.1. The microteaching experience

Participants found micro-lessons a very exciting and useful situation since "*it (Microteaching) is a great experience because it is similar to a live classroom with children and it helps students get prepared for their future*". According to Donnelly & Fitzmaurice (2011), this kind of practice enables students to get a sense of themselves as teachers. These authors also suggest that feedback must be discussed within the setting in which it occurs, because, when it is disaggregated from its settings, it loses many of its features of practice.

The ability to look at their practice with a deeper understanding of the learning processes has enabled student teachers to become more reflective and aware when planning their lessons. Through a process of reflection, future teachers reported some thoughts on their teaching.

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We have to learn from our mistakes; we should have allocated the flashcards before starting the lesson. Besides, more instructions to clarify how to do the activities would have been needed.

During the creation of the learning environment, students experienced and realised the importance of planning, structuring, giving pace for delivery, and developing strategies for student engagement to avoid certain aspects such as "*being too repetitive in the delivery and playing monotonous songs*" or "*using too many resources and materials in just one lesson to avoid misunderstanding*". Participants also expressed "*how much is learnt by observing oneself and colleagues about how to initiate and manage teaching*" (e.g. doing an introduction, managing silent moments, keeping control of the situation, etc.); since "*silent moments can confuse students, teachers must control the classroom and create the appropriate atmosphere all the time*". According to Donnelly & Fitzmaurice (2011), a process that is primarily focused on personal learning from personal experiences can generate specific results. From the microteaching the students extracted conclusions which helped them to improve.

Co-construction of learning deepens relationships and understanding between all learning partners and can lead to "*microteaching improvement provided that we (students) organise ourselves better*". It generally refers to collaboration in learning beyond delivery of learning or projects (Allen, 1967); for example, students gain reassurance from receiving positive feedback from their peers in the group as they feel that "*one can show his partners what has been worked on and what can actually be done*". Most students have limited teaching experience and revealed some anxiety and uncertainty in their own ability. Positive feedback has given them the confidence to try new methods.

I have to learn to be less serious and interact more with the students. I would like to repeat this experience since watching the video and getting feedback from my classmates and the tutor is very useful for the future.

The microteaching provided an opportunity for participants to think critically about their own professional development and classroom activities, and many have learnt that some changes are needed in their performance. By engaging in the process of microteaching, participants learnt that professional development must be an on-going process of refining skills, inquiring into practice, and developing new methods. Through enabling each future teacher to engage in a collaborative dialogue, all had the chance to broaden the knowledge and expertise needed to guide students toward successful learning (Donnelly & Fitzmaurice, 2011).

4.2. Professional practice

According to Donna (2000: 39), the objective of learning English for Specific Purposes (ESP) is to foster motivation by enabling learners to perceive a relationship of their studies with

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language use. Microteaching played a twofold role as participants learnt not only from their own practise as future teachers, but also from observing their colleagues and through self-observation on video.

> Microteaching is a motivating and instructive practice to learn how to teach pre-school students. Besides, watching a video about our own performance is a very useful practice because we can see our mistakes and improve them. It really helps us get prepared as future teachers.

Watching others in a microteaching group is a stimulating and insightful experience for the students. Teaching requires creative responses, and the participants found in the microteaching a chance to see other participants put creative and didactic strategies into practice, in order to be discussed around different approaches. Through analysis and discussion of other teaching styles, the participants were able to attain a level of self-awareness.

> After watching the video, I have realised that we have to try to be less nervous in front of an audience; this way our pronunciation and fluency will improve.

Observing others in the microteaching group enabled participants to refine their ability to define and distinguish characteristics that promote a quality learning experience.

> By developing a micro lesson I have become aware of the convenience of using appropriate contents and specific vocabulary of English for professional purposes (teaching), such as exploiting specific vocabulary for children and using different methods and approaches (TPR, TBL, etc.).

As stated by Donna (2000), the ESP practitioner general education includes training in language and the content area of the learner's speciality. By carrying out a microteaching, students "*learn key issues such as to harmonize the level of the course with the contents and vocabulary taught as well as to control the time so that all teaching aims are covered in a settled schedule*", as they expressed. With this experience, students learnt the relevance of following a (ESP) pedagogy in which syllabus, contents, and methods must be determined according to the learners' needs (Hutchinson & Waters, 1987). Participants were trained to identify certain specific language needs arising from an intention to relate the foreign language to classroom activities within the Primary School Curriculum.

4.3. Use of technological resources for language teaching

Despite the expectations for the use of technology since the use of specific digital content (web 2.0; video, audio, and images) supports English teaching and learning (García, 2015), most students agreed "technology is still a source of fears and insecurity for many teachers" (García Laborda & Magal Royo, 2007: 321):

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> I need to integrate technology to do the activities because children nowadays love it. I am howe-
> ver used to traditional resources and I feel myself more confident using them.

The microteaching performance was filmed and transferred to streaming video, which was subsequently uploaded to the virtual learning environment supporting the course. Streaming video was displayed by the participants on their computers at home in order to view their microteaching sessions and be able to answer the questionnaire needed to carry out the third stage of the activity. Gross-Davis (1993) advocated that the use of videotape to view and listen to one's teaching performance from the students' perspective is a very valuable experience because, by analysing a recording of the dynamics of your classroom, you can check the accuracy of your perceptions of how well you teach, identify those techniques that work and those that need revamping (p. 34). Moore et al. (2007) believe that viewing yourself through other people's eyes is a revealing and sometimes disturbing exercise (p. 15). In the immediate confines of the microteaching session, observing oneself on video involves experiencing self-consciousness and uncertainty:

> The idea of a camera filming me was intimidating and I could not behave naturally nor use the
> appropriate tone of voice. This Micro lesson was my first attempt at being a teacher, so, I thought
> that I looked and sounded quite strange in the video.

However, the benefits of using video recording extend even further by providing students with perspectives that support them in building upon their strengths, exploring weaknesses, and providing understanding of classroom interactions (Warin et al., 2006).

Van Manen (1991: 205) argues that the experience of reflecting on past pedagogical experience enables apprentices to enrich and make their future pedagogical experience more thoughtful. Creating space for such reflection is the first step to becoming reflective about work, and the microteaching sessions clearly gave space and opportunity for the participants to think about their own teaching. The microteaching sessions consist of trying to create situations around teaching so that individual practice is examined and reflected on by participants. However, it is an artificial situation which is likely to provoke concerns such as "*it is stressful to compress a topic into just 20 minutes*". It also presented challenges and gave rise to anxieties: "*I felt nervous because teaching in front of peers is unusual for me*".

The quotations above are a selection drawn from the data set to give a sense of the perceived results on practice. There is clear evidence, however, of a growing self-awareness and "attentiveness to self-in-practice" (Warin et al., 2006: 243). It is clear from data examination that microteaching provided not only enthusiasm, but also an opportunity for future teachers to identify aspects of their own practice. This supports the idea that the development of self-reflection is based on the concept of the teacher as a reflective practitioner and his ability to analyse his own approaches to provide more effective teaching methods. As stated

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by Gelter (2003) "reflective capacity has to be learned and encouraged" (p. 337), and the micro-teaching element on the programme is an attempt to do this. This idea supports Vygotsky's (1978) concept of ZPD by considering that this model for learning enhances students' awareness of other concepts.

5. Conclusions

The data analysis and discussion evidences the positive effects of technology and/for micro-lesson reflection in students and trainers' attitudes towards the use of microteaching. This evidence is certainly not new, but the research team believes that the use of the interactional dialogue could enhance the effect in actual performance. Besides, this dialogue is immensely triggered and supported by the use of technology in and out of the classroom. The potential use of technology for self-reflection and technique or skills improvement through teacher support, renewed contents, and language improvement definitely can facilitate the student teacher improvement and, secondarily, an increase in motivation for them and the instructors alike. The negotiation within the ZPD reduces the social distance between instructor-students and helps to understand suggestions from both sides.

Further research should include the applicability in the prospective students' classrooms, the analysis of potential facilitation through different types of technology (whether software, hardware, author-designed software or easily accessible and inexpensive apps.), and the use of other media. Obviously, the results are also mediated by the sample size, which should be increased in future research. The research could also be potentiated by further dialogue analysis from a linguistic perspective. However, common understanding and an extensive reduction of the cognitive pressure in the instructor's side may eventually lead to a dialogic potential tool, especially if VOIP tools make the communication more fluid, especially after graduation or at the time of the students' internship (thus reducing the communicative lapse created by periodical meetings) for planned instruction and reflective-experiential learning. All in all, microteaching still has a significant potential in teacher education, especially when supported by technology. However, more local and *ad hoc* studies are necessary to envision local realities. The research team considers that this paper is not an end in itself but a very promising beginning.

6. Bibliographic references

Allen, Dwight, 1967: *Microteaching, A Description*, Standford, CA: Standford University [retrieved November 20, 2016, from http://files.eric.ed.gov/fulltext/ED019224.pdf].

Amobi, Funmi, 2005: "Preservice teachers' reflectivity on the sequence and consequences of teaching actions in a microteaching experience", *Teacher Education Quarterly* 32 (1), 115-130.

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Bartley, Diana E., & Robert L. Politzer, 1967: *Practice-Centered Teacher Training, Spanish-A Syllabus for the Training or Retraining Of Teachers of Spanish* [retrieved November 20, 2016, from http://files.eric.ed.gov/fulltext/ED013032.pdf].

Bauer, William I., & James F. Daugherty, 2001: "Using the internet to enhance music teacher education", *Journal of Music Teacher Education* 11 (1), 27-32 [retrieved December 18, 2016, from http://search.proquest.com/docview/195779311?accountid=14609].

Borg, Walter R., Warren Kallenbach, Merva Morris, & Allen Friebel, 1968: *The effects of videotape feedback and microteaching in a teacher training model* [retrieved November 20, 2016, from http://files.eric.ed.gov/fulltext/ED024650.pdf].

Bower, Matt, Michael Cavanagh, Robyn Moloney, & MingMing Dao, 2011: "Developing communication competence using an online video reflection system: Pre-service teachers' experiences", *Asia-Pacific Journal of Teacher Education* 39 (4), 311-326.

Brewer, John, 2000: *Ethnography*, Buckingham: Open University Press.

Casey, Katherin, 2011: "Modeling lessons", *Educational Leadership* 69 (2), 24-29.

Coll, Cesar, & Isabel Sole, 1990: "La interacción profesor-alumno en el proceso de enseñanza y aprendizaje" in César Coll, Jesús Palacios, Álvaro Marchesi (eds.): *Desarrollo psicológico y educación II*, Madrid: Alianza editorial 2 (2), 315-334.

Creswell, John W., 2007: *Qualitative Inquiry & Research Design: Choosing among five approaches*, 2nd ed., Thousand Oaks, California: Sage.

Donna, Sylvie, 2000: *Teaching Business English*, Cambridge: Cambridge University Press.

Donnelly, Roisin, Marian Fitzmaurice, 2011: "Towards Productive Reflective Practice in Microteaching", *Innovations in Education and Training International* 48 (3), 335-346.

Dooly, Melinda, 2009: "New competencies in a new era? Examining the impact of a teacher training project", *ReCALL: The Journal of EUROCALL* 21 (3), 352-369.

Fadde, Peter J., Susan Aud, & Sharon Gilbert, 2009: "Incorporating a video-editing activity in a reflective teaching course for pre-service teachers", *Action in Teacher Education* 31 (1), 75-86.

Fernández, Maria Luisa, 2005: "Learning through microteaching lesson study in teacher preparation", *Action in Teacher Education* 26 (4), 36-47.

Ferry, Gilles, 1983: *Le trajet de la formation*, Paris: Dunot.

Feryok, Anne, 2009: "Activity theory, imitation and their role in teacher development", *Language Teaching Research* 13 (3), 279-299.

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Fong, Cresencia, & Earl Woodruff, 2003: "Web-based video and frame theory in the professional development of teachers: Some implications for distance education", *Distance Education* 24 (2), 195-211.

Friedman, Audrey, & Lea Schoen, 2009: "Reflective practice interventions: Raising levels of reflective judgment", *Action in Teacher Education* 31 (2), 61-73.

Frye, Bill J., 1971: *An analysis of teacher education innovations with recommendations for their utilization in the professional preparation of prospective industrial arts teachers*, Michigan: University Microfilms [retrieved November 20, 2016, from http://search.proquest.com/docview/64310132?accountid=14609].

Frye, Elizabeth M., Woodrow Trathen, & David A. Koppenhaver, 2010: "Internet workshop and blog publishing: Meeting student (and teacher) learning needs to achieve best practice in the twenty-first-century social studies classroom", *The Social Studies* 101 (2), 46-53.

Gage, Nathaniel Lees, 1968: "An analytical approach to research on instructional methods", *Journal of Experimental Education* 37 (1), 119-125.

García Esteban, Soraya, 2015: "Using Social Constructivism and Digital Content to Enhance English Language Teacher Training", *Folio Journal* 16 (2), 33-38.

García Laborda, Jesús, & Soraya García Esteban, 2016: "Human Communicative Dialogic Practices in Content and Language-based Educational Interactions with Technology", *International Journal of Educational Sciences, The Anthropologist* 25 (3), 220-228.

García Laborda, Jesús, & Teresa Magal Royo, 2007: Book review: *How to teach English with Technology* (Gavin Dudeney & Nicky Hockly) in *Educational Technology & Society* 10 (3), 320-324.

Gelter, Hans, 2003: "Why is reflective thinking uncommon?", *Reflective Practice* 4 (3), 337-344.

Gilles, Carol, Lina Trigos Carrillo, Yang Wang, Jenny Stegall, & Barri Bumgarner, 2013: "Working with my mentor is like having a second brain/hands/feet/eyes: Perceptions of novice teachers", *English Journal* 102 (3), 78-86.

Gross-Davis, Barbara, 1993: *Tools for Teaching*, San Francisco: Jossey-Bass.

Hamel, Christine, 2012: "Supervision of pre-service teacher: Using internet collaborative tools to support their return to their region of origin", *Canadian Journal of Education* 35 (2), 141-154.

He, Chuanjun, & Chunmei Yan, 2011: "Exploring authenticity of microteaching in pre-service teacher education programmes", *Teaching Education* 22 (3), 291-302.

Huber, Joe, & Blaine E. Ward, 1969: "Education", *Journal on Excellence in College Teaching* 90 (1), 65-68.

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Linking Technology and Reflective Practice in Primary ELT Teacher Education

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Hutchinson, Tom, & Alan Waters, 1987: *English for Specific Purposes: a Learning. Centred Approach*, Cambridge: Cambridge University Press.

Hwang, Ahn-Sook, 2003: "Training strategies in the management of knowledge", *Journal of Knowledge Management* 7 (3), 92-104.

Johnson, Karen E., 2007: "Tracing teacher and student-teaching-trainee learning in teacher-authored narratives", *Teacher Development* 11 (2), 1-14.

Jones, Alister, & Judy Moreland, 2004: "Enhancing practicing primary school teachers' pedagogical content knowledge in technology", *International Journal of Technology and Design Education* 14 (2), 121-140.

Kavaliauskienė, Galina, Ligija Kaminskienė, & Lilija Anusienė, 2007: "Reflective practice: assessment of assignments in English for Specific Purposes", *Ibérica* 14, 149-166.

Kelly, Curtis, 1997: "David Kolb. The Theory of Experiential Learning and ESL", *The Internet TESL Journal*, vol. III, no. 9 [retrieved November 20, 2016, from http://iteslj.org/Articles/KellyExperiential/].

Kolb, David A., 1984: *Experiential learning: experience as the source of learning and development*, Englewood Cliffs, New Jersey: PrenticeHall.

Lee, Greg C., & Cheng-Chih Wu, 2006: "Enhancing the teaching experience of pre-service teachers through the use of videos in web-based computer-mediated communication", *CMC: Innovations in Education and Teaching International* 43 (4), 369-380.

LeGros, Nadine, & Farahnaz Faez, 2012: "The intersection between intercultural competence and teaching behaviors: A case of international teaching assistants", *Journal on Excellence in College Teaching* 23 (3), 7-31.

MacLeod, Gordon, 1987: "Microteaching: end of a research era?" *International Journal of Educational Research* 11 (5), 531-541.

McKnight, Philip C., & David P. Baral, 1969: "Microteaching and the technical skills of teaching: A bibliography of research and development at Stanford University, 1963-1969. Research and development memorandum 48" [retrieved November 20, 2016, from http://files.eric.ed.gov/fulltext/ED030621.pdf].

McMurray, Donald S., 2000: "Technology for Critical Pedagogy: Beyond Self-Reflection with Video" in *Society for Information Technology & Teacher Education, International Conference: Proceedings of SITE 2000 (11th, San Diego, California, February 8-12, 2000)*, 6-11 [retrieved November 20, 2016, from http://files.eric.ed.gov/fulltext/ED444458.pdf].

Melville, Wayne, Michael G. Bowen, & Graham Passmore, 2011: "Pre-service teacher reflections, video-conference and WebCT: An exploratory case study", *Electronic Journal of Research in Educational Psychology* 9 (2), 799-822.

ONOMÁZEIN 41 (septiembre de 2018): 78 - 94
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Linking Technology and Reflective Practice in Primary ELT Teacher Education

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Mergler, Amanda G., & Donna Tangen, 2010: "Using microteaching to enhance teacher efficacy in pre-service teachers", *Teaching Education* 21 (2), 199-210.

Moore, Sarah, Gary Walsh, & Angelica Rísquez, 2007: *Teaching at College and University. Effective Strategies and Key Principles*, Maidenhead: Open University Press.

Ostorga, Alcione N., 2006: "Developing teachers who are reflective practitioners: A complex process", *Issues in Teacher Education* 15 (2), 5-20.

Pyle, Ransford C., & Charles D. Dziuban, 2001: "Technology: Servant or master of the online teacher?", *Library Trends* 50 (1), 130-144.

Pool, Jessica, Gerda Reitsma, & Elsa Mentz, 2013: "An Evaluation of Technology Teacher Training", *International Journal of Technology and Design Education* 23 (2), 455-472.

Rose, Dennis J., & John Church, 1998: "Learning to teach: The acquisition and maintenance of teaching skills", *Journal of Behavioral Education* 8 (1), 5-35.

Sarigoz, Iskender Hakki, 2013: "Adjusting language level in teacher-talk in ELT microteachings with specific reference to distance education teacher", *Turkish Online Journal of Distance Education* 14 (2), 165-184.

Schön, Donald, 1983: *The Reflective Practitioner: How professionals think in action*, New York: Basic Books.

Seferoglu, Gölge, 2006: "Teacher candidates' reflections on some components of a pre-service English teacher education programme in Turkey", *Journal of Education for Teaching: International Research and Pedagogy* 32 (4), 369-378.

Seidel, John V., 1998: *Qualitative data analysis*, Colorado Springs, CO: Qualis Research.

Smith, David, & Terence Lovat, 1991: *Curriculum: Action on reflection* (2nd ed.), Wentworth Falls: Social Science Press.

Storz, Mark G., & Amy R. Hoffman, 2013: "Examining response to a one-to-one computer initiative: Student and teacher voices", *RMLE Online* 36 (6), 1-18.

Subramaniam, Selva Ranee, 2005: "Trainee teacher practices: A case study", *Journal of Science and Mathematics Education in Southeast Asia* 28 (2), 96-116.

Van Manen, Max, 1991: *The Tact of Teaching*, Albany: State University of New York Press.

Vygotsky, Lev, 1978: *Mind in society*, Cambridge, MA: Harvard University Press.

Wallace, Michael J., 1991: *Training foreign language teachers. A reflective approach*, Melbourne: CUP.

ONOMÁZEIN 41 (septiembre de 2018): 78 - 94
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Linking Technology and Reflective Practice in Primary ELT Teacher Education

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Warin, Jo, Mandy Maddock, Anthony Pell, & Linda Hargreaves, 2006: "Resolving identity dissonance through reflective and reflexive practice in teaching", *Reflective Practice* 7 (2), 233-245.

Wassell, Beth, & Corey Crouch, 2008: "Fostering connections between multicultural education and technology: Incorporating weblogs into preservice teacher education", *Journal of Technology and Teacher Education* 16 (2), 211-232.

Yadav, Aman, Emily Bouck, Alexandra Da Fonte, & Scott Patton, 2009: "Instructing special education pre-service teachers through literacy video cases", *Teaching Education* 20 (2), 149-162.

Yukawa, Joyce, 2006: "Co-reflection in online learning: Collaborative critical thinking as narrative", *International Journal of Computer-Supported Collaborative Learning* 1 (2), 203-228.