Podcast Applications in Pre-service Language Teacher Education from a Constructivist Perspective

Seda Güler,   Cukurova University, Education Faculty, Adana.
Yonca Özkan*, Cukurova University, Education Faculty, Adana.

Abstract

This study aims to investigate the perceptions of pre-service English language teachers towards the use of podcasts. In addition, it surveys to what extent the pre-service language teachers use Web 2 tools in their academic lives as well as in their personal lives and their views on the benefits and drawbacks of podcasts. The *Teaching Language Skills Course* designed specifically for the third year pre-service teachers is blended with podcasting in a web-based platform. Twenty-two pre-service language teachers who take the course constitute the working group. The theoretical background of this study is based on social constructivism and a mixed method research design is used. The questionnaire and face-to-face interviews are held at the beginning and the results are compared to see if there is a significant change. Results show that participants have a positive view of podcasts in general and have a tendency to use the podcasts in their following teaching career.

Keywords: Pre-service language teacher education, technology and teacher education, Web 2 tools in higher education, podcasts, teaching English, social constructivism.

---

* ADDRESS FOR CORRESPONDENCE: **Yonca Özkan*,** Cukurova University, Education Faculty, Adana. *E-mail address*: yoncacaylakliozkan@gmail.com / Tel.: +0322 338 64 58

1. Introduction

Technology, beyond any doubt, has become an inseparable part of our lives at an accelerated pace over the last few decades. Today, advances of the Internet, communication and information technologies have led the majority of people to use both the Internet and digital technologies in their personal and professional lives. These improvements have opened a new era for education and reshaped the teaching and learning process, as well. The availability of computer technologies, such as the Internet, has much expanded the educational options to learners and instructors (Osguthorpe & Graham, 2003). In modern education approaches, teachers are the facilitators, guides and motivators in a lifelong learning process. Thus, they should be able to benefit from a wide range of communication and information technologies in their work and encourage their learners' to make use of these technologies while taking the responsibility of student learning in a student-centered learning environment. The Internet and information technology are well suited to be used within the learner-centered approach.

Over the years, educational pedagogy has changed as a consequence of innovations in technology and the eras' needs to enhance the quality of education. Three traditional educational philosophies, which are behaviourism, cognitivism and constructivism, have been blended into a teaching environment throughout this process, and it is significant enough to require a closer look into these theories to decide how to blend the teaching and learning process with technology. In this study, using podcasts is being examined within the scope of social constructivism. Social constructivism emphasises the need for collaboration among the learners and instructors in the learning process to provide the learners with opportunities to be more free, direct their own learning, enhance peer support and thus, receive reciprocal learning. As Karagiorgi and Symeou (2005, p. 24.) states, 'Today, learning is approached as a constructive, self-regulated, situated, cooperative and individually different process'.

Today, academics have met on the point that both face-to-face and online learning environments have both advantages and disadvantages. As Graham (2006) stated, it is crucial to understand the strengths and weaknesses of both face-to-face and online learning environments in order to gain benefit from the strengths of both environments and avoid their weaknesses; to create the best instructional designs which is called as *blended learning* that can be the many different combinations of pedagogical approaches. According to Ross and Gage what is significant is *how* to blend rather than *what* to blend for the future learning systems (Driscoll, 2002; Graham, 2006). The reason why most of the instructors prefer to use blended learning is to create the best learning environment for their learners with consideration of the pros and cons of both face-to-face and computer-mediated environments.

As Singh (2003) mentioned, blended learning enables learners to interact in an online environment independent of time constraints that limit the interaction between learner and instructor and learner and learner in a face-to-face classroom. Learner flexibility and the ease of accessibility make the blended learning advantageous for further education.

Motteram and Sharma (2009) find Web 2.0 technologies very beneficial for language learning in a blended world if language teachers provide appropriate materials and activities considering the needs of their learners. There exist all kinds of authentic and useful materials; most of them are free of charge, for example, YouTube and Wikipedia. Web 2.0 tools offer learners the chance to be social textually, orally, visually and aurally. In blogs, wikis, Google Docs, Msn, Google Talk and forums, the text is very significant and they can also give the chance to practice spoken language in writing with the text chat. Blogs are widely used in educational contexts and believed to enhance academic skills as well as social skills (Philip & Nicholls, 2009, Hourigan & Murray, 2010, Özkan, 2011). Some programs like MSN, Skype, Google Talk, WizlQ can not only be used for one-to-one oral communication but also in groups and video conferencing exchanges. Podcasting is also used for audio purposes (Motteram & Sharma, 2009).

Wang and Vasquez (2012) interpret that the subjects investigated in computer-assisted language learning have been tremendously increased by concentrating more on recent subjects such as learners' identities, online collaboration and learning communities, which are different from previous research that focus on the traditional four language skills areas within the language learning environments equipped with Web 2.0 technologies (Wang & Vasquez, 2012).

Braun (2007) defined podcasts as downloadable audio and video files to computers and/or to portable audio and video devices that are open to subscription and developed continuously. To make a simple definition, podcasts are audio or video MP3/MP4 recordings that are uploaded onto the Internet and can be directly downloaded to computers, mobile devices, MP3 players, even on cameras and can be listened to at any time. Subscription feeds are also available with Really Simple Syndication notification that informs the subscriber automatically when there is a new podcast. It is similar to a radio broadcast, but is over the Internet.

Most of the participants own MP3 players and mobile phones that have the ability to play podcasts. In a survey conducted in the UK (BMRB, March 2007) revealed that 69% of youngsters and 32% of adults owned an MP3 player and nearly 4 million people use their mobile phones as MP3 players. Another survey in Europe indicated that over 7% have their own portable music player in 2006 but was at 2% in 2004 (Screen Digest cited in BBC, 2006) (Edirisingha, Rizzi, Nie & Rothwell, 2007). As a consequence, podcasting has become popular and increasing attention has recently been given to the use of podcasting for various reasons.

The present study attempted to explore the perceptions of pre-service teachers towards the potential of podcasting in promoting the constructivist approach in language learning. The perceptions and attitudes of pre-service teachers are crucial for the use and effectiveness of podcasting in language teaching, as well as significant in promoting positive attitudes, perceptions and self-esteem among their prospective learners.

As they become self-aware individuals, pre-service teachers can transfer such perceptions to their professional development. Bearing this purpose in mind, pre-service teachers' perceptions and use of the Internet and other Web 2.0 technologies and the blended learning environment were also investigated to ascertain their objective views about the possible benefits or drawbacks for the utilisation of podcasting for educational purposes. Hence, it might present a broader picture of their perceptions for the attainment of podcasting in their professional lives.

Podcasting, one of the Web 2.0 tools has recently been investigated and various benefits are observed in many of the studies, yet pre-service teacher programmes should integrate this technology in order to provide opportunities to experience and enhance their competence in using this tool for educational purposes. The present study tried to evaluate the pre-service language teachers' perceptions about podcasting integrated with course content. With reference to the aim of the study, a *Teaching Language Skills Course* of pre-service English language teachers equipped with specifically designed podcasts relevant to the content of the course in a web-based platform enhanced a collaborative, learner-centered and reflective learning environment.

This study is inspired by the curiosity to understand the effect of podcasting in one of the methodology courses for pre-service language teachers. Thus, it tries to examine their perceptions regarding methodology courses supported by podcasting. The aim is to investigate the perceptions of pre-service English teachers' use of podcasts in language skills courses within a constructivist framework; to discover whether pre-service language teachers' perceptions are positive or negative and whether there is any difference in their perceptions at the end of the study. This study is also a significant attempt to assess the performance of the pre-service language teachers in podcast-related tasks, so as to examine their progress throughout the process and the effect of podcast use to the grades and self-inquiry of the pre-service language teachers.

2. Methodology

2.1. Design

In this study, mixed methods research design, composed of both qualitative and quantitative data, is used in order to ensure the triangulation and improve validity and reliability of the study. The qualitative data was gathered through an open ended section of questionnaires, semi-structured interviews and pre-service language teachers' replies on podcasts. The quantitative data was gathered from the questionnaire and podcast task replies from pre-service language teachers.

2.2. Participants

The participants of this study consisted of 22 university students from the Department of English Language Teaching at Cukurova University in Turkey. The study was conducted with a group whose participants were students of a methodology course delivered in the first semester of the third year. Their ages ranged from 20 to 23 years and the first language of the participants is Turkish. The group consisted of 10 female and 12 male pre-service language teachers. The participants enrolled in this course are computer literate and had Internet access. Except for one participant, all of the participants were familiar with podcasts and listened to a podcast at least once before the study. Fifteen of the participants had also finished an advance online task. Podcasts were integrated into the course via a website created specifically for this study and the process began with a lesson on this website and podcasting.

2.3. Website

Our aim was to run this specific study on a well-suited academic platform. For this reason, we have created an easily accessible, 85% dynamic and interactive website.

2.4. Data analysis

In this study, both qualitative and quantitative data analysis techniques were utilised. SPSS 11.5 and content analysis techniques were used for the analysis of this data which was obtained from questionnaires, interviews, weekly tasks and reflections of the pre-service language teachers. During the content analysis, the researcher read the texts and coded the data with the modified version of Ho and Richards' (1993) framework. The researcher categorised and grouped parts of the data that necessitated new coding in a similar way to that of the framework. After grouping and naming common themes and patterns, the researcher interpreted them. The instructor followed the same process of coding, yet she analysed and coded a percentage of each participant's randomly selected web page postings. When the two researchers compared the results, they concurred with almost 80% of the coding. After the analysis and final decision on differences, participants 'answers were input using the numeric values/thematic analysis, formulated from data collection tools, into the SPSS program. Member check was also conducted with the participants in order to increase the credibility and validity of the results.

2.5. Findings

Findings related to the first research question -*What are the pre-service language teachers' opinions of advantages from language skills courses equipped with podcasts?* - indicate that pre-service teachers mostly benefited of such experience. The idea of the utilisation of podcasts in language learning has gained popularity at an accelerated rate recently and many researchers have tried to figure out the potential benefits of this technological tool for the learning environment. Yet, the opinions of pre-service language teachers of the advantages of podcasting have not been investigated sufficiently. This

is crucial for getting the most out of this tool and maintaining a well-organised learning environment for language learners. Since they are expected to be pioneers of innovative applications as prospective teachers, this research question sought the opinions of pre-service language teachers on the favourable aspects of podcasts integrated into a *Teaching Language Skills* course.

The descriptive data analysis of item 15 of the pre and post questionnaire, item 14 of the pre interview and items 1 and 2 of the post interview revealed that participants of the study had a consensus on the positive contribution of podcasting to their listening skills. Furthermore, according to the results of this study, podcasting positive impact was not only on listening but also on all types of other language skills such as speaking, writing, reading as well as vocabulary and grammar. As Hasan and Hoon (2013) cited, podcasting can increase the language learning of learners in all kinds of areas including listening, pronunciation, vocabulary, grammar, speaking and related learning activities (Chan et al., 2011; Kaplan-Leiserson, 2005). The results also revealed the advantage of podcasting in terms of pronunciation improvement. The attitude of the participants about the benefit of podcasting in the improvement of pronunciation is also emphasised by some of the other researchers such as Lord (2008) and Knight (2010). However, Ducate and Lomicka (2009) reported that learners' pronunciation did not improve significantly with regard to accentedness and comprehensibility, yet they claimed that 16 weeks of study was not long enough for significant improvement and there was no in-class pronunciation practice during the study.

All of the participants also highlighted the benefit of this study regarding raising awareness about self-study and maintaining study habits. Li (2012) and Abdous, Camarena and Facer (2009) also stressed in their studies the improvement of study habits of the participants. Participants both in the pre questionnaire and post questionnaire displayed the practical nature of podcasting and its accessibility. This assertion of the participants was in line with the study of Abdous et al. (2009) as they expressed that podcasts can serve as an easily accessible and economical tool for the mobile learners of today. Hasan and Hoon (2013) supported this result, as well by claiming that flexibility is one of the reasons of the positive perceptions toward podcasting as learners can listen to podcasts at their own time and pace and can reach the materials they missed or review the ones they did not understand easily.

This study revealed that podcasting contributed to the establishment of a constructivist way of the learning environment. According to the results, podcasting is an effective way of enhancing exposure not just to the target language in general but also to the ELT jargon. It is an authentic source of L2 knowledge and provides the opportunity to put the theory into practice. In this way, it contributes to the academic and professional development of the pre-service language teachers within a constructivist framework. Similarly, Thorne and Payne (2005) emphasised that podcasts offer learners authentic materials that represent real language. The analysis of data displayed that podcasting integrated into the course content is favourable for the participants in exchanging ideas with their peers easily, which established a collaborative learning atmosphere in which the sharing with their friends provided them with peer support. The pre-service language teachers also displayed that this implementation raised their consciousness and led to critical thinking which is significant in internalising the knowledge from a constructivist perspective of learning. This is because new knowledge is built on existing knowledge through an active process of interaction, reflection and discovery of the learner.

For the second question of the study pre-service language teachers' opinions were elicited related to the disadvantages from language skills courses equipped with podcasts.

Item 16 of the pre and post questionnaire, item 15 of the pre interview and item 3 of post Interview sought pre-service language teachers' opinions about the disadvantages of podcasting integrated into course content. Although the majority of the pre-service language teachers (30.4%) in the pre questionnaire and 57.1% in the pre interview agreed that the utilisation of podcasts has no disadvantage, this study contributed positively to this notion as this rank increased to 63.6% in the post questionnaire and 60% in the post interview. So it can be clearly observed that even if the pre-service language teachers had positive perceptions of podcasting, performing it through a semester added to

this perception. This result is in line with the results of many studies such as Abdous et al. (2009), Harris and Park (2008), Hasan and Hoon (2013), Kim and King (2011) and Harrison, Smith and Yates (2009).

The second most frequently uttered disadvantage of podcasts (34.8% pre questionnaire, 22.7% post questionnaire and 14.3% pre interview) was the language input. Pre-service language teachers revealed that if the language input is complex, comprehension becomes difficult. However, in the post questionnaire this disadvantage was not articulated by any pre-service language teachers; therefore, it can be interpreted that the podcasts of the study were compatible with the expectations of the pre-service language teachers. The participants of the study also laid emphasis on the duration of the podcasts in the pre and post questionnaires and the pre interview as it can turn out to be a time-consuming activity with long podcasts. Chan et al. (2011) similarly stressed the significance of the length of the podcasts in triggering the interest of learners and affecting their perceptions. A small amount of the pre-service language teachers (8.7% in the pre questionnaire, 7.1% in the pre interview and 10% in the post interview) displayed that as it a technological tool, learners with economic problems who do not own any laptops, computers, MP3 players or smartphones can have problems to access the podcasts easily. However, the benefit of accessibility put forth in many other studies, for instance, Abdous et al. (2009), stressed that learners have the opportunity to reach podcasts anytime and anywhere thanks to its accessibility.

Some of the disadvantages were only revealed in the pre questionnaire and pre interview, so it is understood that the negative perceptions of these themes disappeared after the implementation of this study. These disadvantages were: 1) some pre-service language teachers mentioned that podcasts addressed only some aspects of intelligence and stressed the multiple intelligence theory of Gardner and further expressed that various methods and techniques should be utilised in a learning environment; 2) some participants stressed the quality of the voice and recording to maintain an effective listening, so acoustic problems were revealed as another potential disadvantage of podcasts. On the contrary, some of the themes were only appeared in the post questionnaire. Fifteen percent of the pre-service language teachers stressed the difficulty of the accomplishment of the tasks related with podcasts in time and 10% of them referred the complexity of the tasks as a disadvantage of podcasts. A small amount of the pre-service language teachers (5%) revealed that understanding a native speaker was hard at the beginning but by time, it got easier.

The last question focused on the perceptions of pre-service language teachers' in language skills course equipped with podcasts before and after the application of the study.

In the present study, analysis of the responses to items 12, 14, 15 and 17 of the pre interview, items 13, 15, 16, 18 of the pre and post questionnaire and item 3 of the post interview were compared in order to identify the differences between the pre and post application of the study among the perceptions of the pre-service language teachers. The results of the first and last application of the questionnaire and the first and last interview were consistent with each other and there was not a remarkable difference between pre-service language teachers' pre- and post-application perceptions. However, there occurred divergent attitudes between the first and last applications of the questionnaires and interviews. These differences are laid out in the following paragraphs under various themes such as the definition of podcasts, the expectation of the podcasts integrated into course content and the advantages and disadvantages of podcasts.

When the qualitative data were analysed, from item 12 of the pre interview and item 13 of the pre and post questionnaire which sought the definition of podcasts were compared, it can be seen that there were no significant differences regarding the description of podcasting as before and after the study. The majority of pre-service language teachers consented that podcasts were a type of digital media (35.7% in the pre questionnaire, 16.1% in the post Questionnaire and 14.3% in the pre interview) and a tool to improve listening (28.6% the pre questionnaire, 22.6% in the post questionnaire and 33.3% in the pre interview). The definition of podcasts as an audio and video recording, online audio blogging and folder share, and a type of Web 2.0 tools were other commonly accepted descriptions. The positive

changes with the definition of podcasts were 7.1% of the pre-service language teachers having no idea in the pre questionnaire and this was surmounted as a consequence of the study, and 16.1% of the pre-service language teachers defined podcasts as a supplementary material for teachers in the post questionnaire.

The data analysis of item 18 of the pre and post questionnaire and item 17 of the pre interview which sought the expectations of the pre-service language teachers from the course content equipped with podcasts were inconsistent with each other. When the frequencies and percentages of these items were compared, pre-service language teachers' expectations to improve their teaching language skills was the highest rated commitment. However, there was a significant change with the expectation of obtaining an academic network as it was denoted 4.8%, in pre questionnaire whereas 21.2% in the post questionnaire which was the most frequently denoted expectation in the post questionnaire. There were also two opinions mentioned only in the post questionnaire that are important as they emerged after the application of the study. These were the expectations of the professional development and involvement in the fun factor. This idea supports the view that pre-service language teachers can enjoy the podcast applications that appeal to their interests. According to the results of Harrison et al. (2009), the majority of the learners had positive attitudes of gaining valuable knowledge and fun from using podcasts. Similarly, Kim and King (2011) and Özkan (2011) indicated that implementing podcasting and blogging in the English language learner classroom was enjoyable and beneficial, so can be preferred by the teacher candidates in their future teaching careers. In Hasan and Hoon's (2013) study which was constituted of a revision of 20 recent studies concerning podcasts, the majority of the respondents claimed podcasting was gripping in the learning environment and they had favourable perceptions about the utilisation of this technological tool.

The perceptions of the pre-service language teachers about the disadvantages of podcast use in the pre and post questionnaires and the pre and post interviews were also compared to figure out the differences experienced with the utilisation of podcasts. According to the analysis of the data, the majority of the pre-service language teachers had a common conclusion that podcasts had no disadvantages; and this result reached a higher percentage after the implementation of the study. It increased from 30.4% (pre questionnaire) to 63.6% in the post questionnaire and 57.1% (pre interview) to 60% in the post interview. There were also three positively changed perceptions. These were the accessibility problems, acoustic problems and inadequacy of podcasts. From the findings, it can be inferred that the utilisation of podcasts contributed positively to the pre-service language teachers' perceptions of podcasts.

When the findings of item 15 of the pre and post questionnaire and item 14 of the first interview which sought the advantages of podcasts were compared, it was clearly deduced that the perceptions of the advantages of podcasts were the most augmented theme after the application of this podcast-based study. There were eight different advantages indicated in the first application of the questionnaire and interview, whereas this number increased to 14 in the last application of the questionnaire. In the last application of the questionnaire, pre-service language teachers denoted that the utilisation of podcasts is a viable type of consciousness-raising technique. They also stated that it is beneficial for enhancing collaborative learning. These additional perceived advantages were noteworthy as they were strongly correlated with the qualities of constructivist learning environments. It can clearly be inferred from the results that pre-service language teachers' reflections significantly advanced considering the positive effects of podcasting within a constructivist way of learning. This finding of the study supports the commitment of Rosell-Aguilar (2007) that podcasting is profoundly interrelated with constructivism in which learners construct knowledge through active exploration, observation, processing and interpretation. The perception of the pre-service language teachers towards the positive contribution of podcasts to the improvement of listening skills did not change throughout the study and ranked within the highest percentage in both applications of the questionnaire and the interview. These findings revealed that pre-service language teachers had a strongly positive attitude towards the use of podcasts in order to improve listening skills and this

attitude was not affected by the application of a podcast-based program. This result is in line with many studies in the literature. According to the overall findings of the study of Hasan and Hoon (2013), which was the revision of the recent literature, podcasts were beneficial for listening skills in particular.

3. Discussion and conclusion

This study has depicted the utilisation of podcasts in a *Teaching Language Skills* course within a pedagogical perspective. It integrated Web 2.00 tools, namely podcasting into the course content and enabled pre-service teachers a web-based language learning platform. This was applied within a web supported platform enhanced by a learner-centred atmosphere where course participants were mostly active, exposed to peer collaboration and support as well as autonomous learning. Participants of the study were chosen as pre-service English language teachers at Cukurova University of Turkey. Interviews, questionnaires, pre-service language teachers' performances on podcast related tasks and pre-service language teachers' reflections were used as data collection tools. Both qualitative and quantitative data results demonstrated that the majority of the pre-service language teachers had a favourable attitude towards podcasting integrated into course content. All of the pre-service language teachers agreed on the benefits of podcasting to listening skills. Over 70% of the pre-service language teachers stated that podcasting had no disadvantages and that this facility provided them with the opportunity to review the course content. A vast majority of the pre-service language teachers found podcasting to be beneficial, enjoyable and effective for the improvement of all language skills (oral skills in particular) and as a supplement to the course content. According to the data collected from the performance of the pre-service language teachers with the podcast-related tasks, there was a remarkable gap between the overall performance of the first and last week. That is, the performance of the pre-service language teachers increased during the process. Most of the pre-service language teachers revealed that the peer support they received during this study enabled them to observe and better tackle occurring problems (Güler, 2014). The findings of the study displayed that pre-service teachers viewed podcasts as a supplementary tool and quite beneficial for the course review which is compatible with other studies in the field such as Abdous et al. (2009), Harrison et al. (2009), Özkan, (2011), and Pastore (2008). The results were in concordance with the constructivist theory that learning is an ongoing process of constructing and making meaning through interactions and is strongly related to perceptions and attitudes. Pre-service teachers viewed podcasting essential to better equip themselves with the skills they need to perform in their own teaching context and prepare themselves for their future careers by being aware of 21st instructional technologies. With the light of these findings, profoundly considered and prepared podcasts that appeal to the needs and interest of the pre-service language teachers should be given priority in pedagogical environment.

The findings of the study may imply that language instructors and language learners could benefit greatly from the utilisation of podcasting into methodology courses at tertiary level. This study also implies that the use of podcasts in pre-service teacher education could update teacher candidates' knowledge. Teachers who seek a practical and accessible alternative way of presenting class content can use podcasting which is a kind of entertaining class content and is attractive to language learners.

Further research is also needed to verify the permanency of the podcast use and study habits that the participants of this study obtained with regular tasks during the study. The impact of the use of podcasts in other methodology courses may also be investigated. Finally, a study consisting of two groups, one controlled and one experimental can be conducted to compare and contrast the perceptions and language performances of both groups.

Güler, S. & Özkan, Y. (2018). Podcast applications in pre-service language teacher education from a constructivist perspective. World Journal on Educational Technology: Current Issues. 10(3), 131-141.

Ethics statement

The study was undertaken in line with Cukurova University ethics procedures and guidelines as stated in the Official Paper dated on 16.06.2013 and numbered 28679.

Conflicts of Interest statement

The authors have no involvement whatsoever in any organization with any financial/non-financial interest in the subject discussed in this work.

References

Abdous, M., Camarena, M. & Facer, B. R. (2009). MALL technology: use of academic podcasting in the foreign language classroom. *ReCALL, 21*(1), 76–95.

Braun, L. W. (2007). *Listen up! Podcasting for schools and libraries.* Medford, NJ: Information Today.

Chan, W. M., Chen, I. R. & Dopel, M. (2011a). Podcasting in foreign language learning: insights for podcast design from a developmental research project. In M. Levy, F. Blin, C. Bradin Siskin & O. Takeuchi (Eds.), *World CALL: global perspectives on computer-assisted language learning* (pp. 19–37). New York, NY; London, UK: Routledge.

Chan, W. M., Chi, S. W. & Lin, C. Y. (2011b). Students' perceptions of and attitudes towards podcast-based learning—a comparison of two language podcast projects. *Electronic Journal of Foreign Language Teaching, 8*(1), 312–335.

Driscoll, M. (2002). *Blended learning: let's get beyond the hype.* IBM Global Services.

Ducate, L. & Lomicka, L. (2009). Podcasting: an effective tool for honing language students' pronunciation? *Language Learning & Technology, 13*(3), 66–86.

Edirisingha, P., Rizzi, C., Nie, M. & Rothwell, L. (2007). Podcasting to provide teaching and learning support for an undergraduate module on English. *Turkish Online Journal of Distance Education, 8*(3), 87–107.

Graham, C. R. (2006). Blended learning systems: definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), *Handbook of blended learning: global perspectives, local designs*. San Francisco, CA: Pfeiffer Publishing.

Güler, S. (2014). Podcasting in pre-service language teacher education: a constructivist perspective. Unpublished MA study. Cukurova University, Adana, Turkey.

Harris, H. & Park, S. (2008). Educational usages of podcasting. *British Journal of Educational Technology, 39*(3), 548–551.

Harrison, J., Smith, B. J. & Yates, R. (2009). Podcasting in aviation education: student's perceptions. *Journal of Aviation Management and Education*, 2–8.

Hasan, M. M. & Hoon, T. B. (2012). ESL learners' perception and attitudes toward the use of podcast in developing listening skills. *The English Teacher, 12*(2), 160–173.

Hasan M. M. & Hoon, T. B. (2013). Podcast applications in language learning: a review of recent studies. *English Language Teaching*, *6*(2), 128–135.

Hawke, P. (2010). Using internet- sourced podcasts in independent listening courses: legal and pedagogical implications. *Jalt CALL Journal, 6*(3), 219–234.

Hermans, R., Tondeur, J., van Braak, J. & Valcke, M. (2008). The impact of primary school teachers' educational beliefs on the classroom use of computers. *Computers & Education, 51*(4), 1499–1509.

Ho, B. & Richards, J. C. (1993). Reflective thinking through teacher journal writing: myths and realities. *Prospect A Journal of Australian TESOL, 8*(3), 7–24.

Hourigan, T. & Murray, L. (2010). Using blogs to help language students to develop reflective learning strategies:Towards a pedagogical framework. *Australasian Journal of Educational Technology, 26*(2), 209-225.

Kaplan-Leiserson. (2005). *Trend: podcasting in academic and corporate learning*. Retrieved from http://www. learningcircuits.org

Karagiorgi, Y. & Symeou, L. (2005). Translating constructivism into instructional design: potential and limitations. *Educational Technology & Society*, *8*(1), 17–27.

Kim, D. & King, K. (2011). Implementing podcasts with ESOL teacher candidates' preparation: interpretations and implication. *International Forum of Teaching and Studies, 7*(2)*,* 5–19.

Knight, R. (2010). Sounds for study: speech and language therapy students: use and perception of exercise podcasts for phonetics. *International Society for Exploring Teaching and Learning, 22*(3), 269–276.

Lee, M. J. W. & Chan, A. (2007). Pervasive, lifestyle-integrated mobile learning for distance learners: an analysis and unexpected results from a podcasting study. *Open Learning: The Journal of Open, Distance and e-Learning*, *22*(3), 201–218.

Li, H. C. (2012, February). Using podcasts for learning English: perceptions of Hong Kong Secondary 6 ESL students. *ELT World Online*, *4*, 78–90.

Lord, G. (2008). Podcasting communities and second language pronunciation. *Foreign Language Annals, 41*(2).

Motteram, G. & Sharma, P. (2009). Blending learning in a Web 2.0 world. *International Journal of Emerging Technologies & Society,* 7(2), 83–96.

Oblinger, D. & Oblinger, J. (2005). *Educating the net generation*. Boulder, Colorado.

Osguthorpe, R. T. & Graham, C. R. (2003). Blended learning environments: definitions and directions. *The Quarterly Review of Distance Education, 4*(3), 227–233.

Özkan, Y. (2011). Blogging in a teaching skills course for pre-service teachers of English as a second language. *Australasian Journal of Educational Technology, 27*(4), 655–670.

Pastore, R. S. (2008). Students' perceptions of podcasting in the classroom. *International Journal of Instructional Technology and Distance Learning, 5(12),* 55-62.

Philip, R. & Nicholls, J. (2009). Group blogs: Documenting collaborative drama processes. *Australasian Journal of Educational Technology,* 25(5), 683-699.

Power, T. & Thomas, R. (2007). The classroom in your pocket? *Curriculum Journal, 18*(3), 373–388. doi: 10.1080/09585170701590031

Rosell-Aguilar, F. (2007). Top of the pods: in search of a podcasting "podagogy" for language learning. *Computer Assisted Language Learning, 20*(5), 471–492.

Singh, H. (2003). Building effective blended learning programs. *Educational Technology, 43*(6), 51–54.

Solomon, G. & Schrum, L. (2007). *Web 2.0 new tools, new schools*. Eugene, OR: International Society for Technology in Education.

Thorne, S. & Payne, J. (2005). Evolutionary trajectories, internet-mediated expression, and language education. *CALICO, 22*(3), 371–397.

Wang, S. & Vasquez, C. (2012). Web 2.0 and second language learning: what does the research tell us? *CALICO Journal, 29*(3), 412–430.

Yeung, A. S., Lim, K. M., Tay, E. G., Lam-Chiang, A. C. & Hui, C. (2012). Relating use of digital technology by pre-service teachers to confidence: a Singapore survey. *Australasian Journal of Educational Technology, 28*(8), 1317–1332. Retrieved from http://www.ascilite.org.au/ajet/ajet28/yeung.html