EDUCATIONAL TECHNOLOGIES IN TEXTBOOKS: THE CASE OF IRANIAN EAP CONTEXT

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Abstract

Technological developments have been changing the English for Academic Purposes (EAP) instruction. Although there is a wide literature on (the effects of) application of various educational technologies in EAP courses, there is scarcely any literature on the inclusion of such technologies in EAP textbooks. This study addresses that gap and investigates whether and how educational technologies have been introduced or applied in the EAP textbooks used in Iranian universities. Moreover, it tries to elicit the reasons why the authors of those textbooks included or excluded such technologies. To achieve the first objective, 94 EAP textbooks from four disciplines, namely Arts, Engineering, Humanities, and Medicine, were selected and analyzed to find out whether and how these textbooks treat educational technologies. To fulfil the second objective, a semi-structured interview was conducted with 18 of the EAP textbook writers to discover their justifications regarding the inclusion or exclusion of educational technologies in the books. The results indicated that the textbooks were largely devoid of educational technologies, with the authors citing a number of reasons for not including such technologies in the books, the most important of which was their own lack of educational technology know-how. Since EAP courses are usually implemented in universities, this study suggests that introduction and incorporation of affordances provided by educational technologies in EAP textbooks can contribute to university teachers' efficacy and students' academic development.

Keywords: English for Academic Purposes (EAP); educational technologies; authors; textbooks

1. Introduction

Innovations in educational technologies have revolutionized second language (L2) learning and teaching (Otto, 2017; Salaberry, 2001; Wang & Winstead, 2016). It would not be an overstatement to say that nowadays there is a technological tool to support every aspect of L2 learning and teaching (Nushi & Eqbali, 2018). The fast-growing technological innovations have enabled L2 teachers and learners to extend learning opportunities beyond the confines of the physical classrooms, design and engage in creative and collaborative activities, bring authenticity into classrooms by incorporating materials from outside world, as well as provide

and receive (synchronous and a synchronous) multimodal feedback (see Dressman, 2020; Elola & Oskoz, 2016; Stanley, 2013). New educational technologies have also helped educators better cater for learners with special learning needs and disabilities (Roblyer & Doering, 2010).

Although there is a wide literature on the effects of utilizing technology on English as a second language (ESL) or English as a foreign (EFL) language teaching and learning (see Golonka, Bowles, Frank, Richardson & Freynik, 2014; Ürün, 2015; Wu, 2014 for a review), there are few, if any, studies that have investigated the (effects) of incorporation of educational technologies in the design of English for General Purposes (EGP) textbooks. The lack of such studies becomes even more evident when one considers English for Specific/Academic Purposes (ESP/EAP) textbooks. To the best of the researchers' knowledge, there is almost no study that investigates incorporation of such technologies in the design of ESP/EAP textbooks. Since ESP/EAP courses are usually implemented in universities, incorporation of affordances provided by educational technologies in such coursers and in the materials developed for such courses can contribute to university teachers' efficacy (e.g., Barton & Dexter, 2019; Tweed, 2013), students' academic and professional development (AlAmmary, 2012; Arno, 2012; García Laborda & Litzler, 2017; Jarvis & Pastuszka, 2008) and motivation to learn the language (Yundayani, Kardijan, Herawan, 2019).

This paper, therefore, intends to explore if and how technological technologies have been included in the texts and tasks of the EAP[1] textbooks used in Iranian university contexts. Moreover, a semi-interview will be conducted with 18 writers of those EAP textbooks to discover their justifications for including or ignoring educational technologies in their books.

2. Literature review

Application of educational technologies in the ESP/EAP context is a major line of research and a great number of studies have been carried out to investigate the effects of applying such technologies in ESP/EAP pedagogy. Dashtestani and Stojković (2016), for instance, conducted a comprehensive review of the studies that examined the effectiveness of application and integration of technologies in ESP/EAP courses. Fifty-five empirical studies published in peer-reviewed journals and books were analyzed via the technology typology developed by Golonka et. al., 2014). The authors argue that the research findings on the application of educational technologies in ESP/EAP instruction are different from those identified in the literature on using such technologies in EGP instruction. The results also showed that there would be many benefits if educational technologies (e.g., course/learning management systems, corpora and wikis) are incorporated in such courses: course/learning management systems can increase the

quality of ESP/EAP instruction and improve students' listening comprehension, the utilization of corpora in ESP courses can expand students' knowledge of specialized vocabulary and collocations, and academic communicative abilities, while application of wikis can lead to an increase in the knowledge of academic writing. They add that these technological tools could foster students' collaborative and group learning, improve their reading fluency and provide more opportunity for reflection and interaction in the part of students. Khosravani and Khoshsima (2017) conducted a study which investigated the EAP stakeholders' (i.e., instructors and students) attitudes toward using the Internet in EAP curriculum. To achieve that objective, the researchers administered questionnaires to both EAP instructors and students at a state university in Iran. The results showed that most of the students and instructors held positive views toward utilizing the Internet as one of the main instructional tools in EAP courses. There were, however, a number of teachers who did not believe that Internet applications in the classroom would make learning interesting for all students. For their disagreement, the teachers' cited reasons such as their unfamiliarity with the online resources that could best serve their instructional purposes, the difficulty of keeping track of the enormous information that are being made available on the Internet every day, and their uncertainty as how to use these resources in the classroom context. The researchers add that the teachers' unsuccessful previous experiences with the Internet applications could also have played a role in forming those negative attitudes. The results of this study indicate the importance of training EAP teachers in how to use the Internet-based technologies and providing them with pleasant experiences when using those technologies.

Ramachandran (2004) explored two ways of integrating technology into an EAP curriculum that focused on building students' writing and reading abilities. The author collected her data from two groups of students who were from different Southeast Asian countries such as China, Korea and Japan. Based on her research findings, she maintains that the teachers of EAP courses could easily integrate existing contents with the assignments and activities that involve technology. Ramachandran cites some benefits of incorporating technology in classroom teaching; these include helping students in their literary development, broadening students' exposure to current educational framework, helping students in both process and the content areas of literacy learning, promoting collaborative learning, and encouraging students to become critical consumers. Singh (2017) elicited participants' reflections on learning technologies in a practical online EAP course for teachers offered by the English Language Teaching Centre, the University of Sheffield, the United Kingdom. The course was designed to help EAP teachers feel capable and more confident about using technological tools (e.g.,

Padlet, Quizlet) in their classroom teaching. The analysis of the participant teachers' reflections demonstrated that the range of interesting technology topics, useful technology guides, weekly practical suggestions, forum discussions and interactive activities helped them make their lessons more engaging for students. The results of the study demonstrated that by incorporating educational technologies in EAP courses, teachers would be provided with new knowledge, skills and technological tools that can potentially help them try out new instructional strategies and share the outcome of their experiment with others. The findings also highlighted the pressure that faulty Internet connection and time constraints can put on the teachers.

Similarly, Onat, Kuruoglu and Adiguzel (2014) carried out a study into the use of synchronous videoconferencing (SV) as a platform to transform a traditional language course into an online one. The purpose of their research was to evaluate the reflections of eleven freshmen students taught during an EAP course via the SV platform. Utilizing a semi-structured interview with the students and taking into account factors from all technological, pedagogical and administrative perspectives, they found out that students were generally satisfied with learning through the SV platform, believing that "online learning provides learning and opportunities for [them] that may not be available in a traditional classroom setting" (p. 645). Moreover, the study demonstrated that technology by itself cannot do wonders and its use needs to be backed by pedagogical considerations and administrative support in such a way that instructors in SV classes can have more effective contribution by finding the needs and expectations of students and discovering ways to form relationship in the videoconferencing classes. The results of the research also revealed how students can enhance their autonomous learning environment and equip themselves with skills to concentrate on the lesson content in videoconferencing delivery classes.

In another study, Shrestha, Fayram and Demouy (2015) analyzed the use of mobile technologies in EAP, which is a rather new and emerging field both in EGP and ESP/EAP. Their research reports on an innovative application of mobile technologies in teaching and assessing academic English speaking skills in open and distance learning. A pilot study was conducted with a group of EAP students once they completed their course between October and December 2010. A series of activities were designed and delivered through *Talkback*®, a voice response system powered by *Learnosity* (http://www.learnosity.com). *Talkback*® allowed students to use mobile phones including smart phones, landlines, *Skype* or *OU Voice* (*iTunes* app) for practice and doing assignments. The results of the pilot study indicated that the project met most of the EAP students' expectations in terms of practicing EAP listening and speaking skills in an open and distance learning context. The match between the technological tool, the

content and the format was highlighted by numerous comments and results showed that students perceived that they had improved in skills and confidence. This study clearly showed how highly students rate the opportunities to practice listening and speaking skills. Technologies such as *Talkback*® offer options to provide transcriptions of tasks used in the module and it offers an option for students to make their answers available to all students within the website where the tool is hosted.

In the same vein, Jiboku and Idakwo (2019) confronted the state-of-the-art facilities in the teaching of academic English in selected technological institutions in South West Nigeria with a lot of problems which include large classes, facilities, inadequate time, and fundamental deficiencies of L2 learners of English. Specific technology and innovations that would help pedagogy and learning in EAP classrooms were investigated. The paper concluded that the integration of technology and innovations in EAP classrooms of technological institutions in Nigeria could improve the acquisition of necessary skills by the learners to cope with the future. The findings of the research suggest that L2 teachers must embrace, adapt and apply new technologies in their classrooms and must employ the available latest resources and technology to implant learning. Scherer, Tondeur, Siddiq and Baran (2018) also carried out a study on the relationship between teachers' technological, pedagogical, and content knowledge (TPACK) and attitudes toward technology using a structural equation modeling approach. Based on the attitudes drawn from a sample of 688 Flemish pre-service teachers in 18 teacher-training institutions, they state that there is a positive correlation between teachers' attitudes toward technology and their TPACK self-beliefs.

The literature reviewed above shows that there is a myriad of research about different aspects of technology use in the ELT (be it EFL/ESL or ESP/EAP) instruction, yet very few, if any, of those studies addressed the issue of incorporation of educational technologies in ELT, particularly ESP/EAP, textbooks. There is, thus, a need to conduct some studies to examine this issue in order to enrich the literature on ELT and technology. The present research, therefore, intends to investigate the application of technological tools and resources in the EAP textbooks taught across Iranian universities. In Iran, the Institute for Researching and Composing University Textbooks in the Humanities, generally known by its Persian initials SAMT, publishes most of the EAP textbooks used in the country's universities, and the EAP textbooks produced by this institute composed the materials corpus in the current study.

3. Methodology

3.1. The aims of the study

This study aims at answering these research questions:

1. Do EAP textbooks used in Iranian universities incorporate educational technologies in their design (i.e., reading passages and reading activities)?
2. What are the justifications of the authors of those textbooks for including or ignoring educational technologies in the design of their textbooks?

For the purposes of this study, we adopted Garrison and Anderson's (2003) definition of educational technologies as "those tools used in formal educational practice to disseminate, illustrate, communicate, or immerse learners and teachers in activities purposefully designed to induce learning" (p. 34).

3.2. Materials

Ninety-four EAP textbooks taught in Iranian universities were selected and analyzed to find out whether and how these textbooks treat educational technologies. The textbooks were from four disciplines, namely Arts, Engineering, Humanities, and Medicine. The number of units in the textbooks vary from 10 to 25 or even more. Each unit comprises two reading passages followed by reading comprehension questions, vocabulary and grammar exercises (mainly in the multiple choice format), a very limited number of writing exercises and a translation exercise. The listening and speaking skills have been ignored all together due to the policy of English language teaching in Iran which states reading is the primary skill needed by EAP students at the tertiary level of education (Atai, 2000, Atai & Nazari, 2011). These textbooks have been criticized on a number of fronts by ELT teachers and researchers (see Kiany & Khayyamdar, 2005-2006 for a review). In response to the mounting pressure, SAMT decided to revise and rewrite these books based a new template, which was first applied in writing the *English for the* [sic] *Students of Medicine* (Atai, Shoja, Kafshgar Souteh & Zolghadri, 2013). The new template is also reading-based yet it adopts a task-based approach to teaching the skill. It needs to be noted that the new template gives textbook writers a freer hand so that they can design and incorporate some speaking and writing activities in the textbooks but the listening skill is still missing in the books.

3.3. Design and procedures

To achieve the first purpose of this study, 50 percent of EAP textbooks from four discipline categories, namely Arts, Engineering and Basic Sciences, Humanities, and Medicine, were selected and analyzed by the researchers of this study. The number of textbooks were rounded up to the next number if the outcome of the 50 percent selection ended in decimals, that is, if the 50 percent of 35 books yielded 17.5, we rounded that number to 18. It should be noted that wherever available, the newest edition of the books was also examined too.

Textbook evaluation studies often use checklists or questionnaires as their research instrument (e.g. Alagha, Sahragard & Rahimian, 2015; Danaye Tous & Haghighi, 2013; Gordani, 2010; Manoochehri & Nemati, 2016; Razmjoo, 2010; Salehi, Khadivar & Mehrabi, 2015; Vera-Cazorla, 2015) but the researchers of this study could not find any checklists or questionnaires specifically designed for evaluating application of educational technologies in ESP/EAP textbooks. Therefore, they decided to draw up a list of educational technologies that could potentially introduced and included in ESP/EAP textbooks by reviewing the literature (e.g., Golonka, et al. 2014; González-Lloret, 2016; Li, 2017; Motteram, 2013; Chapelle, & Sauro, 2017; Stanley, 2013). The list was then shown to an expert in the field of educational technology to make sure that we made the right selections. The expert asked for a number of modifications and we finalized the list with 28 technological tools. However, the list does not cover the entire range of possible technological aids that can be included in ESP/EAP textbooks. It also behooves to mention that field specific technologies (e.g., Electrical Insulator, LASER in Dentistry, Speech Audiometry) were not included in the data because they are not technologies that can be used for EAP instructional purposes (see Appendix A for the list of educational technologies).

Moreover, a semi-structured interview was conducted with 18 randomly selected authors of those EAP textbooks to discover their justifications regarding the inclusion or exclusion of educational technologies in their textbooks (see Appendix B for the interview questions).

3.4. Results and findings

For the quantitative part of this research, first the two researchers independently studied the table of contents, the reading texts and associated activities (including grammar, vocabulary and translation exercises) in the selected textbooks and recorded the number of those texts and activities that included, introduced or applied educational technologies and then drew a table of frequencies. The inter-rater reliability between the researchers coding the activities, measured

by Cohen's kappa, was 0.93. The reason for such a high index was the rather low number of reading texts and activities that either introduced or incorporated educational technologies. For the very few cases that the researchers could not agree on a particular educational technology, they consulted an expert in the field of educational technology to resolve the disagreement. The qualitative interview data were thematically analyzed and incorporated into the generalized statements described under 4.2 section of this paper.

3.4.1. The quantitative analysis

Table 1 shows the raw frequencies for the number of the textbooks examined in each discipline and instances of inclusion of educational technologies in the reading texts and activities therein. It should be noted that the number of reading activities were too many to be counted so that statistic is not presented in the table below.

Table 1. descriptive statistics of the number of EAP textbooks and inclusion of educational technologies in their reading texts and activities

Disciplines	**No. of EAP Textbooks Published by SAMT**	**50% of Textbooks Examined by Researchers**	**No. of Texts Including or Introducing Edu. Techs**	**No. of Edu. Techs in Reading Activities**
Humanities	75	38	1216/12 (0.99%)	6
Engineering & Basic Sciences	66	33	1056/3 (0.28%)	3
Medicine	35	18	576/0 (0.00%)	4
Arts	9	5	154/0 (0.00%)	0
Total	185	94	3002/15 (0.50%)	13

The results seem rather disappointing; only 12 (0.99%) out of the 1216 reading passages in the EAP textbooks in the Humanities introduced educational technologies. The situation for the textbooks in the other three categories was no better; 3 (0.28%) out of the 1056 reading passages in the EAP textbooks of the Engineering and Basic Sciences, 0 (0.00%) out of the 576 reading passages in the EAP textbooks of the Medicine, and 0 (0.00%) out of the 154 reading passages in the EAP textbooks of the Arts introduced educational technologies. Putting all these

numbers together, we can see that only 15 (0.50%) reading passages introduce educational technologies. It is noteworthy that one EAP textbook in the Humanities, namely *English for the Students of Educational Technology*[2], contained 8 of the reading passages that discussed technologies and that should not come as a surprise. Examples of technologies introduced in this book are the Internet and its applications, instructional media and technologies for learning, the computers, TV and radio. The author of this textbook, however, failed to utilize any of those technologies in the design of the reading activities. It should also be noted that there were four reading passages in the *English for the Students of Media Arts II (Television, Photography, Theater)* but they barely touched on the educational aspects of these technologies and thus these passages were excluded from the data.

As for the reading activities, there were only 6 activities in the 38 EAP textbooks in the Humanities that employed educational technologies, 3 in the 33 EAP textbooks in the Engineering and Basic Sciences, 4 in the 18 EAP textbooks in Medicine and 0 (none) in the 5 EAP textbooks in Arts. Instances of such activities searching online and finding a set of specialized collocations in the discipline-relevant research publications (page 166 of *English for the Students of Engineering*) or introducing a set of links to websites and *YouTube* videos that further help students with the concepts raised in the reading passages or with the reading strategies and grammar and vocabulary items introduced in the unit (placed at the end of each unit of the *English for the Students of Economics*).

4.2. The qualitative analysis

Thirty-two (n=34) of the textbook authors were selected via stratified random sampling and invited to take part in the interview but only 25 responded positively to the invitation and agreed to take part in the interview with one of the researchers of this study. That number had to be cut down further to 18 as we wanted to interview authors who were teaching or had experience teaching EAP courses. The interviewer assured the authors that their identities would not be revealed and that the interview data would remain confidential and used for research purposes only. The authors all were all PhD holders in their respective fields and had written the textbooks either individually (single authors) or cooperatively (co-authors). Table 2 presents the authors' profile.

Table 2. The profile of the EAP textbook authors taking part in the interview

Field of study	Number of Authors	Academic Rank			Gender		EAP Teaching Experience (yrs)		
		Asst. Prof.	Assoc. Prof.	Full Prof.	Female	Male	1-5	6-10	+ 10
Humanities	6	2	3	1	2	4	2	4	1
Engineering and Basic Sciences	6	1	3	2	2	4	2	4	1
Medicine	5	1	4	0	2	3	2	2	1
Arts	1	0	1	0	0	1	0	0	1
Total	18	4	11	3	6	12	6	8	4

Abbreviations: Asst. Prof.: Assistant Professor; Asst. Prof.: Associate Professor; Full Prof.: Full Professor; Yrs: Years

The semi-structured interview was employed to support and illuminate research findings from the quantitative part of this research. The interview questions focused on authors' attitudes toward and experiences of using educational technologies in the EAP instruction in the university context. Data from the interviews were analyzed using the thematic analysis (Clark & Braun, 2006). The repeated patterns of meaning found in the transcription were coded, and then each code was linked and grouped under the same themes. The codes and themes were discussed between the two researchers until reaching agreement.

The qualitative results revealed that all but two of the authors were in favor of employing educational technologies in and out of classroom teaching and learning, including in the textbooks they used in their EAP courses. They also believed their students would be interested in using such technologies and that students in fact think more positively about technology-enhanced courses and technology-oriented professors. One of those opposing application of technologies in language teaching (a full professor, Humanities, 18 years of EAP teaching experience) said achieving the objectives of her EAP textbooks does not need any particular technologies. The other opposing author (associate professor, Humanities, 9 years of EAP teaching experience) said that most technologies are not teacher-friendly and make the teaching process complicated. Seven authors maintained that introducing educational technologies was not the purpose of the EAP textbooks or courses, as seen in the comment below made by an associate professor in Medicine with 4 years of EAP teaching experience:

> I assume the purpose of [EAP] instruction is for students to master the lingo of medical texts and improve their reading and translation skills. They can learn [how to use] the various technological tools that enhance their learning either on their own or via other supplementary

> courses. After all, neither class time nor the existing facilities allow us to attend to the technological dimension of EAP pedagogy.

The results also showed that most of the authors (15 out of 18) did not consider including educational technologies at the time of writing the EAP textbooks. They gave a number of reasons for this negligence. Nine of them (n=9) faulted the EAP textbook template (either the old or the new one) given to them by the publisher (i.e., SAMT), claiming that if the template had introduced and insisted on using educational technologies in the textbooks, they might have thought about the idea of including such technologies in the content and tasks of their textbooks. Thirteen authors (n=13), however, admitted that even if the template did require inclusion of educational technologies, they could not have done so because they do not have a solid grounding in educational technologies or their applications in EAP pedagogy. They also believed students should be trained in how to use these technologies. This finding clearly demonstrates the need for teachers and learners' professional development courses that would familiarize and encourage them to use technologies in their teaching and learning practices.

> I should admit that I did not know much about educational technologies and how to incorporate them in the design of the textbooks or even in my classroom teaching. Most of the (university) teachers of my generation are like me; they are not tech savvy. All I can do, technologically speaking, is receive and send emails, work with PowerPoint… not much else. I suppose technology suits younger teachers more… (associate professor, Humanities, 10 years of teaching EAP)

> I think students know technologies and how to use them better than us [teachers]; they learn these things quickly but I think that is true mostly about social media and networking technologies. When it comes to educational technologies, I think they, like us, need some training. (assistant professor, Medicine, 5 years of teaching EAP)

Eleven out of the 18 authors believed that lack of facilities in Iranian university classes does not allow them to employ technologies in their classroom teaching or in their textbook designing. They were quick to point out some frustrating experiences they had with the use of some basic technologies such as overhead projectors and the Internet in their classrooms. They said the experience was sometimes embarrassing and some of them even believed the repeated technological failures during teaching led to their low approval ratings at the end of the term.

> I clearly remember this one time I decided to teach the class content via Prezi. First, we could not get the laptop connected to the overhead project. After almost 10 minutes of trying, we had to ask a technical support staff member to help us out. When we did manage to get the connection right, I noticed that the speed of the Internet was low and I could not log into my account to get my Prezi slides on the screen; I had to kill some class time while we waited for better Internet connection… Once I was able to get things right and have the slides running,

> more than 30 minutes of my class time had passed and students were rather distracted and disappointed… I now use PowerPoint as it is more failure proof. The same thing would probably happen with technologies in textbooks. (associate professor, Arts, 9 years of teaching EAP)

Several other authors agreed that the experience of having to cope with technological glitches was indeed unpleasant:

> I do use technologies in my classroom teaching, mostly authentic videos, audios, PowerPoint slides, … but I have learned my lessons, I always give my students a heads up, telling them that they should expect occasional breakups and glitches when working with or presenting via technological tools. (assistant professor, Humanities, 4 years of teaching EAP)

Seven authors (six content experts and one TEFL expert) also said that the focus of the EAP textbooks is on developing and enhancing the reading skills and as such they did not lend themselves well to incorporation of technologies. This opinion is not really justified since there are many educational technologies that support L2 reading and teaching (see Cobb, 2018; Liaw & English, 2017). Six authors (five TEFL experts and one content expert), however, pointed out the SAMT's old template for EAP textbooks were traditional in nature and consisted mainly of multiple choice vocabulary and grammar items or true-false reading comprehension questions and allowed for a very limited technology use, if any at all. They also noted that when they were writing the textbooks based on the old template, technology was not as developed as it is today. Upon further analysis, however, the researchers of this study found out that some of these authors whose books reached the 10th edition were still ignoring educational technologies in their textbook design.

All authors agreed that their specific field of study could benefit from educational technologies and one is only limited by one's imagination as how to apply them in EAP instruction. Eight writers said that one of the main problems with technology is that it continuously changes and this can be discomforting because the changes can mean further workload such as reading and learning about the innovations and a change in teaching practices and pedagogies.

> Technologies are indeed beneficial for my teaching practice but there are so many of them out there that I have a hard time deciding which one to select. even when you manage to choose the right technology for your purposes, there will soon be a newer version which may contains features that require adjustments in my teaching syllabus. I hasten to add that I am not a lazy teacher; in fact, I enjoy reading and learning new things, including technological devices that help me with my teaching. The problem is that I am heavily burned with a wide range of academic social responsibilities that I can hardly take time to make the adjustments.

In addition to the reasons stated above, other reasons provided are shown in Figure 1.

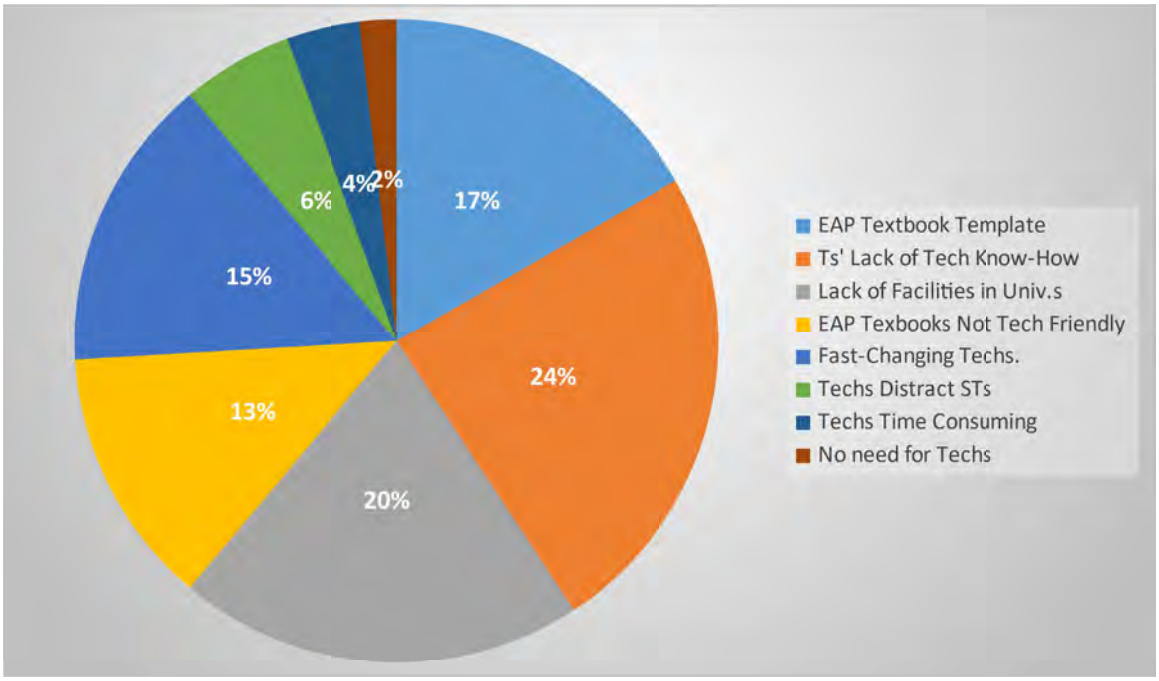

Figure 1. The EAP textbook writers' reasons for not including educational technologies in the books

Abbreviations: T: teacher; tech(s): technology(ies); STs: students; univ.s: universities

Figure 1 shows that the authors' most important reasons, in descending order, for ignoring educational technologies in EAP textbook designing were their insufficient technological know-how (24%), lack of or inadequate technological infrastructure and support of the institutions (20%), technology-deprived EAP textbook template (17%), fast pace of technological innovations (15%), the mono-skill orientation of the EAP textbooks that did not lend themselves to incorporation of technologies (13%), the distracting nature of technologies to students (6%), the time consuming nature of technologies (4%) and that achieving the objectives of the EAP textbooks was possible without the need for technologies (2%).

5. Discussion and recommendations

Textbooks are an essential part of ELT programs and one of the main instructional materials used in the language classroom (Richards, 2014). Similarly, Sheldon (1988, p. 237) states that "textbooks represent the visible heart of any ELT program". Hutchinson and Torres (1994) also contend that the "textbook is an almost universal element of ELT teaching. Millions of copies are sold every year, and numerous aid projects have been set up to produce them…. No teaching-learning situation, it seems, is complete until it has its relevant textbook" (p. 315). It is

not difficult to understand the logic behind these statements; textbooks provide language teachers with content of the course and assure a measure of structure, consistency, and logical progression in a class (Richards, 2014). Moreover, textbooks are important for learners and furnish them with the materials through which they can develop their linguistic and communicative abilities (Ahmed, 2018; Syed, Quraishi & Kazi, 2019).

As mentioned earlier in the paper, the EAP textbooks published by SAMT have been subject of many studies and researchers have examined different aspects of these books, yet the inclusion of educational technologies in them and the attitudes of the authors of the textbooks toward the issue have not be investigated in any of those studies. The current study was an attempt to fill that gap; the results indicated that the textbooks were largely devoid of educational technologies despite the fact that most of the authors of these textbooks were in favor of (though not necessarily capable of) incorporating educational technologies in their books and courses for that matter. This finding supports Dashtestani's (2019) claim that Iranian EAP teachers hold positive attitudes toward the use of technology in EAP courses. The authors cited a number of reasons for that omission, some of which have already be pointed out in previous studies regarding technology and ESP/EAP pedagogy. Flanagan and Shoffner (2013), for instance, found out that one of the factors encouraging or discouraging English teachers to integrate technologies in their instruction was their pervious (un)successful experiences with the technological tools. They also pointed out that lack of training or information on how to use educational technologies influenced the teachers' willingness to integrate technologies into pedagogy. The findings from the interviews are also in line with those of previous studies (e.g., Dashestani, 2012; Kilickaya & Seferoglu, 2013) that revealed lack of technology-based facilities, low availability of computers, and lack of educational authorities' support to include technology are among the significant barriers to utilization of technologies by teachers in their instructional practices (Dashestani, 2012; Kilickaya & Seferoglu, 2013). Al-Mahrooqi and Troudi (2014) also content that the availability of computers and e-learning professionals, and the presence of solid infrastructure (including, among other things, computers, fast Internet, secure platforms, expertise and continued teacher training), are paramount to the success of any technology integration.

Based on the findings of this research, the authors make the following recommendations:

- Of the core principles of ESP/EAP instruction is that it should be based on learners' needs and consequently all decisions as to content and method should be based on the learners' reason for learning (Hutchinson & Waters 1987). Needs analysis can include

the specification of not only the linguistic items and how to use them effectively in communication but also the technological needs and wants of the students. Students taking part in ESP/EAP courses have specific technological needs, some of which are educational in nature, that need to be addressed, either via teaching materials such textbooks or curated lessons. The researchers of the present study suggest ESP/EAP textbook writers and researchers conduct an analysis of the technological needs of students in ESP/EAP courses to tailor instruction to the students' needs (for more information, see Bocanegra-Valle, 2016). As evidenced by the findings of a study carried out in two Sudanese universities (Mohammed, 2016), the needs analysis is an inseparable part of the syllabus designing and students' voices should be heard when designing the syllabus; he adds that EAP materials should be under regular revision and modification. This point was something that was missing from the comments of the authors who participated in our study.

- Like many publishers around the world, SAMT, as a famous publisher in Iran, has its template which guides authors when writing the EAP textbooks. Our recommendation is that the publisher modifies its template in a way that it provides guidelines to authors as how to include educational technologies in the design of the EAP textbooks. Even if inclusion of technologies in the textbooks is impossible or not cost-effective, the template can guide the textbook writers to think of creating spaces where technological tools can indeed be used, spaces like textbook companion websites which can provide additional technology-supported materials and activities to enhance the teaching and learning experience for teachers and students.
- Including educational technologies in ESP/EAP textbooks and courses without providing the teachers with training as how to use these technologies will not be very effective. ESP/EAP teachers need to realize that educational technologies are part and parcel of the ESP/EAP courses nowadays; such professional trainings also help them get rid of technophobia. Research (e.g., Barton & Dexter, 2019; Tweed, 2013) has shown that those teachers who receive instruction in how to utilize technology are more successful when it comes to applying technology for educational purposes. In fact, one of the barriers to utilization of technology in classrooms is the low level of teachers' technological know-how (Flanagan & Shoffner, 2013; Dashestani, 2012).
- Training students in how to use technological tools for academic purposes should not be forgotten either. In a study aimed to investigate the purposes for which students at a Mexican university use technology, Cueto, Ramos, Garcia & Cheol (2017, p. 272)

found out that there was "a noticeable contrast between the use that students make of technologies for academic and personal aspects." This finding implies that students, left on their own, would not be interested in using technologies to learn a foreign language and that they need to be trained and encouraged to apply technologies for achieving their academic goals. It is more likely that students who have more training and instruction on educational technologies are more comfortable with utilization of those technologies for educational purposes.

- ESP/EAP textbooks should include the four language skills as integration of the four skills allows for easier application of wider technologies. In most of the EAP courses taught in Iranian universities, the reading skill receives the greatest attention (Atai & Nazari 2011); a drastic revision in the EAP policies and syllabuses is needed to allow for the integration of all the four skills and incorporation of wider range of technologies. More importantly, applications of technologies need to be supported with appropriate pedagogical approaches and strategies. Yundayani, Kardijan and Herawan (2019) demonstrate how incorporation of technologies in EAP materials through task-based approach can lead to an increase in students' motivation as they will be able to access authentic English through meaningful tasks (see González-Lloret, 2016, 2017 for more information regarding technologies for task-based language teaching).
- Adequate facilities and technological infrastructures are very important if educational institutions wish to run technology-enhanced ESP/EAP courses. As mentioned earlier, lack of technology-based facilities, low availability of computers and lack of educational authorities' support to include technology are among the significant barriers to incorporation of technology (Dashestani, 2012; Kilickaya & Seferoglu, 2013). University administrators and authorities should provide ESP/EAP teachers with access to tools and facilities which help effective utilization of technology in language teaching classes.

6. Conclusion

Although the current study has clear specificity in relation to the EAP context in Iran, it is a critically important subject for all institutions that either prepare ESP/EAP textbooks or offer ESP/EAP courses. Educational technologies cannot be ignored in ESP/EAP textbooks or courses, particularly in today's increasingly technology-oriented globalized academic community. We close this discussion by suggesting that future researchers complement this study by investigating application of technologies in ESP/EAP courses because teachers might

indeed be using educational technologies even if the textbooks they are using or the syllabuses they are following do not contain any educational technologies.

This study suffers a number of methodological limitations which we hope future research will address. The researchers of this study limited themselves to EAP textbooks that have been published by only one Iranian institute, namely SAMT. Although SAMT is indeed the main publisher of such books for Iranian universities, it is not the only publisher of EAP textbooks in Iran. In fact, many Iranian universities have their own publishing houses which produce EAP textbooks for their own in-house consumption. It might be possible that the writers of at least some of those textbooks to have followed a different strategy with regards to technology incorruption in EAP textbooks. In consideration of that possibility, we ask the readers of this article to interpret the findings with caution and not extrapolate them to all the EAP textbooks used in Iranian universities.

Acknowledgements

We would like to thank the writers of the EAP textbooks who took time out of their busy schedule to take part in the interview with us. We also would like to thank the two anonymous reviewers for their constructive comments on our paper.

Notes

[1] We prefer the term EAP over ESP for the textbooks used to teach field-specific English in Iranian university contexts.

[2] The authors of this study believe *English for Students of Educational Technology* (without the article "the") is the correct title not *English for the Students of Educational Technology.*

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Appendix A. The list of technological tools

1. (Anti)plagiarism-detecting software
2. CDs or DVDs
3. Course management system (CMS)
4. Digital teaching portfolio
5. E-books
6. E-readers
7. E-dictionaries
8. ePortfolio
9. Electronic gloss or annotation
10. Grammar checker
11. Google Docs
12. Interactive whiteboard
13. Individual study tools (e.g., Skillsoft e-learning)
14. Intelligent tutoring system
15. Learning management systems
16. Massive open online courses (MOOCs)
17. Multimedia (e.g., livecasting, podcasting, photo, video and file sharing)
18. Note-taking apps
19. Online resources (e.g., corpus, concordancer)
20. Online discussion forums
21. Pronunciation programs
22. Presentation tools (e.g., Microsoft PowerPoint, Prezi)
23. Referencing software
24. The Internet
25. Virtual classrooms
26. Wiki
27. Word processing software
28. WebQuest and the blog

Appendix B. The interview questions

1. Have you included technology in the content (reading passages or tasks) of your book?
2. Did you have technology in mind when selecting the content (reading passages) or when designing the reading tasks and activities (including grammar and vocabulary exercises)?
3. What are your perspectives toward application of technology in EAP textbooks (i.e., advantages and disadvantages)?
4. Does your discipline lend itself toward inclusion of technology in the EAP textbooks?
5. Do you think your students will like working with technology when learning English, especially EAP?
6. Do you read articles that report on the use of technology in EAP teaching/ learning?