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A Nationwide Study of Iranian Language Teachers' and Content Teachers' Cognitions and Practices of Collaborative EAP Teaching

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ABSTRACT

Many studies have addressed the issue of collaborative teaching in EAP courses; however, there is a gap in the literature concerning EAP teachers' cognitions and actual practices regarding collaborative EAP teaching, especially in contexts like Iran where EAP courses are taught by either language teachers or content teachers - subject specialist teachers - with little or no cooperation between them. Therefore, the current nationwide study explored the cognitions and practices of language teachers and content teachers at medical sciences universities in Iran regarding collaborative EAP teaching. The participants were 128 representative language teachers and 190 representative content teachers, teaching at all five types of universities across the country. The instruments included questionnaire and semi-structured interviews. The results revealed that the differences between the two groups of EAP teachers overshadow the similarities between them. The findings also disclosed inconsistencies between the two groups of EAP teachers in terms of their cognitions and actual practices. The conclusions outline implications for the EAP community throughout the world and specifically accentuate the urgent need for teacher education programs in Iran and micro- and macro-policy reforms in the Iranian EAP educational system.

Keywords: EAP; language teachers; content teachers; teacher cognition; collaborative teaching

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Introduction

English for Specific Purposes (ESP) is a dynamic approach to ELT which is subject to different definitions, conceptualizations, and interpretations (Robinson, 1991). Robinson (1991) argues that ESP is goal-oriented; that is, students do not study ESP just because they are interested in English, but because they need English for study, i.e., English for Academic Purposes (EAP) or for work purposes, i.e., English for Occupational Purposes (EOP). EAP itself is divided into two main areas: English for General Academic Purposes (EGAP), and English for Specific Academic Purposes (ESAP) (Hyland, 2006). The focus of the present study is ESAP.

Atai (2006) argues that, generally, the principles underlying EGP methodology are relevant to EAP methodology. He further observes that, theoretically, the principles of communicative methodology and EAP methodology are very much similar. Johns and Dudley-Evans (1991), however, believe that EAP methodology is unique. They favor an EAP course being run collaboratively by both a language teacher and a subject specialist teacher or adjunct EAP classes.

Despite the importance of EAP teaching, little research has been carried out regarding EAP teachers' actual teaching practices and their cognitions of collaborative teaching. The need to explore EAP teachers' cognitions and practices of collaborative teaching is particularly vital in contexts like Iran where EAP courses are taught by either language teachers or content teachers, i.e., subject specialist teachers who teach EAP, with no or at times little cooperation between them (Atai, 2006). According to Cargill, O'Connor, and Li (2012), there is no collaboration between language teachers and content teachers, especially in teaching science. They argue that in order for the collaboration to succeed, both sides need to have determination and willingness to cooperate.

Parkhurst (1990) showed that language teachers usually emphasize language, whereas content teachers address concepts related to content. Benfield and Feak (2006) argued that both language teachers and content teachers are needed in giving feedback. Besides, Tsao (2011) concluded that teachers and students believe that EAP teachers should have competency in language and content.

It needs to be mentioned that there are two ministries responsible for higher education in Iran; that is, Ministry of Science, Research and Technology and Ministry of Health and Medical Education. The current study only focused on the Ministry of Health and Medical Education.

Review of literature

Teacher cognition

An important focus of the present study is teacher cognition (TC), which is defined by Borg (2003) as "the unobservable cognitive dimension of teaching - what teachers know, believe, and think" (p. 81). As Borg (2003) showed, most of the studies on TC have been conducted in ESL contexts. Based on the teacher education literature, teachers' cognitions mold their practice and affect their actual teaching practices in the classroom (Borg, 2003).

Teachers' practices are shaped by their cognitions resulting from different sources including their experiences from teacher education programs, language learning experiences, and the context in which they study or work (Kubanyiova & Feryok, 2015). It must be noted that cognition not only shapes teachers' practices, but also is shaped by their experiences (Crookes & Arakaki, 1999).

Consequently, it is assumed that a match between teachers' cognitions and their practices in the classroom is useful and must be encouraged (Farrell & Ives, 2015).

Teachers have cognitions regarding all aspects of their work, their students, their subject matter, and their responsibilities, (Borg, 2003). When researchers speak about teacher beliefs, they mean teachers' educational beliefs, and these beliefs should not be confused with the broader general belief structure (Pajares, 1992). According to Smit and Dafouz (2012), in order to appreciate more than the surface level processes by teachers, it is vital to explore their implicit psychological frameworks.

Alexander (2012) claims that teacher beliefs can change in new teaching situations; but for this change to take place, they need to be aware of their beliefs and reflect on how appropriate they are. In line with this argument, Cabaroglu and Roberts (2000) also question the idea that teachers' beliefs are stable and resistant to change.

The present study is significant on the grounds that it tries to delve into teachers' cognitions and also practices regarding collaborative teaching in EAP courses. The results of this study would illuminate whether language teachers and/or content teachers teach EAP courses in accordance with the curriculum. The significance of this study is highlighted when we consider the scope of the enquiry and the representative samples of language teachers and content teachers taking part in the research.

Collaborative EAP teaching

Methodology is a vital stage in EAP courses where a reading course focuses more on examining factual information (Bloor, 1998). Hyland (2006) argues that the methodology and the teacher's proficiency are the most essential components of EAP instruction. He continues that principled teaching refers to the teacher's understanding of the context and selecting the special practices and materials to suit the local context. However, since most EAP programs are usually limited in time and funding, EAP instructors try to find the quickest procedure to prepare the students for the target goal (Belcher, 2006).

In order for an EAP course to be successful, the EAP teacher plays a crucial role. Teachers are required to adjust their teaching practices to students' needs - what exactly students need to do through the medium of English (Robinson, 1991), to select the most appropriate materials in order to raise learner interest in subject matter, and even cooperate with other subject specialists (Dudley-Evans, 2001). Johns and Dudley-Evans (1980, as cited in Dudley-Evans & St John, 1998) claim that it is best to approach subject specific work by collaboration. This can involve "cooperation" in which the ESP teacher finds out about the specific subject and syllabus in an academic context. Cooperation involves seeking information from the department about the content of the courses, the tasks required of students, and the expectations of the department and its related discourse community about the nature of communication in the subject (Dudley-Evans, 2001).

Collaborative teaching may involve "collaboration" in which there is some integration between specialist studies and the language. Here, the subject teacher can provide the "carrier content" for the English course. Finally, team-teaching is the third level of collaboration between the language teacher and the subject teacher where both teachers teach inside the classroom. In this study collaborative teaching refers to any of the three divisions provided by Dudley-Evans (2001).

The idea of collaboration between the English as a Second/Additional Language (ESL/EAL) teacher and the content specialist teacher has been advocated in the English language profession for a long time (Davidson, 2006). Teacher collaboration is considered to facilitate student learning, promote professional development, and improve school effectiveness (Musanti & Pence, 2010). Effective collaboration, however, is difficult to sustain (Davidson, 2006). Regarding Iran, In 2006, Atai observed that there is hardly any published document concerning the practices adopted by EAP teachers. The current study tries to fill the gap in the literature by exploring Iranian EAP teachers' - language teachers and content teacher - collaborative teaching.

Language and content

A new trend which has become popular in Europe over the last 20 years is Content and Language Integrated Learning (CLIL) where foreign language is used for teaching content (Koopman, Skeet, & de Graaff, 2014; Smit & Dafouz, 2012). This approach is in contrast with English-medium instruction (EMI) where the focus is only on content (Unterberger & Wilhelmer, 2011). In CLIL students are taught language and content simultaneously (Coyle, Hood, & Marsh, 2010). CLIL is now popular in many countries (Smit & Dafouz, 2012) and is perceived positively even among those students who are less motivated (Hüttner, Dalton-Puffer, & Smit, 2013).

Smit and Dafouz (2012) report that there have been some efforts in other parts of the world like Japan and South Africa to integrate language and content. Hüttner et al. (2013) report on the success of this approach in Australia. They found that students in CLIL classes developed better language skills in comparison with mainstream students. These students did not perform better in pronunciation and textual competence. However, as will be shown in this study, Iran's educational system has still not introduced CLIL into the EAP curriculum.

The status of EAP in Iran

In Iran, the national curriculum is silent regarding who should teach EAP; consequently, both language teachers and content teachers teach EAP courses. All university students in Iran must pass a two-credit general English course, and at least one three-credit EAP course, depending on their major (Khany & Tarlani-Aliabadi, 2016). Sadeghi and Richards (2015) report that at tertiary level, since there is no fixed syllabus, teachers can choose their own materials and syllabuses. According to Atai (2006), the most important purpose of EAP courses at Iranian universities is "to fill in the gap between the students' general English competence and their ability to read authentic discipline-specific texts" (p. 28).

SAMT which is the organization responsible for publishing books for humanities, has published limited number of books for tertiary level (Sadeghi & Richards, 2015). Mazdayasna and Tahririan (2008) observed that EAP books in Iran do not address the needs, wants, and desires of the learners, and the texts are selected based on students' related discipline, rather than on genre or discourse of the discipline.

According to Sadeghi and Richards (2015), English courses at Iranian universities focus mostly on grammar, vocabulary and reading comprehension, with little attention paid to oral communication. The teaching style is still monologic and students' opinions regarding the content and class regulations are not usually sought (Khany & Tarlani-Aliabadi, 2016). Khany and Tarlani-Aliabadi (2016) argue that the educational requirements are defined by teachers and curriculum developers in advance. They continue that classes are mostly teacher-fronted with limited student participation.

Research questions

In order to fill the gap in the literature, the present study tried to answer the following research questions:

1. What are Iranian EAP teachers' cognitions of collaborative teaching? Do Iranian language teachers and content teachers have different cognitions of collaborative EAP teaching?
2. Do Iranian EAP teachers have collaborative teaching at any stage of practicing their course?
3. What are Iranian EAP teachers' perceptions of the obstacles to collaborative teaching in Iran?
4. What are Iranian EAP teachers' perceptions of possible ways to run EAP courses collaboratively?

Methodology

Research Design

The design of the current study is mixed-method, since it uses both questionnaire and semi-structured interviews. The questionnaire, itself, is composed of Likert-Scale, multiple-choice, and open-ended items.

Participants

In order to have a representative sample of EAP teachers at medical sciences universities across the country, the latest rankings of the medical sciences universities in Iran were obtained from the Ministry of Health and Medical Education. Based on the rankings, we have the following five university types in Iran: type-1 universities (T1Us), type-2 universities (T2Us), newly-established universities (NEUs), independent colleges (ICs), and non-state universities (NSUs).

Next, it was essential to discover the exact number of EAP teachers at medical sciences universities across all university types, nationwide. The population of EAP teachers was found to be 536, including 187 language teachers and 349 content teachers. Based on the formula proposed by Krejcie and Morgan (1970), with confidence of 95% and 5% margin of error, the sample size turned out to be 125 for language teachers, and 183 for content teachers, which would make 308 EAP teachers overall. Consequently, 345 questionnaires were distributed in five clusters of universities. A total of 318 teachers, including 128 language teachers and 190 content teachers, returned the completed questionnaires. Also, 15 language teachers and 15 content teachers agreed to be interviewed by the researcher. The number of teachers who completed the questionnaires is presented in Table 1.

Table 1
The Profile of EAP Teachers Who Completed the Questionnaires across University Types

Teachers	Type	Frequency	Percent
Language teachers	T1Us	87	54.7
	T2Us	14	18.0
	NEUs	8	10.2
	ICs	7	7.8
	NSUs	12	9.4
	Total	128	100.0
Content teachers	T1Us	67	33.2
	T2Us	58	28.4
	NEUs	37	19.5
	ICs	24	14.7
	NSUs	4	4.2
	Total	190	100.0

Instruments and data collection procedures

In order to answer the research questions, a triangulation of sources and instruments was employed. A questionnaire was developed for EAP teachers. The questionnaire consisted of three 5-point items: *very little*, *little*, *somewhat*, *much*, *very much*. Moreover, it included one multiple choice item consisting of two parts; in the first part, EAP teachers were asked to choose from six options who they believe should teach EAP courses, and in the second part they were asked to write their reasons. It also included an open-ended item asking EAP teachers to write what they perceive as the major obstacles to collaborative teaching in Iran, and their solutions of making collaborative EAP teaching possible. Moreover, semi-structured interviews were conducted to explore a deeper understanding into the issues raised in the questionnaire.

Questionnaire

To develop the questionnaire, an initial item pool was compiled. Next, the item pool was given to six EAP experts to answer and provide feedback. Following Dörnyei's (2003) suggestions, they were asked to suggest improvements. After receiving feedback from the experts, the questionnaire was revised and ready for final piloting. It was piloted on a sample of 64 teachers who were similar to the target population. Cronbach alpha coefficient was estimated to be .80, suggesting a very good internal consistency reliability.

The researcher faced an arduous task of travelling to many universities to distribute the questionnaires. He also emailed the questionnaire to teachers in distant universities. In these cases, the questionnaires were sent with cover letters to sell the survey. The researcher repeated follow-up reminder emails (at least twice) and text messages to the sample to increase the response rate.

Semi-structured interviews

The researcher also conducted semi-structured interviews with each teacher in order to gain a deeper understanding of their cognitions and practices. To remove any misunderstandings, the interviews were conducted in Persian, the interviewees' first language. The interviews took 25 to 41 minutes, with a mean of 33 minutes.

Data analysis

In order to answer the research questions which were based on Likert-Scale items in the questionnaire and to investigate the significant differences between language teachers and content teachers, independent-samples t-tests were used. In order to analyze the open-ended question in the questionnaire and also the interviewees' answers, content analysis of their answers and transcriptions was conducted and the overarching themes and sub-themes were extracted (Dörnyei, 2007). The researcher asked four experts in the field of qualitative research to check the accuracy of theme extraction procedure and provide comments.

Results

The results of each research question are presented below.

EAP teachers' cognitions of collaborative teaching

For this research question, first, EAP teachers were asked to answer the following two Likert-Scale items in the questionnaire:

1. To what extent do you think there should be cooperation between the language teacher and the content teacher before the class?
2. To what extent do you agree that both the language teacher and the content teacher should attend inside the class for team-teaching EAP courses?

The results of the independent-samples t-tests revealed no significant differences between the two groups of language teachers ($M = 3.42, SD = .88$) and content teachers ($M = 3.45, SD = .99; t(316) = -.34, p = .74$, two-tailed) for item 1; and also for item 2: language teachers ($M = 2.05, SD = 1.22$) and content teachers ($M = 2.31, SD = 2.73; t(316) = -1.15, p = .25$, two-tailed)

In order to answer this research question, one multiple-choice item was also included concerning who EAP teachers think should teach EAP at university – they had six options to choose from – and the reasons they pointed out for their answers. Figure 1 shows the percentages of who EAP teachers believe should teach EAP.

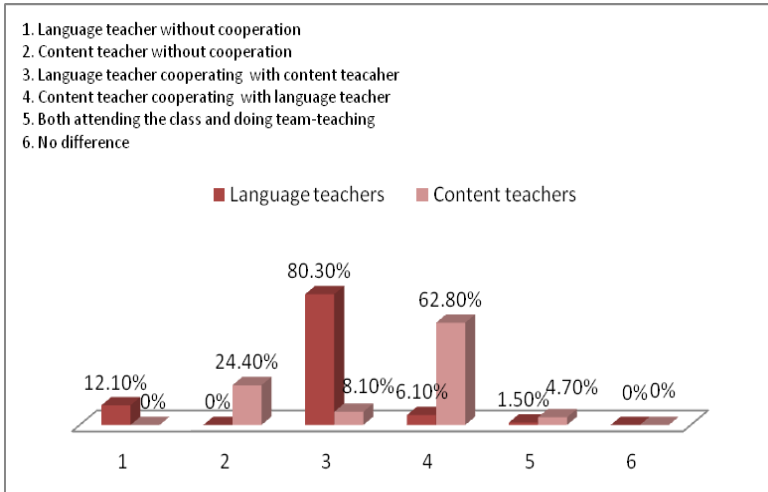


Figure 1. Percentages of who EAP teachers think should teach EAP

By analyzing the open-ended part of the item in the questionnaire, some themes were extracted as the main reasons for choosing each option. The themes are provided in Tables 2 to 6.

Table 2
Option 'a': Language Teacher Without Cooperation

Language Teachers (12.1%)	Content Teachers (0%)
Theme 1: purpose of the course is to teach English, and not content (60%)	No content teacher chose this option; consequently, no themes were extracted.
Theme 2: content teachers' insufficient knowledge of English	
Theme 3: teachers' unwillingness to cooperate	

As can be seen in Table 2, 12.1% of language teachers believed that only language teachers, without cooperation with content teachers, should teach EAP; and they provided three reasons, themes 1 to 3, for their answer. No content teacher chose this option.

Table 3
Option 'b': Content Teacher Without Cooperation

Language Teachers (0%)	Content Teachers (24.4%)
No language teacher chose this option; consequently, no themes were extracted.	Theme 1: language teachers' insufficient knowledge of technical terms
	Theme 2: language teachers' insufficient knowledge of content

Table 4
Option 'c': *Language Teacher Cooperating With Content Teacher*

Language Teachers (80.3%)	Content Teachers (8.1%)
Theme 1: purpose of the course is to learn English	Theme 1: language teachers' knowledge of English
Theme 2: content teachers' insufficient knowledge of English	
Theme 3: content teachers' lack of knowledge about English teaching theories and methodologies	
Theme 4: better results indicated by research	
Theme 5: better results indicated by experience	
Theme 6: content teachers' bad teaching; teaching only technical vocabulary and translating texts into L1	

Table 5
Option 'd': *Content Teacher Cooperating With Language Teacher*

Language Teachers (6.1%)	Content Teachers (62.8%)
Theme 1: insufficient credits for the EAP course to teach English language	Theme 1: language teachers' insufficient knowledge of technical terms
Theme 2: lack of interest in teaching EAP	Theme 2: language teachers' insufficient knowledge of content
Theme 3: content teachers' knowledge of technical terms	

Table 6
Option 'e': *Both Attending the Class and Doing Team-teaching*

Language Teachers (1.5%)	Content Teachers (4.7%)
Theme 1: complementary roles	Theme 1: complementary roles

Since no language teacher and content teacher chose option "F" (no difference), no themes were extracted for this option.

In the semi-structured interviews, a question was asked to discover who EAP teachers think should teach EAP and their cognitions of EAP teachers from the other group. All language teachers who were interviewed believed that language teachers should teach EAP. They said that the purpose of the course is to teach English and not content. One teacher said this is the norm in many parts of the world. Language teachers emphasized that students already know the content and have studied the topics in L1 in other courses. One of the respondents noted:

We and content teachers had many sessions with the educational vice-chancellor of the university. After hearing each group's reasons, the university executives officially approved that only language teachers should teach EAP courses at our university.

Four of the language teachers said there are two reasons content teachers teach EAP: 1. financial reasons, and 2. not enough courses for them to teach, so they also teach English. This is why, one language teacher stressed:

In medical colleges, EAP courses are usually taught by language teachers. In medical colleges, content teachers are too busy to teach English and financially they do not need to teach many courses including English. This is despite the fact that their English is usually better than content teachers in other colleges.

All language teachers emphasized that content teachers should not teach EAP since they are not familiar with the principles of testing and English teaching methodologies, including teaching EAP. They just know English, which is not enough. Language teachers, however, have passed ESP courses during M.A and PhD programs. So being able to teach English is different from knowing English. A respondent commented:

Content teachers are all native speakers of Persian. Are they able to teach Persian courses? Of course not! They do not have the specialty in teaching Persian. Even more specialty is required for teaching L2.

This point was highlighted by three other language teachers. One of the language teachers said he had to help a content teacher, who taught EAP, in many stages of his teaching. As an example in grammar, he noted:

The content teacher knew the difference between "neither" and "either" but he did not know how to teach the rule.

Language teachers, however, highlighted that they must know technical terms. Only one content teacher being interviewed said a language teacher should teach EAP, since the purpose is to teach English, not content. The rest believed that content teachers should teach EAP. The main reason mentioned by them was because language teachers do not know the meanings of technical terms. One content teacher expressed that language teachers have not been successful in teaching EAP and he claimed that the purpose of EAP is to teach technical terms. Except one of them, all content teachers said that they are not familiar with English teaching methodologies and they do not know how to teach English.

Some of them, however, acknowledged that if a language teacher is familiar with the basics of the discipline, he/she will be preferable to teach EAP courses. As one of them mentioned:

I do agree that just content teachers' knowing English, simply because he/she has studied in an English speaking country, is not enough. They must know how to teach English.

One of the content teachers believed that their knowing how to teach grammar would make them qualified to teach EAP. Another content teacher admitted that their weak point is not being familiar with English teaching methodologies and not knowing how to teach English. He said:

Since content teachers do not teach English based on principles of language teaching, their assessment cannot be valid. Consequently, we cannot conclude that those students, who fail, deserve to fail the course, and those who pass, deserve to pass the course. I mean some teachers may emphasize only some parts of language, while others may emphasize other parts. Some students may be motivated to take part in speaking and listening activities, whereas others may prefer reading activities. To make the point clearer, if a teacher just translates the texts to L1, those students who have other preferences might not pass the course. Or if a student is shy to speak and the teacher puts a lot of weight on speaking, he may fail the course. So we, content teachers, do not follow standardized methodologies in our teaching.

EAP teachers' practices of collaborative teaching

In the questionnaire, EAP teachers were asked to answer the following Likert-Scale item:

1. To what extent do you have any cooperation with the language/content teacher at any stage of practicing the course?

The results of the independent-samples t-test revealed no significant differences between the between the two groups of language teachers ($M = 2.61, SD = 1.26$) and content teachers ($M = 2.50, SD = 1.19; t(312) = .69, p = .49$, two-tailed). In the semi-structured interviews, all language teachers and content teachers said they have no cooperation at any stage of practicing the course.

Obstacles to collaborative EAP teaching

In the questionnaire, EAP teachers were asked to write what they think regarding the obstacles to collaborative teaching, and team-teaching. In order to go deeper into the issue, this question was also asked in the semi-structured interviews. By analyzing the written comments in the questionnaire, and the transcribed comments in the interviews, the following themes in Tables 7 and 8 were extracted.

Table 7
Obstacles to Collaborative EAP Teaching

Language Teachers	Content Teachers
Theme 1: teachers' not having enough time	Theme 1: the culture of individualization; not having the culture of cooperation
Theme 2: teachers' not believing in each other	Theme 2: teachers' not believing in each other
Theme 3: the culture of individualization; not having the culture of cooperation	Theme 3: not having language departments in many universities
Theme 4: university officials' not knowing issues related to EAP and language teaching	Theme 4: teachers' not having enough time
Theme 5: unwillingness to cooperate	Theme 5: physical distance between language teachers and content teachers; the two being in different colleges
Theme 6: ministry officials' lack of knowledge about EAP and language teaching	Theme 6: teachers' not knowing about the benefits of cooperation
Theme 7: physical distance between language teachers and content teachers	Theme 7: two teachers not being paid for one course
Theme 8: language departments' neglect to emphasize English in EAP courses	Theme 8: unwillingness to cooperate
Theme 9: teachers' not knowing about each other's timetables	
Theme 10: language teachers' and content teachers' discordance in their timetables	
Theme 11: teachers' not knowing about the benefits of cooperation	
Theme 12: not having language departments in many universities	

Table 8
Obstacles to Team-teaching in EAP Courses

Language Teachers	Content Teachers
Theme 1: discrepancies in teaching methodologies	Theme 1: discrepancies in teaching methodologies
Theme 2: causing confusion among students	Theme 2: causing confusion among students
Theme 3: discrepancies in language teachers' and content teachers' ideologies	Theme 3: discrepancies in teachers' assessments
Theme 4: large number of students preventing presence of two teachers in class	Theme 4: possibility of revealing both side's weaknesses
Theme 5: possibility of students thinking none of them can teach alone	
Theme 6: team-teaching having had bad results in many countries	

Possible ways to run EAP courses collaboratively

The questionnaire was composed of one open-ended item asking EAP teachers how they can make cooperation between language teachers and content teachers possible in Iran. The same question was also asked in the semi-structured interviews. Table 9 shows the extracted themes and sub-themes.

Table 9
Possible Ways to Run EAP Courses Collaboratively

Language Teachers	Content Teachers
Theme 1: universities planning for cooperation	Theme 1: universities planning for cooperation
Sub-theme 1: holding workshops for language teachers and content teachers	Sub-theme 1: holding workshops for language teachers and content teachers
Sub-theme 2: forcing language teachers and content teachers to cooperate before the class	Sub-theme 2: holding workshops about English teaching methodologies for content teachers
Sub-theme 3: paying teachers for cooperation	Sub-theme 3: devoting half of the EAP course for the language teacher and the other half for the content teacher
Sub-theme 4: emphasizing the role of English in EAP courses and setting up English departments in universities	Sub-theme 4: setting up English departments in universities
Sub-theme 5: increasing the number of hours for EAP courses	Sub-theme 5: having less obligatory hours to teach
Sub-theme 6: having less obligatory hours to teach	Sub-theme 6: paying teachers for cooperation
Theme 2: developing the culture of cooperation	Theme 2: developing the culture of cooperation
Theme 3: interaction between language departments and content departments	Theme 3: changing the EAP curriculum
Theme 4: creating social networks on the Internet	Theme 4: interaction between language departments and content departments
Theme 5: changing the EAP curriculum	Theme 5: language teachers teaching English to content teachers

Discussion

The main purpose of the present nationwide study was to explore the cognitions and practices of the groups of EAP teachers; that is, language teachers and content teachers, regarding collaborative EAP teaching. The results of the Likert-Scale items showed that there were no significant differences between the two groups.

In the semi-structured interviews, all language teachers believed that they should teach EAP. Similarly, all but one of content teachers stated that they should teach EAP. However, different reasons were mentioned by each group. Whereas content teachers' only reason was because they know the meanings of technical terms, language teachers mentioned the following reasons why they thought they are better choices to teach EAP: the purpose of the course is to teach English, not content; language teachers teach EAP in many parts of the world; content teachers are not familiar with English teaching methodologies; language teachers have passed ESP courses in M.A and PhD programs; and content teachers only teach EAP due to financial reasons.

Language teachers' views are consistent with Anthony's (2011) conclusion that EAP practitioners should teach EAP courses. He argues that since EAP has moved away from a product-based approach to a process-based approach, EAP practitioners do not need to be specialists in the discipline they teach. He expressed that ESP practitioners "have a vital role to play in the implementation of ESP programs even when they are not specialists in the target disciplines of their learners" (p. 3). He continued that in contexts where content teachers do not have training in teaching methodologies, knowledge of the subject they teach will take priority over knowledge about language learning and teaching.

With respect to language teachers who have passed ESP courses during M.A and PhD programs, Farhady (2006) argued that EAP courses should be taught by teachers who have qualifications in EAP. The call for wide-angled (EGAP) approaches to ESP, in contrast to narrow-angled (ESAP) approaches, is supported by many scholars (Anthony, 2011; Jordan, 1997; Swales, 1990; Swales & Feak, 2012).

Anthony (2011) presents three reasons for his support of a wide-angled approach. The first reason is the impracticality of narrow-angled approaches. The second reason he refers to is the highly variable nature of narrow-angled approaches. The variability of such approaches is also shown by Paltridge (2009). He obtained his third reason from Dovey's (2006) idea of the new knowledge economy, which means "the ability to acquire new knowledge is considered a more valuable skill than static knowledge of certain phenomenon" (Anthony, 2011, p. 14).

Gee, Hull, and Lankshear (1996) also argued that learners need to know how to learn, rather than trying to learn some knowledge which may become outdated two or three years later. Language teachers in the present study argued that they teach strategies of learning, compared to content teachers who mainly said that they teach content. Anthony (2011) asserts that content teachers are expected to struggle in teaching the language skills needed by learners. The findings of the current study revealed that content teachers did not consider teaching these skills.

Language teachers, however, affirmed that they must know the basic principles of the discipline they are teaching. Their remarks are in line with Robinson (1991) who observed that ESP practitioners "need some knowledge of, or at least access to information on, whatever it is that students are professionally involved with, for example economics, physics, nursing, catering" (p. 1).

Fourteen content teachers (93.3%) said that they were not familiar with English teaching methodologies. Anthony (2009) maintains that if EAP is viewed as product-based, content specialists will take over in running EAP courses. In these cases, as the results of the present study revealed, content teachers had no training in language teaching. Four of them (26.7%), however, acknowledged that if language teachers know the technical terms and the basics of the discipline, they would be better EAP teachers. One content teacher admitted that content teachers' weak point is being unfamiliar with English teaching methodologies.

Scrutinizing EAP teachers' cognitions concerning cooperation and collaborative teaching, in the questionnaire, the majority of language teachers (80.3%) claimed that language teachers, cooperating with content teachers, should teach EAP. Similarly, the majority of content teachers (62.8%) claimed that content teachers, cooperating with language teachers, should teach EAP. The same reasons as they mentioned in the interviews were pointed out. As the results showed, language teachers prefer cooperation more than content teachers. Lo (2014) also found that language teachers had more willingness towards cooperation. Only a small minority from each group of language teachers (1.5%) and content teachers (4.7%) preferred team-teaching.

The results of the interviews confirmed the findings of previous studies (e.g. Atai, 2006; 2013; Atai & Fatahi-Majd, 2014; Atai & Nazari, 2011) that there is no cooperation between language teachers and content teachers in Iran. However, both groups of teachers acknowledged the importance of cooperation. Teacher cooperation is also supported by other scholars, including Corrie (1995), Hargreaves (1994), Hargreaves and McMillan (1994), and Little (1990). Moreover, Stewart and Perry (2005) assert that the developments in English for Specific Purposes call for more collaboration between language teachers and content teachers.

Both groups had similar solutions in order to make cooperation possible in Iran. They put the chief responsibility on the shoulders of universities. They declared that universities can hold workshops for language teachers and content teachers, pay teachers for their cooperation, reduce teachers' obligatory hours to teach, etc. Content teachers emphasized the need to set up English departments in universities. Both groups also claimed that teachers should develop the culture of cooperation. Changing the EAP curriculum by the ministry in a way that makes cooperation possible was another important solution stressed by both groups of teachers. The importance of workshops is also resounded by Stewart and Perry (2005). They argued that workshops can develop openness and trust between the two groups.

Developing the culture of cooperation is crucial, since according to Davidson (2006), cooperation can be threatening if teachers are obliged to cooperate. Additionally, Hargreaves and McMillan (1994) warn that "collaboration can connect, but it can just as easily divide" (p. 213). Furthermore, Lo (2014) argues that successful collaboration between the language teacher and the content teacher depends on many factors, including teacher beliefs and attitudes. According to Stewart and Perry (2005), problems arise in cases where one teacher "refuses to respect the knowledge and expertise of the other" (p. 13). Effective collaboration, however, is difficult to sustain (Davidson, 2006). Stewart and Perry (2005) argue that both groups of teachers need to find ways to encounter obstacles, and estimate the benefits of good cooperation and costs of unproductive partnership.

Concerning obstacles to closer cooperation, language teachers and content teachers cited the following similar views: teachers' not having enough time, teachers' not believing in each other, and the culture of individualization (not having the culture of cooperation). With respect to the importance of sufficient time, Lo (2014) also showed that both groups of teachers in her study regarded collaboration as effective; however, they did not have the initiative and motivation to collaborate, which they perceived as time-consuming.

Language teachers also mentioned the ministry officials' lack of knowledge about EAP and language teaching, and language departments' neglect to emphasize English in EAP courses as other important obstacles. The role of English departments was also highlighted by content teachers. They pointed out that not having English departments in many universities is a major hindrance to cooperation. EAP teachers' comments, in this study, revealed the ministry's negligence in recognizing the role of English and language teaching in Medical Sciences universities.

As the results revealed, only small percentages of language teachers and content teachers preferred team-teaching. Both groups had similar opinions concerning obstacles to team-teaching, including discrepancies in teaching methodologies, causing confusion among students, the possibility that students may think none of them can teach alone, and the possibility of revealing both side's weaknesses. Dudley-Evans (1984, as cited in Dudley-Evans, 2001) describes the mistrust between two teachers in Singapore who had experienced team-teaching. He reported that the content teacher was always suspicious of the language teacher and had thought the language teacher's purpose was to evaluate the quality of the content teacher's English and report back to the institution.

Conclusions and implications

The current nationwide study investigated the cognitions and practices of Iranian EAP teachers regarding collaborative teaching. The results revealed that differences between language teachers and content teachers overshadow similarities between the two groups. The results unveiled a gap

between EAP teachers' cognitions and practices, i.e. despite acknowledging the benefits of collaborative teaching, they had no collaboration in practice.

Regarding who should teach EAP, each group claimed that it should teach EAP. Language teachers, however, put forward stronger reasons. Despite the fact that neither group did any cooperation, they both believed that the best way to teach EAP is via cooperation. Both language teachers and content teachers hold universities responsible for paving the way towards closer cooperation between language teachers and content teachers. Additionally, they both maintained that EAP teachers should develop the culture of cooperation. Teacher education programs should strive for more communication between the two groups. As Stewart and Perry (2005) assert, "administrators can facilitate this factor by providing enough preparation time, as well as regular forums for open discussion of teaching issues" (p. 13). Regarding team-teaching, both groups provided similar reasons for not preferring team-teaching.

The current study presents several implications for the EAP community. Based on the findings of this study, it seems that there is mistrust between language teachers and content teachers. This gap, according to Chen (2011) is particularly wide in Asian countries where both language teachers and content teachers teach EAP. As Stewart and Perry (2005) maintained, the nature of EAP courses demands close cooperation between language teachers and content teachers. In accordance with this argument, the participants in Cargill and O'Connor (2006) found collaborative teaching as very effective. Therefore, as was echoed by the EAP teachers across the country, the Ministry of Health and Medical Education, and universities should hold workshops to encourage cooperation between language teachers and content teachers.

EAP teachers from both groups underscored the need for a change in the curriculum in order to make cooperation between language teachers and content teachers easier. Expert EAP teachers from both groups must join in the ministry to decide on the appropriate curriculum that fits the purpose of the course. In line with the findings of this study, Atai, Babaii and Gaskaree (2018) found that EAP teachers recognized their vital role in selecting, and even developing the materials. The curriculum should consider the actual resources available to EAP practitioners and take into account cooperation between the two groups of teachers. Cargill et al. (2012) maintained that EAP teachers can use any of Dudley-Evans's (2001) levels of collaborative teaching; that is, cooperation, collaboration, or team-teaching. The researcher believes that cooperation will result in teachers' creativity. As Richards (2013) pointed out, creativity in language teaching will lead to accomplishment in language learning. Nonetheless, each group must respect each other's "expertise and professionalism" (Dudley-Evans, 2001, p. 228). Cargill et al. (2012) argue that in order for the collaboration to succeed, EAP teachers need institutional support to provide the essential resources.

Based on the results of this study, the researcher also suggests a macro reform in the EAP policies in Iran. EAP teachers should convince the ministry to introduce new regulations under which language teachers and content teachers are designated equal roles in EAP courses. The current goals set by EAP curriculum developers are biased against content teachers, and only language is emphasized. However, the paradoxical findings of the study revealed that the majority of EAP teachers (60%) are content teachers.

In order for the Iranian EAP community not to fall behind other parts of the world, including Europe (Coyle, et al., 2010; Koopman et al., 2014; Smit & Dafouz, 2012), Japan and South Africa (Smit & Dafouz, 2012), and Australia (Hüttner, et al., 2013), Content and Language Integrated Learning (CLIL) must be introduced in which language and content are given equal importance. As a result, both language teachers and content teachers will be needed (Benfield & Feak, 2006). This could lead to motivation on the part of EAP teachers to pursue collaborative teaching.

Accordingly, all members of the EAP educational system can enjoy the benefits of both language teachers and content teachers.

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