Does Engaging with Other Disciplines Work in EAP?
Scaffolding L2 Reading Comprehension of Iranian Law Students through Team Teaching

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Abstract
It is becoming increasingly difficult to ignore commitment to the educational goals defined by students’ target needs in academic contexts. To satisfy such demanding goals and to provide a more effective learner support, EAP practitioners are recently taking advantages of collaboration opportunities involving subject-area faculty members in order to enhance learning by supplying further scaffolding in learning. Accordingly, the main objective of the present study was to investigate the contributory role of team teaching in enhancing the reading comprehension of Law students in an Iranian EAP context. For this purpose, from the population of sophomore students studying law at Islamic Azad university of Isfahan (Khorasgan), three intact classes, 35 each, were selected. The first class was only taught by a language teacher whereas the second class received instruction from a subject teacher. However, the students in third class were taught based on a two-pronged approach in which a balanced cooperation between the language and subject teachers was activated. At the end of the treatment, a reading comprehension test was administered to the participants in all groups. The analysis of data revealed that the group taught by the adjunct model outperformed other groups on the reading comprehension post-test. The findings may have significant implications for EAP/ESP practitioners.

Keywords: EAP/ESP contexts, law students, team teaching, adjunct model, instructional scaffolding

INTRODUCTION
The new global professionalism in the domain of language teaching, appropriate methodology has long been at the heart of English for specific and/or academic purposes. What makes the task significant is largely dependent upon the target learners and their purposes for learning. Clearly, English for academic purposes (EAP) students
are usually adults who are already acquainted with English and are learning the language to deal with a number of educational skills and to accomplish specific subject related requirements within an academic context.

According to Hyland (2002), EAP courses differ from ordinary English as a second language (ESL) programs in several ways. Firstly, the students are studying a discipline whose principles and borderlines are defined based on the sociocultural norms of the leading members who form the particular discourse community. As such, an EAP program is closely intertwined with the analysis of needs and purposes that the learners should master in order to handle the academic functions set by their field of study and shared by the members of the discipline to which they belong. Secondly, the objectives of the instruction are primarily determined by certain factors governing the principles, environment, and the needs of the particular learners who strive to reach specific goals (Nation & Macalister, 2010). Consequently, the syllabus is designed based on the content and skills most needed by the students. As a case in point, the EAP program may focus on reading and writing skills of the students who are studying English to meet the basic conditions of the graduate work in a particular field of study (Hyland, 2006).

In reality, as Davison and Williams (2001) maintain, EAP programs integrate subject matter (i.e. content) with general/common core language teaching. Such integration is highly motivating since the learners can apply the linguistic information and skills they acquire in the EAP context to particular purposes dressed in an academic coloring. As an illustration, students studying Law are able to learn the reading, writing, and speaking skills as well as the grammar and vocabulary needed for property functioning in these skills (Jabbour, 2001).

Unsurprisingly, there is a symbiotic relationship between learners’ abilities in the subject discipline and the knowledge of English they acquire in their EAP class. Here, meaningful context (i.e., academic contexts in which language is utilized) can motivate language learning because the students can see the relevance of the EAP program to what they need to tackle in their discipline-related tasks.

It is obvious that the whole process places a considerable burden on the teachers involved in EAP classes so much so the EAP teachers should be equipped with necessary educational and professional background to function effectively in the EAP contexts. In fact, the need to be open to cooperation in order to collaborate with content specialists and receive help in handling the EAP class successfully is inevitable. Dudley-Evans and St. John (1998) support such collaboration claiming that “we feel that students need and welcome a two-pronged attack on their needs and difficulties” (p.42). Accordingly, EAP teachers must be ready to meet the demands of the course by playing a different role (Jordan, 1997). As a course organizer, they should specify the learning goals and set them based on the time defined by the instructional program. The instructional goals can successfully be identified if the teacher has previously made a careful analysis of learners’ present situation needs and the objectives they aim to attain for surmounting the target situation requirements (Swales, 1980).
As a facilitator of knowledge, the EAP teacher must build up the learners’ self-confidence and should help them to handle what Johns (2008) defines as contexts, texts, and tasks (their courses and instructors present). That is why the EAP teacher should also create a classroom atmosphere where learners are able to use their self-regulation strategies in order to solve their own problems by self-study and autonomous learning. This presupposes teachers’ awareness of assessment and monitoring techniques by which they can act as a facilitator to the learners helping them to know how much they have progressed.

A large and growing body of literature has been published on different approaches and methodologies used for teaching EAP. Unlike Richard and Rogers (1986) who define synthetic approaches as those in which the task of the learner is mastering the building blocks of language and the rules, writers like Tarone (1985), Allen (1985), and Brumfit (1954) place a higher premium on communicative abilities. In fact, they contend that classroom activities should entail realistic language use by providing the learners with ample opportunities to take part in meaningful communicative interactions.

According to Dadly-Evans and St. John (1998), one prominent approach to teaching EAP reading tends to focus on text as a vehicle of information (TAVI) assuming that extracting information accountably and quickly is superior over text-focused treatment emphasizing language details (John & Davies, 1983). They envisage an atmosphere in which teaching learning interaction allows for more student involvement and group work focusing on exploiting the links between meaning and form.

Not surprisingly, previous research has been inconsistent with regard to a proper methodology for teaching ESP/EAP. Some of the practitioners like Hutchinson and waters (1987) and Blue (1988a) suggested that all ELT methods can benefit EAP/ESP learning and that EAP teachers should focus on ESP/EAP and leave students to learn ESAP by individualized project work. Others, like Drobnic (1987), emphasize the importance of flexibility and adoptability in teachers’ utilization of methods. Alternatively, writers like Carver (1983) recommend self-directed activities focusing on contextual/situational factors and study skills techniques.

With the advent of collaborative language teaching, it is suggested that ESP/EAP teachers should be ready to engage in three levels of teamwork; namely, cooperation, collaboration, and team teaching. Cooperation is the first level where the EAP teachers should take the initiative in gathering data about the importance of the EAP course in the department and by the students (Duddley-Evans & St. John, 1997). Love (1993) maintains cooperation would arouse the general interest and enthusiasm of those involved in EAP course and sheds light on the true nature of needs.

The second level is the collaboration stage which involves the more direct working together of English teacher and the subject teacher for preparing the students to tackle particular tasks dominating their academic situation. Skehan (1980) concludes that collaboration can play a vital role in successful ESP/EAP teaching because the required input will best fit into the right linguistic level for the students.
Finally, the third level of cooperation of teamwork can be cultivated through the application of the adjunct model (Snow & Brinton, 1988; Shih, 1986). This model allows for subject-language integration in which collaborative work between English and subject teacher would highlight learners’ needs and the way(s) they should be satisfied by proper language activities.

Although the application of methodologies and approaches in teaching ESP/EAP courses has been abundant, there have been no controlled studies which accentuate the significance of cooperation, collaboration, and team teaching simultaneously. This lack is the main objective of the present study which aimed to investigate how the application of adjunct model can improve the language-subject requirements of sophomore Iranian Law students in reading EAP materials.

**METHOD**

**Participants**

From the initial sample of 125 sophomore students studying law at Islamic Azad University, Isfahan (Khorasgan) Branch, three intact classes were selected based on purposive sampling. The number of students, both male and female with their age ranging from 18 to 24, registering for the EAP course was 35, 34, and 42 respectively. To equalize the samples, the first class was taken as a reference and the additional subjects in other classes were randomly excluded so that the number of participants in each class was considered to be the same and equal to 35. The three classes were homogeneous since they had all passed the same credit units and satisfied the eligibility criteria. Table 1 indicates a summary of the participants divided into three groups.

<table>
<thead>
<tr>
<th>Table 1. Case Processing Summary of the Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>groups</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Class 1</td>
</tr>
<tr>
<td>Mark Class 2</td>
</tr>
<tr>
<td>Class 3</td>
</tr>
</tbody>
</table>

**Materials**

The EAP textbook was *English for the Students of Law* (2003). All students had to take the specialized English course in the third semester. The main objective was increasing the technical awareness of students and their reading comprehension skills. At the end of the semester, a researcher-developed Reading Comprehension Test (RCT) with five reading passage and fifty questions was administered as the post-test. The items assessed students’ knowledge of technical and semi technical words, pronoun references, domain specific collocations as well as their power of inference. The validity of the test was measured based on specialist’s opinion and its reliability was checked by
correlating it with an identical and reliable reading comprehension test prepared locally by the department.

**Procedures**

All three classes were required to take the 90 minute EAP class for 16 weeks. Two classes served as the control group were taught by separate teachers. In fact, one class was taught by an English teacher, while the other was taught by the content teacher. The third class, the adjunct class which served as the experimental group, received instruction by both English and content teachers collaboratively.

The most outstanding feature which made the adjunct class different from the control group was team teaching. Through collaborative work, the language and subject teachers took the initiative to prepare the students for particular target goals. The English teacher handles the skills common core aspects of the language. By contrast, the subject teacher focused mainly of the technicalities of the course by clarifying the content which was unfamiliar to the language teacher.

At the end of the treatment, which lasted for a full semester, both control and experimental groups participated in a multiple-choice Reading Comprehension Test (RCT) as their final exam.

**Data Analysis**

The scores on the final exam served as the data in this study. The related data analysis was carried out by the SPSS software by using descriptive data analysis, ANOVA and post-hoc tests.

**RESULTS**

It is clearly observed in Table 2 that the students in the adjunct class have outperformed the control group classes taught by independent teachers. In fact, the average performance profile of students in the experimental group is remarkably higher than those in the control classes.

**Table 2. Descriptive Statistics for the Control and Experimental Classes**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95%Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1</td>
<td>35</td>
<td>14.0000</td>
<td>1.35038</td>
<td>.22826</td>
<td>13.5361 14.4639</td>
<td>12.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 2</td>
<td>35</td>
<td>15.5143</td>
<td>1.29186</td>
<td>.21836</td>
<td>15.0705 15.9581</td>
<td>12.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 3</td>
<td>35</td>
<td>17.4857</td>
<td>95090</td>
<td>.16073</td>
<td>17.1591 17.8124</td>
<td>16.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>105</td>
<td>15.6667</td>
<td>1.86911</td>
<td>.18241</td>
<td>15.3049 16.0284</td>
<td>12.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

However, to find out whether the difference is due to the treatment and not the probable chance factors, a global analysis of variance (ANOVA) was performed. As can be seen in Table 3, there exists a significant difference between the three groups. In fact, the $F$ value is remarkably higher than the critical $t$ value in the $f$ table at $\alpha \leq 0.05$ and we can safely conclude that the adjunct method has been more effective.
Table 3. The Results of ANOVA test for Control and Experimental Groups

<table>
<thead>
<tr>
<th>Type of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>213.848</td>
<td>2</td>
<td>106.924</td>
<td>72.958</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>149.486</td>
<td>102</td>
<td>1.466</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>363.333</td>
<td>104</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To ensure credibility of the results, a post-hoc analysis was applied. Table 4 illustrates the multiple comparisons of pairs of means. It is seen that pairwise comparisons of means statistically signify the differential performance of the participants in control and experimental (i.e. the adjunct group) classes.

Table 4. Multiple Comparisons of Means for Control and Experimental Groups

<table>
<thead>
<tr>
<th>(I)group</th>
<th>(J) group</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig</th>
<th>95% Confidence Interval</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>class 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>class 2</td>
<td>class 1</td>
<td>-1.51429*</td>
<td>.28939</td>
<td>.000</td>
<td>-2.2332</td>
<td>-2.7668</td>
<td>-1.2525</td>
</tr>
<tr>
<td>class 3</td>
<td>class 1</td>
<td>-3.48571*</td>
<td>.28939</td>
<td>.000</td>
<td>-4.2046</td>
<td>-2.6903</td>
<td>-1.2525</td>
</tr>
<tr>
<td>class 2</td>
<td>class 3</td>
<td>-1.97143*</td>
<td>.28939</td>
<td>.000</td>
<td>-2.6903</td>
<td>-1.2525</td>
<td>-1.2525</td>
</tr>
<tr>
<td>class 1</td>
<td>class 3</td>
<td>3.48571*</td>
<td>.28939</td>
<td>.000</td>
<td>2.7668</td>
<td>4.2046</td>
<td>1.2525</td>
</tr>
<tr>
<td>class 2</td>
<td>class 3</td>
<td>1.97143*</td>
<td>.28939</td>
<td>.000</td>
<td>1.2525</td>
<td>2.6903</td>
<td>1.2525</td>
</tr>
</tbody>
</table>

Similarly, the polygon in Figure 1 depicts the average performance profile of group differences by illustrating the superior performance of students receiving instruction through teamwork and collaboration (i.e. the adjunct model).

Figure 1. The average performance profile of group differences

DISCUSSION

The research question in this study asked whether approaches to teaching EAP which foster cooperation, collaboration, and teamwork between language and content
teachers is more effective for improving reading comprehension skill of Iranian law students. By analyzing the data obtained from reading comprehension test administered as the final exam and comparing the outcomes for control and experimental groups, it was found out that adjunct model is pedagogically considered a superior way of teaching EAP courses because it produced certain meritorious features which foster more teacher/learner involvement and social interaction.

Clearly, EAP classes taught are either the language teacher or the content teacher performed poorly on the final exam reading comprehension post-test compared to the experimental class which was handled by the adjunct model. In fact, participants in control groups manifested a marked variability in performance concerning their reading comprehension gains.

This lack of success can be explained in terms of what Love (1993) suggests as general interest and enthusiasm reflected by content and language teachers’ cooperative work. In short, learners’ arousal in control group classes was low probably because the employed teaching approaches did not live up to the learners’ level of expectations and needs.

Another likely reason for the lower gains of participants in the control groups may be substantiated by Skehan’s FDD (1980) reasoning about the pedagogical efficacy of collaboration and teamwork. He believes that collaborative work between language and content teachers in EAP courses will bring the linguistic input closer to the required needs of the EAP learners. Coyle (2006) and Coyle et al. (2010) contend that the complementarity of language and content provides extra motivation since when the subject concepts are described along with language skills, the learners develop cognitively and are more likely to remember what they have learned (see also Coyle, Hood, and Marsh (2010).

Interestingly, the most remarkable finding in this study was the superior performance of the participants in the experimental class taught by the adjunct model. Such superiority of performance may be explained by three main reasons related to the inherent mechanism which adjunct model offers. First of all, as Dale and Fanner (2012) maintain the language teacher and the subject teacher joint efforts would enrich the meaning focused input. In general, the language teacher can monitor and support the learners’ problems with language, while the subject teacher can help and support learners’ by providing feedback on ideas or content (Lyster, 2007; Williams & Burden, 1997; Fisher, 2002).

Secondly, helping students to decipher the secrets of technical vocabulary related to discipline specific concepts enhances the learners’ language awareness (Schmih, 2010). Team teaching can lead to reciprocation of collaborative information which coincides with constructivist learning principles creating an incentive for learners to make sense out of what they need (Schmidt, 1990).

Finally, the collaboration between language teacher and subject teacher leads to affective and cognitive engagement. This type of involvement creates a psychological
readiness which is an important facilitator for progress. In fact, the content teacher provides information which reflects experiential discovery resources helping learners to exercise self-access skills for understanding particular features of the text (Tomlinson, 1994)

All in all, the cooperative and collaborative work between language and content teachers amplify brain’s processing capacity of the learners so much so they are encouraged to make full use of their mental resources for understanding a text better.

CONCLUSION

Evidently, this paper has tried to produce an account of and the reasons for the efficacy of adjunct model in teaching reading comprehension courses to the students whose major is not English. In general, the findings of the study suggest that the adjunct model relies heavily on cooperation, collaboration, and teamwork between the language teacher and content teacher. The relevance of the model for teaching EAP courses is clearly supported by the current findings. These findings enhance our understanding of the unique nature of English for Academic Purposes (EAP) courses which require a somewhat different pedagogical approach comported with traditional approaches used for general English courses.

REFERENCES


