Interdisciplinary Teacher Collaboration in English for Specific Purposes Subjects in a Thai University

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Abstract
The purpose of this research study was to investigate the roles of English teachers and subject teachers engaged in the collaborative process of interdisciplinary teaching in English for Specific Purposes subjects at a Thai university and explore the benefits and drawbacks of implementing such collaborations. In addition, students’ attitudes towards interdisciplinary teacher collaboration (ITC) in ESP classrooms were explored. Participants were English teachers, subject teachers, and students studying on ESP subjects. This research study used a mixed methods approach from four sources of data. The findings revealed the extensive roles taken on by both teachers involved in the ITCs. Roles for the English teacher involved being a lesson planner, teacher, learning organizer, and class activities designer. The subject teacher’s role was identified as a consultant or informant, supporter, monitor, and facilitator. The benefits were that an English teacher gained confidence, reduced worry in teaching ESP subjects, and received instant feedback from the subject teacher. The drawbacks were that it was challenging to balance the different schedules of both teachers and that lesson planning was time consuming. Students showed positive attitudes towards this method of teaching. They liked to study because of the enjoyable and knowledgeable activities and the teacher’s confidence.

Keywords: English for specific purposes, interdisciplinary teacher collaboration, teacher roles, students’ attitude, Thai universities

1. Introduction
1.1 Background To the Problem

As the current global economy is changing, expertise from a range of disciplines is increasingly interconnected with other different new disciplines. In higher education, the academic discipline provides the ‘structure of knowledge’ that trains and socializes the ability to carry out the task of teaching relevant to the discipline (Beyer & Lodahl, 1976). Nowadays, knowing only one discipline is not enough. An isolated and single curriculum struggles to survive; as a result, there has been a move from a conventional form of education to interdisciplinary education. Consequently, interdisciplinarity in higher education is becoming increasingly important as the world has become more connected and integrated (Davies & Devlin, 2009). The trend in education has to respond to the rapid changes occurring in the business work force. Indeed, Davies and Devlin (2009) support the perspectives that the best education provided to university students is a sound discipline-based education, with opportunities for interdisciplinarity. Therefore, it is significant for a Thai university to arrange its interdisciplinary curriculum in order to equip university students to be ready to work effectively and successfully.

Another important issue is the approach of teachers. They also need to adapt themselves to the changing labor market, otherwise, students who graduate from their universities might not be qualified for emerging job markets. This is especially true of teachers in the field of English for Specific Purposes (ESP), which has been a growing component of English language teaching in higher education. It focuses on a learner’s need to develop an understanding of specific content, knowledge, and terminology (Hutchinson and Waters, 1987). ESP is divided into two main areas which are English for Academic Purposes (EAP) and English for Occupational Purposes (EOP). English for Business Purposes (EBP), or Business English (BE), is classified as a category within EOP. This research study aimed at investigating a Business English course for learners who are preparing
to work in a business context and deal with Business English language functions and terminology (Dudley-Evans & St John, 2013). Ellis and Johnson (1994) stated that Business English is widespread in many organizations and becoming more important. The recognition of the need for businesspeople, or learners who would like to be in business corporations, has to be considered. That is why it is significant to analyze the language needs of the learners the teachers who instruct them. ESP teachers have to understand or be aware of what learners are studying. One of the teaching methods to adopt in ESP is one in which the English teacher takes the initiative to gather information from subject teachers and where both parties are engaged in a ‘collaboration’ (Dudley-Evans & St. John, 1998). However, Lee (2000) argued that this collaboration between English teachers and subject teachers can only be successful if there is a willingness to work together, patience, and an open attitude from both sides. Consequently, it is important to explore in depth how both English teachers and subject teachers learn from each other and achieve their mutual goal. It is also important to identify what roles teachers take on in this interdisciplinary teaching collaboration.

1.2 Exploring the Problem

Business English programs at Thai universities currently do not have enough specialist lecturers who are keen on both the content and language of the ESP subject. Most teachers at the university where the current study is based have graduated in English majors, not business. Additionally, they have never had an official chance to consult subject teachers before. In this way, it was deemed valuable to conduct research exploring the possibility of interdisciplinary teacher collaborations between the Faculty of General Management and the Faculty of Humanities and Social Sciences. In ESP teaching collaborations, the language teacher and subject teacher work together outside of the classroom. This is the first option of collaborative work, which is the planning of a series of classes where the language class prepares the students for subsequent subject classes taught in English (Hutchinson and Water, 1987, p. 44)

The objective of the study is to explore the process of collaborative ESP teaching between two disciplines, which are English and Business (in the areas of marketing, human resources, and banking), at a Thai university in Bangkok. It also investigates the benefits and drawbacks of this collaborative approach to teaching ESP subjects. Lastly, it explores students’ attitudes towards the teaching of ESP subjects using interdisciplinary teacher collaboration.

1.3 Relevant Literature

The following section is divided into five key topics: 1) Team-teaching collaboration principles and practices, 2) the concept of three teaching levels, 3) definitions of interdisciplinary teacher collaborations, 4) characteristics of teaching English for Specific Purposes (ESP), 5) the roles of ESP teachers, and 6) students’ attitudes.

Collaboration principles and practices are identified by Friend and Cook (2000), Welch (2000), and Taylor, Smiley, and Richards (2015). In their view, teaching collaboration involves two or more parties working together voluntarily as equal partners and sharing responsibility for positive or negative outcomes. Both parties identify and work toward a common goal. They also share the resources, knowledge, and skills of their own teaching. Both parties collaborate in a planned and formal process or, alternatively, in a more spontaneous and informal process. They could ultimately develop a community of practice.

For the concept of three teaching levels, Dudley-Evans & St. John (2013) talked about the way in which the language teacher can take the initiative in developing cooperation between departments, such as how to engage with subject teachers. They suggest that, “For subject-specific work we suggest there are three levels of cooperation: Cooperation, Collaborative, and Team-Teaching”.

Cooperation is the first stage and involves the language teacher taking the initiative in asking questions and gathering information about the students’ subject course, how English fits into their course, and what the department and students see as priorities.

Collaboration involves the more direct working together of the two sides, language and subject, to prepare students for particular tasks or courses. In collaboration the language and subject teacher work together outside the classroom. The collaboration has clear goals but also defined limits. The collaborative method aims at integrating content and language skills by the language specialist and the subject specialist monitoring of the situation at all stages. (Johns & Dudley-Evans 2015).

The final level of subject-language integration is team-teaching. It is about the actual working together in the classroom of the subject and language specialist. Successful team teaching requires considerable amount of organizational and management skills. Detailed planning is required at all stages, regular meetings have to be arranged, and potential clashes, such as those which arise as a result of differences in status, temperament or
pedagogical methods, have to be kept to a minimum.

There are several scholars who define the meaning of collaboration as a professional partnership between two or more educators who voluntarily participate and have a mutual goal. They share responsibility, accountability, and resources and expect the same outcomes of the collaboration process in the form of academic achievement. During the collaborative process, both parties address problems, promote strengths, resolve differences, and educate each other (Friend & Cook, 1990, Hamilton-Jones & Vail, 2014, Ketterlin-Geller, Baumer, & Lichon, 2015, and Richards, 2015).

Furthermore, Berg-Weger and Schneider (1998) define interdisciplinary collaboration as “an interpersonal process through which members of different disciplines contribute to a common product or goal.” Barron also said that the collaborative method is the one in which the ESP teacher and the subject specialist collaborate on all aspects of the course - needs analysis, design, teaching and assessment - but do not actually share the classroom.

There are several scholars and researchers who have defined the meaning of English for Specific Purposes (ESP). First, John Munby (1978) provided a succinct definition of English for Specific Purposes (ESP), "ESP courses are those where the syllabus and materials are determined in all essentials by the prior analysis of the communication needs of the learner" (p.2). The notion of ESP courses and communication needs are emphasized in ESP teaching.

Second, Jo McDonough (1984) suggests that ESP is a focus of language teaching activity which certainly has its own range of emphases and priorities. It is stressed that ESP is a kind of language teaching. Third, Hutchinson and Waters (1987) stated that, "ESP is an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning" (p.19). This is relevant to what Hyland (2006) mentions in that ESP focuses on the specific communicative needs and practices of particular social groups.

Another crucial point stressed by Hyland (2006), is that one of the effects ESP has had on language teaching is collaborative pedagogies. Because ESP learners need to acquire competence in particular genres and specific communicative skills along with the knowledge of their professions, this knowledge becomes the context for learning. The topics, content, and practices of the profession thus act as vehicles for teaching particular discourses and communicative skills. However, in actual fact the ESP practitioner is often a novice in these areas, so teachers frequently need to collaborate with a subject specialist, which is considered essential. There are many ways that teachers can collaborate with subject experts. The specialist can assist as an informant by giving background and insight into that particular practice to the teachers or students so they can understand the texts they use. (Johns, 1997). In this kind of collaboration, specialists can act as a consultant or be involved in a direct collaboration, helping the ESP teacher to select authentic texts, tasks, and activities (Hyland, 2006).

It is significant to review the roles of the teachers in ESP subjects. In terms of teaching practice, Chien, Lee & Kao (2008) found that the role of ESP teaching in their context was to activate the learners’ science background knowledge in English. The role of general English teaching was to build up the foundation of general English skills which include several types of training in language sub-skills, such as skimming, scanning, and making predictions through use of different genres of readings. This is similar to the present research study in that the subject teacher has to support the English teacher with regard to business background knowledge in English. Therefore, the subject teacher can share the relevant content and activities, and provide clear explanations with understandable examples.

Dudley-Evans and St. John (1998, p. 13) have contended that, “we regard ESP teaching as extremely varied, and for this reason we use the term “practitioner” rather than teacher to emphasize that ESP work involves much more than teaching”. Consequently, the roles of the ESP practitioner or English teacher in ESP courses focus on five key roles. ESP practitioners need to discharge their work as a teacher, a course designer a materials provider, a collaborator, a researcher, and an evaluator.

It is important to take attitudes into account when designing an ESP course. Students’ attitudes towards learning the second language have a considerable effect on the successful mastery of the language (Gardner 1985, 2000, Dornyei 2001, 2003). Gardner (1985) also stated that favorable attitudes tend to cause the experience of learning the language to be perceived positively. However, the term ‘attitude’ is closely related with the term ‘motivation’, especially in the concept of motivation to learn a second language (L2) since it refers to “the extent to which the individual works or strives to learn the language because of a desire to do so and the satisfaction experienced in this activity” (Gardner 1985: 10).
2. Method

The research methodology adapted in this study was used to find out teachers’ attitudes and roles toward interdisciplinary team teaching. It also sought to show the benefits and drawbacks of implementing interdisciplinary teacher collaboration into English for Specific Purposes (ESP) classes.

2.1 The Target Setting

The target university was a university under the supervision of the government in Bangkok, which had been developed from Teachers’ Colleges. The target university has two campuses and four learning centers, but the campus selected for the present study is located in Bangkok and comprises five faculties and three schools. Both the Faculty of Humanities and Social Sciences and the Faculty of Management Sciences are responsible for several programs. Business English programs fall under the remit of the Faculty of Humanities and Social Sciences, but the teaching of ESP subjects requires collaborative work from the Faculty of Management Sciences. The objective of this program is to encourage students to be able to communicate and apply their knowledge in the business field at a modern workplace effectively.

In this study, data was gathered in the second semester of the 2018 academic year; from January to May. The ESP subjects covered 15 weeks. However, the actual data collection was carried out in 6 weeks. The collaborative teaching sessions were designed to cover two full lesson plans and involved two weeks for pre-teaching meetings and post-teaching meetings. There were 2 units for each ESP subject and each unit comprised of 2 lessons. Each lesson took 3 hours. The English teacher and the subject teacher of each ESP subject collaboratively planned the lesson together in the pre-teaching meetings. Then, the English teacher who taught the English for Human Resources subject, English for Banking subject, and English for Marketing subject based on the planned lesson. The subject teacher did not take part in the actual teaching of the ESP subject. After the English teacher had taught the first unit for two lessons, a mid-teaching meeting was conducted for both English teacher and subject teacher to discuss how the English teacher had taught in the ESP class. They also discussed what and how to teach in the following two lessons.

2.2 Participants

The population and participants involved in this research study were groups of teachers and students at the target university. Teachers were comprised of two different groups: English teachers from the Faculty of Humanities and Social Sciences, and subject teachers from the Faculty of Management Sciences at the target university. The second group were undergraduate students enrolled on the Business English program at the Faculty of Humanities and Social Sciences.

The participants were voluntarily selected from the population. There were three English teachers from the English program and Business English program, and three subject teachers from the Faculty of Management Science. They participated in this study on a voluntary basis. This research study used purposive sampling as a sampling technique and aimed to describe and understand human experience (Dornyei, 2007).

The three subject teachers were assigned to teach ESP subjects which were English for Human Resources, English for Banking, and English for Marketing. Then, each of them was paired up with an English teacher in order to teach collaboratively for two units, from each course, within four weeks. During the first four weeks of the second term of the academic year 2018, an English teacher (from the Faculty of Humanities and Social Sciences) of each ESP subject was the one who taught the focused lessons in the classroom with assistance and collaboration from a subject teacher (from the Faculty of Management Science).

The students who were participants of this research study were first-year and second-year students in the Business English program at the Faculty of Humanities and Social Sciences, who had enrolled on the ESP courses during the second semester of the academic year 2018. There were 37 students enrolled in English for Human Resources, 35 students enrolled in English for Banking, and 34 students enrolled in English for Marketing. All ESP subjects during the research study were taught by the English teachers, using the collaborative planned lessons with a subject teacher.

2.3 Research Instruments

For the purposes of assessment validity on the impact of interdisciplinary teacher collaborations on the ESP courses in this research study, the use of triangulation was central. Therefore, four main instruments were used for data collection, consisting of interdisciplinary teacher collaboration meeting observations, classroom observations, focus group interviews, and a students’ attitudes questionnaire.

This research study used classroom observation which applied a non-participant observation approach. The ESP
classes would be observed by the subject teacher, the researcher, and the inter-rater in order to investigate the content, class activities, students’ performance, teaching methods, teaching plan implementation, classroom management, and the evaluation. There were three ESP subjects (English for Human Resources, English for Banking, and English for Marketing) that each English teacher was responsible for teaching after it was collaboratively planned with a subject teacher.

The interdisciplinary teacher collaboration meetings would be conducted three times (pre-teaching meeting, mid-teaching meeting, and post-teaching meeting) using different observational checklists for each meeting. This was because the observations were based on a timeframe of interdisciplinary teacher collaboration, which had three stages (planning – pre-teaching meeting, implementation – mid-teaching meeting, and evaluation – post-teaching meeting). Data from these meetings was collected by using a participant observation approach because the researcher moderated, monitored, and observed what was happening between the English teacher and the subject teacher. The observations aimed to evaluate the roles of the English teacher and the subject teacher, the meeting dynamic, the interactions between teachers, the overall atmosphere of the meetings, any lesson plan adjustment, the decision-making processes, the willingness to collaborate, and the forms of communication used in these three meetings.

The framework for interdisciplinary teacher collaboration meeting observation used in developing the meeting observation checklists was adopted and adapted from Hord (1981). This was based on a definition of collaboration which involves joint planning, implementation, and evaluation among collaborators, and which recommends that interdisciplinary teachers engage in a process of collaborative inquiry that consists of four cyclical, ongoing steps of dialogue, decision-making, action, and evaluation focused on a shared purpose or mutual learning objectives of ESP subjects (Gajda and Koliba, 2008; Goodlad Mantle-Bromley and Goodlad, 2004).

2.4 Data Analysis

For data analysis of both classroom observation checklists and meeting observation checklists, the researcher adopted and adapted from Torrents et al. (2010) and Konstantinidou and Zisi (2017) who used behavioral checklists with actual frequency counts.

The focus group interview was conducted with all six teachers (three English teachers and three subject teachers). The focus group interview data complemented the classroom observations and the meeting observations. The objective of the focus group interview was to find out how an English teacher and a subject teacher collaborate in teaching ESP subjects, and the impacts of interdisciplinary teacher collaboration on the lesson planning.

For data analysis of the focus group interview, content analysis would be applied. The content was analyzed for themes and recurring patterns of meaning, according to Strauss and Corbin’s coding procedure. It looked into the frequency and variety of the messages communicated (Strauss & Corbin, 1990, 1998).

The students’ attitude questionnaire was developed to meet the research objectives and the items were designed in line with the literature review. The questionnaire contained factual questions (certain facts about the Business English students) and attitudinal questions (what the students think, covering attitudes, opinions, interests, etc.).

Data analysis of students’ attitude questionnaires was completed using descriptive statistics. Subsequently, it was presented in the form of tables and explanations in accordance with each section of the questionnaire.

3. Results

To answer the first research question - to what extent do English teachers and subject teachers collaborate in English for Specific Purposes subjects? The following section reports the results from the interdisciplinary teacher collaboration meetings, the English for Specific Purposes classroom observations, and the focus group interview. It is divided into three stages which are (1) First Stage: Planning, (2) Second Stage: Implementation, and (3) Third Stage: Evaluation as shown in the figure 1.
English teachers and subject teachers had different roles throughout three stages while collaborating in teaching ESP subjects. In the planning stage, English teachers’ roles were sharing unit objectives, presenting classroom activities, organizing students’ learning, verifying ESP contents and vocabulary, and sharing language competency issues. Then, the subject teachers played the role in this interdisciplinary teacher collaboration by reaffirming unit objectives, commenting on classroom activities and visual aids, acting as a consultant and supporter, clarifying ESP content and vocabulary, sharing business experiences and elaborating on the business content.

For the second stage, implementing stage, English teachers taught and subject teachers observed. There were more English teachers’ roles during this stage than other stages. English teachers’ roles were raising students’ awareness of ESP subjects, presenting and explaining content, using examples and illustrations in order to clarify difficult ideas, summarizing major points of the content, teaching according to the lesson planned with a subject teacher, using classroom activities relevant to the content, and asking students some questions about ESP content and vocabulary. Then, subject teachers’ roles were also acting as a commentator on the content and classroom activities and a consultant, correcting ESP teaching of an English teacher, and sharing direct experiences relevant to the subject matters.

Finally, the last stage – evaluation stage, it focused on assessing quality of teacher collaboration. English teachers played roles in making changes as a result of team decision-making, covering the content, class activities, practices, and student performance as planned with subject teachers from the earlier stages, and improving instructional practice and cultivating students learning. Then, subject teachers played roles in providing feedbacks, and giving complements to the English teachers.

Furthermore, another result emerged from implementing interdisciplinary teacher collaboration during three stages showed the benefits and drawbacks as it displayed in figure 2.
The results expressed the benefits of implementing interdisciplinary teacher collaboration in ESP subjects in five areas. Firstly, time saving in searching for the meanings of vocabulary. Secondly, English teachers received instant feedbacks from subject teachers. Thirdly, English teachers gained confidence and reduced worry in teaching ESP subjects. Fourthly, both English teachers and subject teachers learned from each other. Lastly, subject teachers got influence on teaching from English teachers. On the other hand, there were four areas of drawbacks which were time consuming in preparing the ESP lessons for English teachers. Second, the textbooks of these ESP subjects were fixed and unfamiliar content for English teachers. Third, there were time constraint and it was different schedule between an English teacher and a subject teacher. Therefore, it was sometimes difficult to arrange the meeting schedules.

To answer the second research question - what are the students’ attitudes toward interdisciplinary teacher collaboration?, the results from the students’ satisfaction questionnaire illustrated the opinions of the students in a Thai university toward interdisciplinary teacher collaboration between English teachers and subject teachers in ESP subjects in the areas of course objectives, content, teaching approaches (delivery), classroom activities, and teacher behaviors.

First, the students’ attitudes toward interdisciplinary teacher collaboration in the area of course objectives showed the positive attitudes and were not much different of students’ attitude among all three ESP subjects. When both English teacher and subject teacher collaborated in planning the lesson, they shared the common goals of this ESP course and discussed the learning objectives of each unit in the preteaching meetings.

Next, in the area of the content, it showed the positive attitude on the teachers’ enthusiastic about the subject matter in English for Human Resources which was higher than another two ESP subjects. For teaching approaches or delivery, the students agree with all areas of teaching approaches in English for Human Resources subject more than the other two subjects. Students had the highest positive attitude toward the teacher’s ability to present and explain content clearly in English for Human Resources because the English teacher understood the content clearly and consulted a subject teacher on the unclear issues.

For classroom activities, the English for Human Resources subject has the highest mean scores of every aspect in classroom activities. Students’ had the highest attitudes toward the relevance of the classroom activities with the content and mainly focused on the linguistic knowledge among all three ESP subjects. In the last area – teacher behaviors, students had the highest positive attitude on an English teacher’s confidence in subject matter of English for Human Resources among all three ESP subjects.
4. Discussions

Overall discussion, English teachers and subject teachers collaborated well in teaching English for Specific Purposes subjects by following the stages of joint planning, implementation, and evaluation. They had mutual goals, the course objectives, that both of them had agreed on. As Hord (1981) stressed mutual goals are critical to collaboration. When they collaborated, they have to work together on shared planning, implementation, and evaluation toward one or more common goals.

During the planning stage, the areas observed were divided into three topics which were (1) establishing a team, (2) sharing the vision, and (3) delegating tasks and responsibilities. Both English teachers and subject teachers shared the course objectives, which were prepared by the English teachers. English teachers planned the content, classroom activities, and student assessment with support from subject teachers. The English teachers sought assistance from subject teachers as their primary sources of information on the content. This is relevant to a research study conducted by Barry, Daughtrey, & Wieder (2009) who stated that support, specifically from peers, was important to them to help with their classroom practice. However, less complicated content would make an English teacher understand the subject matter better than more complicated content. It seemed clear that assistance from subject teachers played a vital role in English teachers’ lesson preparation for ESP subjects. This increased the English teachers’ confidence in teaching ESP classes.

In the second stage, implementing, both English teacher and subject teacher conducted collaborative teaching in the ESP courses as planned. English teachers taught ESP classes with confidence. They could implement what they had consulted with subject teachers from the pre-teaching meeting into the ESP classrooms, especially concerning the vocabulary. This was also demonstrated in the classroom: the students saw the English teachers’ confidence in the subject matter while teaching them. This was also apparent during the consultations following the classroom observation: the observers could obviously see the English teacher’s confidence in the classroom. However, the content in some ESP subjects was complicated and difficult for English teachers to understand in a limited period of time. The English teacher would sometimes make a mistake in explaining technical terms in the ESP classroom. Therefore, the subject teacher could play as a commentator, corrected and gave feedback on that issue during the mid-teaching meeting. Then, the English teacher would verify the definition of technical terms to the students in the following class. However, in ESP subjects that were not too complicated, the English teacher could teach without problems or any hesitations.

The last stage, evaluation, was a good place for subject teachers to observe English teachers’ teaching approaches and to learn how to deliver English skills in ESP subjects. Both English teachers and subject teachers accepted that they could learn from each other. English teachers gained knowledge in the subject matter and confidence in teaching ESP subjects. At the same time, subject teachers learned teaching approaches and classroom activities in teaching English skills. In addition, results from the focus group interviews of three English teachers and three subject teachers revealed: (1) the benefits of interdisciplinary teacher collaboration, (2) the challenges of using a textbook, (3) the variation in teaching styles, and (4) the drawbacks of interdisciplinary teacher collaboration.

From the viewpoint of students enrolled in the three ESP subjects, the students’ attitudes toward interdisciplinary teacher collaboration show that class activities and assignments are consistent with the course objectives and also relevant to the content. Most students gained knowledge in business content from studying with English teachers. The students also noticed that their English teachers were enthusiastic about the subject matter. In addition, English teachers were able to cover both language issues and content issues emerging from the three ESP subjects. The most important factor was that students realized that English teachers had greater confidence in teaching these ESP subjects after collaboration with subject teachers. Some students preferred to study with an English teacher more than a subject teacher because they had fun with class activities. Another reason was that the English teacher simplified the content for them and used easy English. The students could understand better. However, in all three ESP subjects, some students said the same thing that the English teacher taught too fast. It was possible that all English teachers used English as a medium in teaching, so the students might not catch what the English teachers taught in the classroom.

5. Conclusions

Utilizing interdisciplinary teacher collaboration in a Thai university, an English teacher and a subject teacher has to agree on their mutual goal or the learning objectives of their subject. In the present study, the English teacher gained confidence in their knowledge of the subject matter, and saved time searching for content and vocabulary. In addition, the subject teacher gained more awareness of skills used for teaching English. In this ESP subject, both English teacher and subject teacher took on the role of collaborator. They worked in partnership sharing
their own expertise. A key role of the English teacher in this interdisciplinary teacher collaboration is as a learning organizer as they are the principal person who arranges classroom activities and designs the lesson, which can be shared with the subject teacher in interdisciplinary teacher collaboration meetings. The subject teacher takes on the role of a consultant, sharing her knowledge and experience with the English teacher in the meeting.

This interdisciplinary teacher collaboration implemented in ESP subjects is also beneficial to the students in many areas. Students gain both knowledge in the subject matter of the ESP course and English skills, such as academic reading skills. They learned from attending classroom activities how to better focus on both linguistic knowledge and subject matter. The authentic media or visual aids that the subject teacher suggested to the English teacher to apply in the ESP classroom helped students to understand the content better. Consequently, implementing this interdisciplinary teacher collaboration between the English teacher and the subject teacher in ESP subjects should be included in ESP programs in many more Thai universities.

Overall, the findings presented here can be used as a basis for planning action to enhance interdisciplinary teacher collaboration between an English teacher and a subject teacher. They lay the groundwork for conversations about ESP instruction across disciplines. If these kinds of conversations continue over an extended period time, there will be a shared history of engagement and learning between English teachers and subject teachers that can lead to new modes of collaboration in ESP instruction at universities in Thailand and beyond.

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