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A Development of  
Sports English Course Based on  
Project-Based Learning and  
Kinesthetic Learning Activities

# 基于项目型教学的动觉学习活动 在体育英语教学中的应用研究

刘凤钦 / 著



北京交通大学出版社  
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• 北京 •

## 内 容 简 介

本研究采用研究与开发的方法,在体育与运动科学专业 150 名本科学中随机抽取 30 名进行调查,通过访谈、前测、后测和问卷调查等形式收集数据,并运用描述性统计和配对样本 *t* 检验进行数据分析。研究结果表明,将项目型教学方法下的动觉学习活动应用于体育与运动科学专业本科生的英语课程教学,有助于培养其在体育科学领域的英语应用能力。

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# 前 言

自第二次世界大战结束后奥林匹克运动的复兴,国际体育事业的迅速发展促使世界各国加强了体育专业人才的培养,同时对运动员及体育事业工作人员的国际交流能力也提出了更高的要求。英语在主要国际组织或会议上是必要语言之一,因此许多母语为非英语的国家都非常重视体育人才的英语语言能力培养。当前国际体育和艺术文化交流越来越频繁,体育专业学生的外语能力亟待提升。国外体育专业英语教育的发展有其独特的环境和方式,而在英语运用能力培养方面大都结合专业特点和个体差异开展语言学习训练。我国高校自扩大招生以来,生源的英语水平参差不齐。众多专业特长生源,尽管有着专业方面的优势,然而普遍欠缺扎实的英语语言功底。体育、艺术等专业的学生英语基础知识薄弱、课堂参与与积极性不高,并且由于专业训练等原因其课后学习时间投入较少,这已成为许多高校部分英语教师在教学过程中所面临的主要问题。

根据 Fleming's VARK 学习模式分类,动觉学习是学习类型的一种,它适用于喜欢运动或抽象思维活跃的人群。Oxford 和 Anderson 的研究表明,动觉学习活动能够有效提高动觉学习类型学习者的学习效果。本研究根据多元智能理论,结合体育专业学生学习的特点,将动觉学习活动应用于大学英语教学当中,同时在教学过程中采取以学生为主体的项目型教学方法,帮助学生积极、主动参与英语课堂学习和课外自主学习。本研究采用研究与开发的方法,在体育与运动科学专业 150 名本科学生中随机抽取 30 名进行调查,通过访谈、前测、后测和问卷调查等形式收集数据,并运用描述性统计和配对样本 t 检验进行数据分析。具体过程分为 5 个阶段:(1)对体育与运动科学专业本科学生

的学习需求进行分析；(2) 确立课程设计开发的原则；(3) 设定教学目标、目的和序列的内容；(4) 设计课堂教学活动形式；(5) 评估在体育与运动科学专业本科学生的英语课程中运用动觉学习活动的教学效果。研究目的包括：(1) 在项目型教学方法下通过开发、利用动觉学习活动，对体育与运动科学专业本科学生的英语课程进行教学；(2) 探讨和评估在体育与运动科学专业本科学生的英语课程中运用动觉学习活动的教学效果；(3) 在项目型教学方法下通过开发、利用动觉学习活动开展教学后，调查和研究体育与运动科学专业本科学生的学习态度。通过 16 周的学习，30 名教学实验参与者的英语成绩由前测平均分 29.17 提升到后测平均分 35.10；这些参与者表示愿意在项目型教学方法下通过动觉学习活动进行英语学习。研究结果表明，将项目型教学方法下的动觉学习活动应用于体育与运动科学专业本科生的英语课程教学，有助于培养其在体育科学领域的英语应用能力。

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作者

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## Abstract

The purposes of this study are: (1) To develop an ESP course using kinesthetic learning activities through a project-based learning approach for sport science undergraduates; (2) To evaluate the effectiveness of using kinesthetic learning activities through a project-based learning approach after the students have taken the ESP course; (3) To study the attitudes of the sport science undergraduates toward using kinesthetic learning activities through a project-based learning approach. This study adapts a research and development approach. Thirty students were selected by cluster random sampling from 150 third-year undergraduates enrolled in English for Exercise and Sport Science at Burapha University, Thailand, in the second semester of the academic year 2010. The data were collected through interviews, pretest, posttest and questionnaires, and the descriptive statistics and paired-samples *t*-test were chosen to analyze the data.

The results showed that developing kinesthetic learning activities through a project-based learning approach had five phases: (1) to analyze the needs; (2) to decide the principles; (3) to set goals, objectives and the sequence content; (4) to design the activity format; (5) to make assessment of kinesthetic learning activities through a project-based learning approach in 16 sessions. The mean scores of the posttest increased from 29.17 in pretest to 35.10 in posttest; and the participants held a positive attitude towards using kinesthetic learning

activities through a project-based learning approach in an ESP course. From the data analysis, it can be seen that these learning activities could help participants improve their English proficiency in the sport science field.

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# Chapter 1

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## Introduction

This study adopts a research and development approach for the course of English for Specific Purpose (ESP) using a series of kinesthetic learning activities through a project-based learning approach designed for sport science undergraduates in Burapha University, Thailand. There are five parts in this study. Chapter One is a general introduction about the background information, the research rationales, the research questions, the research purposes and the research significance. Definitions of related terms are given in the final part of this chapter.

### 1.1 Background of the Study

As an international language, English has been one of the most widely used languages in the world, and therefore it is doubtlessly important to learn it well. A lot of studies have been carried out in terms of teaching and learning English for specific needs, and ESP researches have been



extensively conducted over the past ten years. In addition, various curriculums have been designed for ESP education. With more and more ESP courses being developed for undergraduates of different majors, many universities in Thailand formulate policies in favor of these courses. Specifically, English for Exercise and Sport Science is a course aimed at providing undergraduates who major in sport science with the integrated skills to grasp as well as to gain a deep understanding of the core concepts in sport science, which is helpful and necessary for them to keep pace with the development in sport science and to expand their specific knowledge in this discipline. For instructors and course planners of ESP, it is enlightening to design effective ESP courses based on kinesthetic learning activities to help sport science undergraduates improve English efficiency and hone their expertise.

## 1.2 Rationales of the Study

The Faculty of the Sport Science at Burapha University aims to cultivate students with creativity and to equip them with a thorough knowledge and a standardized-level ability of doing research in this discipline, to provide academic service to society, to promote art and culture in exercise and sport, and to take care of people's well-being. The academic curriculum system of Burapha University requires all third-year undergraduates from each faculty to attend ESP courses. Third-year undergraduates studying in the Faculty of Sport Science at Burapha University should take several ESP courses, including English for Exercise and Sport Science I, English for Exercise and Sport Science II. Each of these courses is assigned 2 credits. For first-year undergraduates in the Faculty of Sport Science at Burapha University,



they need to take general English courses. Most of English textbooks that sport science undergraduates use are introduced from abroad, in particular, from the United States and England. They read these textbooks usually with the aid of Thai translation, but still most of them feel that it is difficult to grasp some of the concepts expressed in original English. However, document review and interviewing show that the faculty has not written or developed its own English textbooks suitable for those undergraduates. Therefore, it is essential to develop ESP courses and corresponding textbooks. Moreover, it is expected that those graduates who major in sport science should be able to use English for communication focusing on topics of exercise and sport science, because most of them are willing to work in the area of health and fitness after they graduate. The main sport-science-related professional careers are: fitness trainers, coaches and sports trainers for those majoring in sport science; sports magazine editors and sports journalists for those majoring in sport mass communication; employees working in sports associations and institutes of sports research for those majoring in sport studies. All of the above professional careers require students not only to have knowledge in the professional fields but also to be competent in using English for communication. But the fact is that most of them are not so fluent in English and have difficulty in fully understanding the interlocutor in real communication situation. Moreover, they are reluctant to use English for communication when they are participating in the process of learning English.

The necessities of developing kinesthetic learning activities for undergraduates who major in sport science include the following two aspects. On the one hand, kinesthetic learning activities are a pedagogical tool of organizing English teaching-learning classes, and



are particularly related to sport science undergraduates' learning styles. Evidently, there are a variety of classroom activities for English teaching, but few are tailored for the specific needs of students. The instructors have to create the types of activities by themselves. According to the aptitudes of sport science undergraduates and their learning styles, the kinesthetic learning activities through a project-based learning approach are created to better meet their needs. Such activities can increase their motivation to learn and use English in enjoyable environments and authentic situations. On the other hand, according to Fleming's (1987) VARK model (learning style), which is one of the most common and widely-used categorizations of various types of learning styles, a person with kinesthetic intelligence, is well-coordinated, has adept physical and motor skills, and is able to use that coordination to communicate. People with kinesthetic intelligence usually succeed in careers that require mobility such as surgeons, athletes, architects, gardeners, and actors (Leite, Marilla & Yuying, 2009). Most of sport science undergraduates prefer taking physical actions and keep the body moving in the learning process. Moreover, compared with students of other majors, most of undergraduates from the Faculty of Sport Science are more physically active. They prefer showing their competitiveness, agility and intelligence through physical activities. Even when they are in classroom, they do not like sitting still, but tend to learn through a more physically active way. Last but not the least, project-based instruction allows instructors to teach the four core English language skills without losing the freedom in terms of what project they choose and how they carry it out. It is advisable that instructors do not seize full control of projects but rather leave many things to be determined by students (Alan & Stoller, 2005).

In this study, a series of kinesthetic learning activities were developed through a project-based learning approach to help sport science undergraduates master the essential English for sport science. The aim of developing ESP courses using kinesthetic learning activities is to improve undergraduates' abilities and skills in using English as a second language through a project-based learning approach.

### 1.3 Research Questions

This research is to develop an ESP course using kinesthetic learning activities through a project-based learning approach to answer the following questions.

(1) What is the ESP course using kinesthetic learning activities through a project-based learning approach for sport science undergraduates at Burapha University like?

(2) What is the effectiveness of the developed ESP course using kinesthetic learning activities through a project-based learning approach for sport science undergraduates at Burapha University?

(3) What are the attitudes of the sport science undergraduates at Burapha University toward the ESP course using kinesthetic learning activities through a project-based learning approach?

### 1.4 Objectives of the Study

The purposes of this study are as follows.

(1) To develop an ESP course using kinesthetic learning activities through a project-based learning approach for sport science



undergraduates at Burapha University.

(2) To examine the effectiveness of the developed ESP course using kinesthetic learning activities through a project-based learning approach by comparing students' achievement test scores before and after taking the course.

(3) To explore the sport science undergraduates' attitudes toward taking the ESP course using kinesthetic learning activities through a project-based learning approach.

## 1.5 Significance of the Study

An ESP course using kinesthetic learning activities through a project-based learning approach for sport science undergraduates at Burapha University is developed based on the results of this study. It is an ESP course designed for instructors who are interested in using kinesthetic learning activities to teach sport science undergraduates English. A series of kinesthetic learning activities through a project-based learning approach are designed for them to learn English during the second semester of the academic year 2010. Moreover, the study will help the instructors of English for Exercise and Sport Science II rethink the characteristics of individual students and their learning styles associated with teaching activities. Furthermore, the study is to discover how to design an ESP course using kinesthetic learning activities through a project-based learning approach for sport science undergraduates so that both the expectations of the instructors and the needs of those undergraduates can be fulfilled. Finally, the effectiveness of the kinesthetic learning activities and the sport science undergraduates' attitudes toward the kinesthetic learning activities are



investigated and analyzed.

## 1.6 Scope of the Study

(1) The population of the study is 150 third-year sport science undergraduates at Burapha University, who are studying English for Exercise and Sport Science II during the second semester of academic year 2010.

(2) The samples of the study are 30 third-year sport science undergraduates selected by cluster random from the above population.

(3) The context of the ESP course using kinesthetic learning activities through a project-based learning approach is the class for sport science undergraduates at Burapha University, who are studying English for Exercise and Sport Science II.

## 1.7 Definition of Terms

There are seven terms used in this study.

(1) Project-based learning (PBL) is an instructional approach and a model in which learning is organized around projects. Projects are complex tasks, based on challenging questions or problems, that involve students in design, problem solving, decision making, or investigative activities; give students the opportunity to work relatively autonomously over extended periods of time; and culminate in realistic products or presentations (Thomas, 2000).

(2) Kinesthetic learning activities (KLA) are a pedagogical tool involving physical movement by students (Sivilotti & Pike, 2007). In this study, It can be any body movements and actions students take in the





process of learning English, such as walking, jumping, touching, running, stamping, clapping, throwing and using the hands to touch, role play, action story and walking around for group work, etc.

(3) ESP is an approach to language teaching in which all decisions as to content and method are through the learner's reason for learning (Hutchinson & Water, 1987).

(4) ESP course refers to the instructional package in this study for teaching English for Exercise and Sport Science II in the academic year 2010.

(5) Sport science undergraduates are students who are studying sport science for the Bachelor's Degree in Science Program at Burapha University of Thailand, in the academic year 2010.

(6) The effectiveness of the developed ESP course is the measurement of (the quality of) the achievement of a specific educational goal. In this study, it compares students' achievement scores before and after taking the ESP course, and calculates the effect size of Cohen'd.

(7) The attitudes of sport science undergraduates are the tendency of the sport science undergraduates to act toward or against the ESP course in this study, which are thereby positive or negative.

## 1.8 Summary

This chapter briefly presents the theoretical foundation of this study, which is necessary to find out the brief reasons of the study, the background of the study, rationale of the study, research questions, objectives of the study, significance of the study, scope of the study. The next chapter consists of the literature review, which combs through