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ESP LEARNING STYLE PREFERENCES OF VOCATIONAL STUDENTS AND UNIVERSITY STUDENTS: A COMPARATIVE REVIEW AND IMPLICATIONS FOR ESP TEACHERS

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Abstract:

Research in English for Specific Purposes (ESP) has been conducted extensively throughout the past few decades. The dichotomy between vocational and general tertiary education in ESP classrooms has attracted particular attention. Despite attending ESP classes, students encounter embarrassing situations when they cannot use English effectively in real-life workplace conditions, which is problematic regarding ESP teacher building and ambiguous learning style identification. This article aims to extend a systematic literature review on the preferences of students from vocational institutes and universities regarding ESP learning style and to determine the implications for ESP teachers. The search was conducted using a variety of databases and journals for the period from 2019 to 2023. Two groups of students showed significant differences. Vocational students are more motivated kinesthetic, and prefer hands-on experience than university students. Teacher-modelling, accommodating, and converging learning styles are preferred by university students. The result of this review is expected to encourage ESP teachers to implement broad teaching strategies and prepare diverse lesson plans that will be effective for their students.

Keywords:

Comparative Review, ESP Teachers, Vocational Students, Differences And Similarities

Introduction

ESP has become an integral part of English teaching reforms in recent years. In universities and colleges worldwide, including English-medium institutions, ESP has been taught as a component of vocational employment training. ESP and English for General Purposes (EGP) teachers are frequently discussed within the academic community. Nazari (2020) emphasizes the dynamic nature of teacher cognition and practice within ESP teacher education. Language and content are constantly synergistic and intricately connected, which makes this proposition highly appropriate in ESP. Additionally, each course is designed to meet the individual needs of students. ESP researchers and practitioners must pay more attention to classroom events and their repercussions when examining ESP teachers and students' cognitive and pedagogical paths.

Language learners' preferred language acquisition methods are called ESL learning style preferences. Individual differences influence second language acquisition. Researchers have a growing consensus that recognizing learners' individual differences can facilitate their successful acquisition of a second language. In Chen and Wang's (2021) argument, teachers should be aware of their preferred learning styles, so they can recognize and effectively accommodate their students' learning difficulties.

Accordingly, understanding learning styles benefits ESP teachers (Syakur et al., 2020), as this can enhance student-teacher interactions. A teaching-learning relationship is established between educators and students in education. Educators are instrumental in helping to establish this relationship, and one method is to encourage a better understanding of learning styles to assist in creating opportunities for adaptability. There is a question about whether students' ESP learning styles vary between educational settings.

Literature Review and Research Gap

Firstly, research on ESP is primarily conducted at universities (e.g. Gu, 2019). There is a relative lack of research conducted at vocational institutes, let alone in comparing ESP at the vocational and university levels. As a result, vocational education tends to adopt teaching materials, evaluation systems, and curricula derived from undergraduate education. However, compared to undergraduate education, vocational education focuses on job-specific training for students typically attending a skilled trade program. There is a perception among many students in vocational institutes that the content in ESP classrooms is not meaningful or relevant to them (Bacha et al., 2021). Furthermore, in recent years, ESP learning and teaching have received considerable research attention, as proposed by Asrifan et al., (2020).

However, the effects of students' learning styles preferences in ESP classrooms on ESP teachers have been minimally researched. Rinekso (2021) discussed the learning style preferences of university students, and suggested teachers provide more engaging teaching media and learning materials. However, his research did not provide systematic guidance for teachers on curriculum design, teacher training, and teaching strategies. By investigating the learning style preferences of students enrolled in applied science courses, Synekop (2020) concluded that teachers could deliver suitable instructional interventions to promote academic achievement. This study does not analyze the relationship between students' learning styles and habits, different teaching strategies, and how students handle cognitive knowledge.

Therefore, the purpose of this review was to fill the gaps in the literature by analyzing and comparing the differences between ESP classrooms in vocational institutes and universities concerning students' learning style preferences and the implications of understanding learning styles on the professional development of ESP teachers. The research questions of this review are:

Research question 1: What are ESL students' learning style preferences in ESP classrooms?

Research question 2: What are the differences and similarities in ESP learning style preferences between vocational and university students?

Research question 3: What are the implications of understanding students' learning styles for ESP teachers?

Methodology

A qualitative synthesis approach is used in the current review to synthesize the collected studies. According to Fossey et al. (2002), qualitative research synthesis is using systematic methods to synthesize qualitative research to improve accountability, credibility, and transferability of research findings. Phases 1 and 2 were devoted to searching and identifying studies (Figure 1), and Phase 3 was devoted to reviewing individual studies and cross-study comparison and analysis, which followed the approach of Soh et al. (2020). Using keywords such as "ESP learning styles", "ESP classrooms", and "ESP teachers", 654 results were found in two multidisciplinary databases, Web of Science (WOS) and Scopus. As a means of ensuring the reliability of the literature review, Paul and Criado (2020), in their guideline for conducting literature reviews, suggest that articles published in leading journals should be used as a starting point when conducting literature reviews. A second manual search was conducted in three high-ranking journals in ESP learning and teaching: Education and Information Technologies, Journal of Teaching English for Specific and Academic Purposes, and International Journal of Learning, Teaching and Educational Research. Further verification of the reliability of the search results was conducted by examining the results using the inclusion and exclusion criteria. General and specific inclusion criteria and exclusion criteria were used to refine the search results by considering the research questions, the period and the scope of the relevant studies. According to the overarching general criteria, studies centred on ESP learning styles, ESP classrooms, and ESP teachers were published between 2019 and 2023. As part of the search scope, relevant criteria included studies which examined students' preferences for learning styles in ESP classrooms, and the implications of learning styles for ESP teachers. This review is based on a comprehensive review of the research instruments, populations, and sampling techniques. Specifically, studies which met the exclusion criteria but were not recognized in the journals, such as book chapters, were excluded, as were studies which only referred to the key terms "ESP learning style preferences", "ESP classrooms", and "ESP teachers". As a result, 12 peer-reviewed articles published between 2019 and 2023 were selected for inclusion in the review.

The second phase of the study involved the analysis of 12 articles. The articles were analyzed through an analytical research synthesis table and meta-categories of language processing context, such as students' ESP learning style preferences, ESP classrooms, and ESP teachers. It also included notations regarding methodology, including the purpose, information on participants, and the test used (Table 2) to facilitate comparisons between the studies. During the final phase of the research, phase 3, content analysis is conducted using a directed approach proposed by Kleinheksel et al. (2020). The selected articles were compared and analyzed within

these determined categorizations to identify findings. A thorough analysis of the data was conducted by considering the themes, shapes, and organization of the research ideas in the literature (Oztemel & Gursev, 2020). As well as revealing differences, this review also identified similarities, such as applied learning style models, methodological approaches, and implications of students' learning styles for ESP teachers.

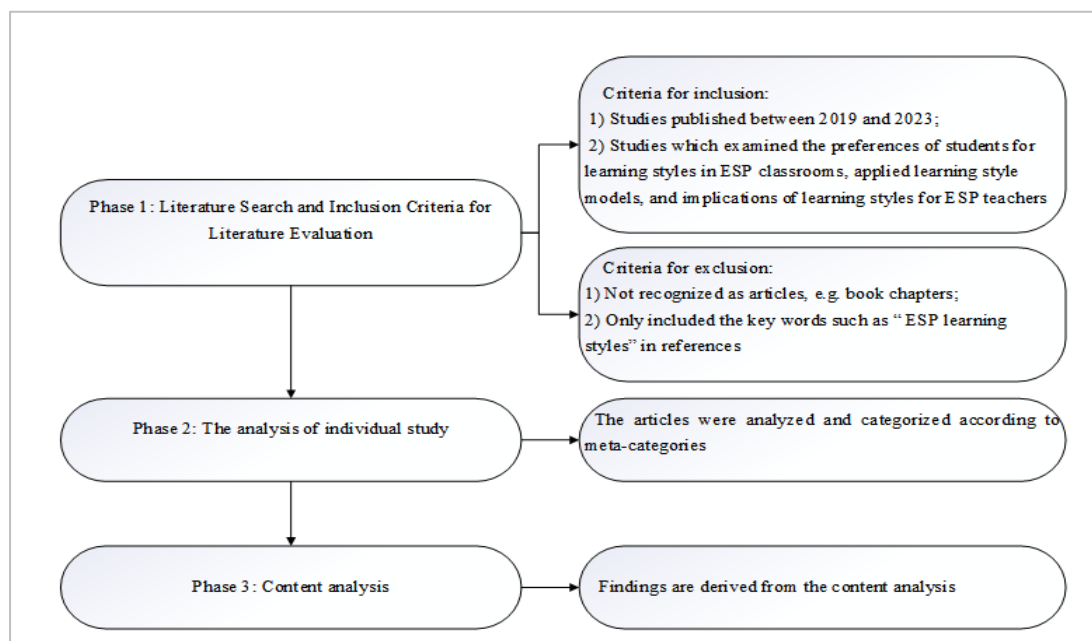


Figure 1: A Diagrammatic Representation Of The Research Procedure

Results

Table 2 lists the literature studies that illustrate the ESP learning style preferences of vocational and university students. Each of the 12 studies was published in English and varied in terms of the country of origin. 11 different countries were represented in the study: Ukraine (2 articles), Saudi Arabia (1 article), Malaysia (1 article), Indonesia (1 article), South Korea (1 article), China (1 article), Uzbekistan (1 article), Spain (1 article), Macedonia (1 article), and Serbia (1 article). Seven studies employed quantitative research methods, such as surveys and descriptive statistics, while two used qualitative methods, including interviews or case studies. Three of the studies utilized a mixed-method approach. Seven studies sampled university students, and five studies sampled students from vocational institutes (Figure 2).

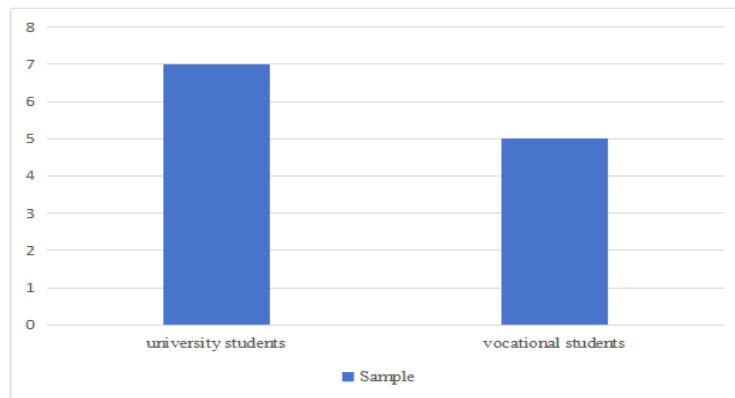


Figure 2: Study Distribution By Sample

Table 1: Data Extraction From Articles

Study	Country	Aim	Research Method	Sample	Learning styles identified	Implications on ESP Teachers
Axmedovna et al., (2019)	Uzbekistan	To determine ESP students' learning styles	Mixed method: Questionnaire, and Interview	390 IT students (Vocational)	Auditory (38%), visual (28%), and kinesthetic (26%)	ESP teachers should provide students with a variety of learning activities.
Dmitrenko et al., (2020)	Ukraine	To identify students' preferred modes of perceptual learning.	Quantitative	313 males and female students (university)	A majority of preferred tactile, kinesthetic, auditory and group learning styles.	ESP teachers should provide more hands-on training and group work.
Gaffas (2023)	Saudi Arabia	To analyze ESP students' learning style preferences	Quantitative	86 female EMP (English for Medical Purposes) students (vocational)	Kinesthetic learning style is their most favored, and the Individual learning style is the least preferred.	ESP teachers can tailor materials and teaching methods, create a conducive learning environment
Girón-García and Gargallo-Camarillas (2020)	Spain	To examine the learning styles preferences of students and lecturers' teaching styles preferences.	Quantitative	588 engineering students (university)	Visual learning styles have a marked preference among students, while the other three dimensions of learning styles are balanced.	With a balanced teaching approach, ESP lecturers can maintain student interest and enhance the classroom learning experience.
Gocić and Jankovic (2022)	Serbia	To determine the relationship between the learning style of	Mixed method: Questionnaire, and Interview	355 ESP students (university)	208 students identified themselves as "assimilators", and	The syllabus should be adapted to the student's learning styles, and the

		ESP learners and their achievement			58 % of the sample as "strangers."	teachers should adopt more effective pedagogical methods.
Khamitova et al. (2019)	Kazakhstan	To identify the learning style preferences of students.	Quantitative	1,105 learners (university)	68.0% of the students selected a kinesthetic learning style, and 51.4% selected an auditory one.	ESP instructors should cultivate students' autonomy and provide vocabulary instruction more creatively.
Kirovska-Simjanoska (2019)	Macedonia	To explore learners' learning styles and their impacts on ESP teaching.	Quantitative	284 first-year students from the four different departments. (university)	Auditory and kinesthetic learning styles are major learning styles; visual and tactile learning styles are minor learning styles preferences.	The ESP teacher may develop a specific curriculum based on the student's circumstances.
Rahman et al., (2020)	Indonesia	To determine ESP students' learning style.	Qualitative	37 participants majored in shipping management and vessel engineering. (vocational)	SDL rates (69.2%) were significantly higher among social individuals (64.8%) and auditory-visual kinetic learners (57.3%).	Instructors need to provide a variety of learning activities.
Gu (2019)	China	To identify ESP students' learning style preferences	Mixed method: Questionnaire, and Interview	120 ESP learners (vocational)	Their learning styles were dominated by kinesthetic learning (70.5%).	Teachers should encourage students to explore alternative styles of learning.

Choi (2021)	South Korea	To explore the relationship between students' learning styles and teaching strategies in ESP classrooms.	Case study	50 political science students and their teachers (university)	Visual (47.9%), active (40%), sequential (47.5%), and verbal (16%)	Teachers should use visual teaching methods to enhance students' learning abilities and academic achievements.
Shykhnenko and Nozhovnik (2020)	Ukraine	To analyze the correlation between learning style and academic success for medical students.	Quantitative	74 first-year medical students. (vocational)	Converger (45.6%), diverger (15.8%), assimilator (15.6%), and accommodator (23.1%)	ESP instructors should optimize their teaching methods for diverse student populations.
Shaalán (2020)	Malaysia	To identify Business Communication students' perceptual ESP learning styles	Qualitative	25 students who took the ESP course. (university)	These students tend to prefer kinesthetic and auditory learning styles for ESL.	Teachers should be aware of learning styles and utilize appropriate teaching materials.

Discussion and Implications

Differences Between Vocational Students And University Students

Differences were found in the learning styles of the two student groups, particularly those related to kinesthetic, independent, and teacher-modelling (Figure 3). The preference for kinesthetic and independent learning styles was greater among vocational students than university students. However, the preference for teacher-modeling learning styles was significantly higher among university students. The purpose of both ESP programs in vocational institutes and universities is to effectively prepare students for careers in their respective professions by providing them with knowledge of specialized disciplines and practical skills. ESP programs at universities emphasise general education, while vocational institutes are more vocation-oriented.

The fact that university students, who emphasized theoretical knowledge more than vocational students, preferred teacher modelling may be attributed to the fact that the courses they studied focused more on the linguistic usage of certain professional activities. ESP teachers explicitly explain practical skills by giving examples or real-life demonstrations since many practical skills are difficult for students to comprehend or are not included in textbooks. This allows university students to follow the examples and demonstrations easily in real-life situations.

In ESP classrooms, vocational students tended to prefer a kinesthetic learning style significantly more than university students. Since vocational students' ESP courses focused more on practical skills than university students, they had a greater opportunity to experience kinesthetic learning in other courses. Students also had greater opportunities to participate in classroom physical activities involving various stimuli, such as field trips and role-playing, in combination with classroom physical activities.

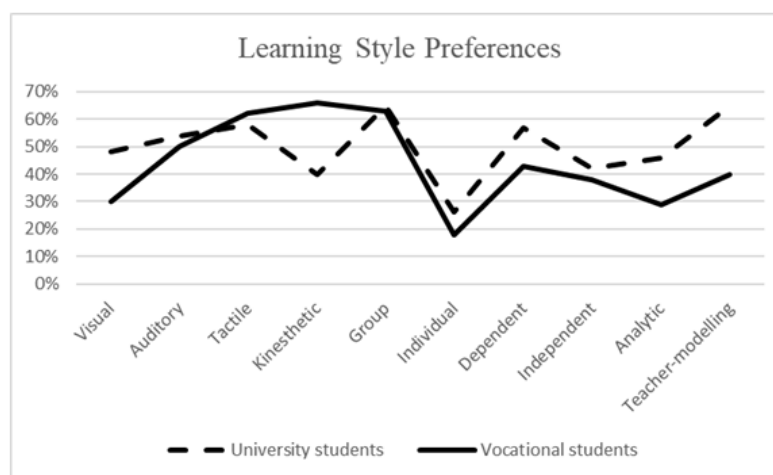


Figure 3: Percentage Distribution Of ESP Learning Style Preferences

Similarities Between Vocational Students And University Students

A high percentage of the students in both groups were multi-model learners with flexible learning styles, who may have been able to adjust their ESP learning to the teaching methods used by their ESP teachers. In both groups, approximately half of the students preferred group learning. This may be an adaptation to the need to observe others' actions, engage in group

discussions, and reflect critically to conceptualize theoretical knowledge and apply it to real-life challenges, such as role-play situations (Bacha et al., 2021). Approximately two-fifths of students in these reviewed studies preferred teacher modelling to learn. They often felt they performed best when given clear instructions on how and what is required before conducting assignments in ESP classrooms. Although the need is taken into consideration by ESP teachers, it is somewhat surprising since the students in their ESP learning progress probably lacked enough confidence to complete professional and problem-solving tasks successfully.

The Implications Of Learning Styles On ESP Teachers

ESP teachers' roles should be twofold; primarily, they should vary their teaching methods according to the needs of each student group, and secondly, be attentive to individual differences. On the student's part, it is their responsibility to understand and develop appropriate learning strategies to understand their specific learning style. It applies to both university and vocational education. To match the needs of each student group, different ESP courses require different designs, training plans, flexible teaching methods, and corresponding teaching materials. This goal will only be realised through increased awareness among ESP teachers in universities and vocational institutes. In other words, it is believed that identifying the ESP learning style preferences will create a platform for both teachers in planning and guiding students in their lifelong learning.

However, it is not feasible to expect English teachers to become subject specialists in a short amount of time. A more comprehensive evidence base is required to provide ESP teachers in universities and vocational institutes with an enhanced, goal-oriented, sophisticated training program (Fitria, 2020). A greater focus on actual, rather than hypothetical, classroom experiences is necessary to inform pedagogical practice relative to combining students at different education levels (Alzebaree & Zebari, 2021). Teacher training programs with a practical component are significantly more effective than programs without a practical foundation or impetus to run the course (Resch & Schrittmesser, 2023). In training ESP teachers, the goal is not to make them subject experts but to maximize their linguistic ability and knowledge.

In Gu (2019), it is believed that subject-specific work is best approached by collaborating with subject specialists, ideally by team teaching or the guidance of a subject specialist teacher. A close relationship can be developed between ESP and subject teachers through collaborative team teaching. During the ESP teacher training process, cooperation can take the following forms, which are aimed at gaining knowledge of the subject syllabus in an academic environment and learning the tasks learners must perform in a particular professional setting: 1) Subject specialists enhance the teaching materials of ESP teachers by providing the latest subject information; 2) Lesson plans and teaching activities prepared by ESP teachers are reviewed and commented upon by subject experts.

In addition, ESP teachers can employ appropriate teaching strategies to meet learners' needs, desires, interests, and learning style preferences, thus minimizing conflicts between teachers and students. One effective method for accommodating different learning styles is providing various activities that meet their needs. ESP teachers may also benefit from differentiating activities based on groupings. In a class of students with varying learning styles and strategies, it is consistently beneficial for teachers to divide students into groups according to their learning styles and provide activities that correspond to those styles. Literature synthesized

before has shown that learning styles may also be affected by training or learning experience changes, similar to other behaviors influenced by cultural experiences (Alfallaj & Alfallaj, 2020). With moderate training, unconscious learning styles can be converted into conscious learning strategies. However, this should be done deliberately under the guidance of the teacher. Therefore, ESP teachers should facilitate guided stretch activities, create an informal yet structured classroom setting to ease students out of their formality, introduce topics gradually, avoid embarrassment, and maintain consistency in the classroom.

According to this review, discipline-specific knowledge is one of the major problems of many ESP teachers, which may be exacerbated under different educational circumstances. There is no "sovereign remedy" to this problem; therefore, ESP teachers in university and vocational settings should be aware of the importance of developing essential expertise in a given area (Basturkmen, 2019; Gu, 2019). ESP teachers, however, should follow the recommendations of Gaye (2020) in situations where students possess a greater understanding of the subject than the teacher becomes acquainted with the materials used in the course of ESP and let the students correct them. This approach to the problem is consistent with the fundamental principles of learning-centred teaching, which emphasize the importance of teaching as a two-way process and a way for teachers to share their knowledge with their students while learning from them. In addition, the studies reviewed above found that learning styles can change during education (Dmitrenko et al., 2020). Teaching ESP is therefore not seen as a static commodity but rather as developing expertise, which is why many ESP teachers may be surprised to learn how much knowledge they can acquire simply by teaching and conversing with students.

Conclusion

Understanding students' preferred learning styles can enhance language acquisition in ESP classrooms. Several important insights have been derived from the literature review that can be implemented to achieve students' full potential. Students in various educational settings prefer different learning styles. This demands ESP teachers adapt their teaching methods to appeal to this diversity to improve and enhance students' academic performance. It was found that vocational students are more motivated and kinesthetic and prefer hands-on experience than university students. Teacher-modelling, accommodating, and converging learning styles are preferred by university students. To enhance the interaction between teaching and student learning in ESP classrooms, teachers are required to assist students in developing their learning styles in diverse classrooms.

Contribution and Limitations

The findings of this review highlight the importance of identifying student learning styles and how they influence the educational process. It is possible to improve teaching and learning in ESP classrooms by incorporating learning styles and improving interactions among members of an interdisciplinary team. Among the confounding factors of a student's final quantitative performance are their learning style and attitudes toward a discipline, as Hamilton (2020) highlights. This, in turn, highlights the importance of considering students' learning styles and preferences, which were found to influence academic performance significantly. Moreover, the requirement for more interactive and practical teaching methods could indicate a need for additional ESP teachers in the class.

Furthermore, this review shed new light on ESP teachers' training. More sophisticated and goal-oriented training for ESP teachers requires a broader evidence base than is currently

available. An appropriate pedagogical approach must be provided to teachers. Further, a basic knowledge of the subject is necessary. In some instances, this can be accomplished via pre-service instruction and, in many cases, through self-training conducted while in service. While self-training programs are based on an analysis of the needs of ESP learners, they are not sufficiently comprehensive to prepare teachers to deal with real classroom challenges (Shalatska et al., 2020). To improve pedagogical practice, it is necessary to conduct research on students' learning styles and to focus on actual classroom experiences rather than theoretical or hypothetical experiences (Almasri, 2022). Training programs dedicated to teacher education incorporating a practical component are more effective than programs "without the practical base and impetus of an actual course running" (Xu et al., 2020, p.782).

Several limitations are present in the current literature review. Firstly, the effects of students' learning styles preferences in ESP classrooms on ESP teachers have been minimally researched. Second, few studies have compared and analyzed the differences between vocational and university education regarding ESP learning style preferences. A more complete mapping of ESP courses should be proposed in future research, as well as a discussion of whether differences between the two groups can be related to the professions they choose to pursue in the future.

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