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Fulfillment of Basic Psychological Needs of English for Specific Purpose Learners during Online Learning: Lecturers' and Learners' Perspectives

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Abstract

Investigating learners' motivational factors from Basic Psychological Needs (BPN) has been prevalent in a foreign/second language domain, but there is a dearth of well-documented research on ESP instruction. This study addressed the void by scrutinizing ESP learners' BPN of relatedness, competence, and autonomy using a validated and reliable BPN instrument to assess online ESP practices and challenges within unideal EFL situations. A total of 617 ESP students and 94 ESP lecturers from 14 universities across provincial areas of Indonesia participated in the study. A mixed-method design administering questionnaire and interview was applied to draw ESP students' BPN from the perspective of lecturers and students. The results revealed significant differences between lecturers' and learners' perceptions regarding several indicators of relatedness, competence, and autonomy categories. While the lecturers' questionnaire and interviews reported that the ESP students had an acceptable level of engagement with wider ESP communities, the students mentioned their low engagement with content lecturers, stakeholders/experts, and communities. These differences are then utilized as a stepping stone to design a more 'ideal' ESP program using a specific BPN framework to enhance ESP lecturers' and students' specific English and content knowledge under the online learning platforms. The study implies that to help ESP students learn English, online ESP programs should be collaboratively designed by involving English lecturers, content lecturers, ESP stakeholders from relevant fields, and technology-related materials that meet English and specific content knowledge needs.

Keywords: autonomy, basic psychological needs, competence, ESP stakeholders, learning needs, online learning, relatedness, and unideal situation

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1. Introduction

Generally, ESP conditions in the context of EFL and ESL are classified into two different groups. The first group is ESP with well-represented conditions, which is usually found in developed countries, supported by qualified ESP lecturers with relevant ESP educational backgrounds and complete facilities (Al-Wassia et al., 2015; Chen et al., 2013). Meanwhile, the second one, ESP with less represented conditions, commonly occurs in developing countries (Mulyadi et al., 2020; Sipe & Saludadez, 2021). It is characterized by less qualified ESP lecturers due to their lack of ESP content knowledge and institutional support. This condition requires special attention to address negative complaints about motivational factors like BPN (Basic Psychological Needs) that serve as the main foundation in learning (Ryan & Deci, 2017; Wong, 2022) so that the following issues will be addressed.

Considering the dynamic of online instructional practices during technology-mediated learning, the lecturers and learners require harmonious digital technology skills, pedagogy, and ESP content courses. Furthermore, the utilization of technology-mediated learning in the context of English as a Foreign Language (EFL) instruction, through the promotion of self-confidence among students, has the potential to augment their level of participation in the realm of online learning (Wang et al., 2023). Failure to maintain the harmony of those three skills, technology, pedagogy, and course content during classroom instructional practices will cause learning discouragements and catastrophes (Arifani, Jumadi, et al., 2023). This situation occurs because there is disharmony between lecturers' teaching and learners' learning needs of their BPN for autonomy, competence, and relatedness. Meanwhile, lecturers' fulfillment of BPN is reported to have a positive correlation to learners' learning motivation and outcomes (Alamer, 2021; Zhou et al., 2021). Stemming from Deci and Ryan's (2000) self-determination theory (SDT), learners who have positive fulfillment of their BPN tend to be intrinsically motivated, even in the absence of external influence and interference.

Regarding the vital roles of BPN in educational settings, educational researchers around the globe have added this framework into their research to foster the quality of teaching and learning (Clément et al., 2020; Evelein et al., 2008; Van Roy & Zaman, 2019; Volodina et al., 2019; Zhou et al., 2021). Significant contributions of BPN in various educational fields have also been acknowledged. Previous study findings indicate that BPN significantly impacted learners' motivation and learning outcomes (Durksen et al., 2016; Van Roy & Zaman, 2019; Vermeulen et al., 2012;

Zand-Moghadam, teaching effectiveness, and behavior (Evelein et al., 2008; Korthagen & Evelein, 2016), vocational education and training satisfaction (Volodina et al., 2019; Guo et al., 2023) college faculty members (Clément et al., 2020), vocabulary learning (Alamer, 2022), and EFL teacher professional development (Arifani, Mindari, et al., 2023; Fan & Wang, 2022; Zhi & Wang, 2023). Because of the unprecedented acceptance of BPN in the educational fields, EFL/ESL researchers have attempted to use the BPN frameworks to improve the quality of language teaching and learning (Alamer, 2022; Arifani, Mindari, et al., 2023; Wong, 2022). However, in a systematic review of the available research concerning EFL lecturers' and learners' BPN, the authors find a dearth of instrumentation, context representation, and theoretical framework. Previous studies mostly focused on survey data only, so they failed to capture the dynamic characteristics of participants in the BPN framework. Furthermore, it is imperative to consider that the existing BPN structure has not been specifically tailored for ESP instruction, instead of for EFL context in general.

The present study focuses on the ESP context because it has a challenging mission to simultaneously foster learners' specific English and content knowledge. At the same time, most ESP lecturers in EFL settings are commonly deficient in specific relevant English backgrounds. This phenomenon will contribute to the body of literature on how SDT suggests optimizing ESP learning through BPN. Therefore, this study aims to investigate the two research questions.

1. What are ESP lecturers' and learners' perspectives on the BPN for competence, relatedness, and autonomy of ESP learners during online learning? Is there a significant difference between ESP lecturers' and learners' perspectives?

2. What are the perspectives of ESP lecturers and learners on the practices and challenges of promoting ESP learners' BPN during online learning?

2. Literature Review

2.1. Basic Psychological Needs: Theoretical Framework

BPN is an outgrowth of Self-Determination Theory (SDT) derived from the field of psychology and aims to maximize a person's psychological potential in terms of internal motivation and development as well as integration in social interactions (Holzer et al., 2021; Shelton-Strong, 2020); Shakki, 2023). The concept of BPN is

outlined in three main elements, namely relatedness related to social interaction, competence related to self-efficacy, and autonomy related to self-regulation (Behzadnia & FatahModares, 2020; Wong, 2022). Due to the high popularity of the BPN theory in its development, this theory has been widely developed in various fields, including educational contexts (Van Leeuwen et al., 2020).

According to SDT theory, the fulfillment of BPN has been well-acknowledged in the workplace and education fields because of motivational aspects that impact people's behavior and self-actualization (Deci & Ryan, 2000; Ryan & Deci, 2017). In foreign/second language learning, SDT theory has been limitedly applied to enhance teaching and learning quality by investigating lecturers' and learners' BPN of autonomy, competence, and relatedness elements. Harmonizing between foreign/second language lecturers' and learners' BPN contributes to foreign/second language acquisition. Adapting Deci and Ryan's (2000) BPN conception, the authors defined autonomy as learners' freedom and self-control to engage in meaningful and exciting language learning activities. Learners' involvement in broader social learning situations should foster learners' need for autonomy (Greenier et al., 2021). The lecturers should also facilitate their students to choose language learning activities that are personally relevant to their needs.

In addition, competence refers to learners' feeling of competence and capability to successfully perform the target learning activities (Wong, 2022). To develop learners' senses of competence and ability in their language learning activities, lecturers should set clear structure and learning objectives. Relatedness refers to learners' connectedness with other people from wider cultural events and communities that support their language learning. The psychological need for relatedness is vital for promoting learners' learning internalization, ownership, and engagement (Derakhshan, 2022; Niemiec & Ryan, 2009). The concept of connecting, caring, and belonging to the learning community should not be restricted to classroom settings (teacher-student and student-student interaction), but it should involve students engaging in relevant L2 events/communities to provide a real-life learning experience and authentic oral communication (Yamin et al., 2020). The aforementioned BPN framework of leads the researchers to investigate psychological needs in the ESP context because of its scarcity of investigation under the umbrella of the EFL/ESL field.

2.2. Motivational Factors in ESP Research

ESP is generally defined as teaching and learning English for specific majors as part of learners' undergraduate programs. Since ESP is part of the undergraduate program, it is commonly taught as an additional course at the beginning or at the end of their study program to equip undergraduate students with specific English needs and communication skills. Because of the positive sides of ESP programs for undergraduate students, many universities around the globe, such as Indonesia, China, Saudi Arabia, Australia, and Singapore, have integrated ESP programs into their undergraduate programs (Al-Omairi, 2020; Alvi et al., 2016; Dashtestani & Hojatpanah, 2022; García-Sánchez, 2016; Jafari Pazoki & Alemi, 2020; Simonova et al., 2021). Successful ESP practices from motivational factors, teaching-learning strategies, and ESP learners' learning outcomes have been reported by many researchers. This part reviews some previous research in relevant ESP contexts from motivation perspectives because the study focuses on addressing the BPN in ESP under the umbrella of Deci and Ryan's, (2000) SDT. BPN, with its positive and negative sides, has been increasingly studied in the field of EFL and ESL domain (Alamer, 2022) and has become a crucial precursor to a successful implementation of teaching and learning English as a foreign/second language and enhances learners' motivation (Evelein et al., 2008; Vermeulen et al., 2012). However, to date, no study has investigated BPN in the area of ESP.

A study conducted by Jafari Pazoki and Alemi (2020), for example, investigated factors that affected ESP learners' motivation for learning English for engineering in an Iranian setting using quantitative survey and interview designs. The results found that long-term objectives and the frequency of using technical English in ESP class could enhance the elements of ought-to self and instrumentality promotion motivation. Learners' negative attitudes towards their ESP learning experience suggest addressing further investigation since the ESP learning experience involves two dimensions of ESP and their specific content. Since those two essential elements are excluded, and single motivational perspectives are involved in the study, it is still inconclusive whether ESP learners have low or high motivation toward their learning experience.

Next, from the single motivation theory, a study from two different regions of Czech and Slovak Republics (Simonova et al., 2021) reported their successful ESP instructional practices using the smart technology approach. The implementation of

smart technology using the principles of autonomy, connectivity, and context-awareness and Substitution, Augmentation, Modification, and Redefinition. (SAMR) could enhance ESP learners' motivation (actuators, coordinators, directors, and explorers). From the four motivation types, the coordinators variable as the second type of motivation could significantly enhance learners' English knowledge, but it could not improve learners' learning content. Since learning ESP involves not only general English but also content knowledge, the results of the previous studies from single motivation theory cannot maintain the harmony of ESP learning where the two learning outcomes (English specific and content knowledge) simultaneously. The above single motivation outlook cannot explain comprehensive aspects of ESP in EFL settings like in Indonesia and other situations that have unideal ESP conditions. ESP under unideal conditions occurs most frequently when ESP lecturers lack an ESP background due to their graduation from the English education department and must learn ESP while teaching ESP.

3. Methodology

3.1. Design

This study aimed to draw the ESP lecturers' and Learners' perspectives on BPN fulfillment, practices, and challenges of promoting the BPN framework during online ESP teaching and learning. A mixed-method procedure was applied to establish more comprehensive results (Creswell & Creswell, 2017; Richards, 2003). The present study employed mixed-method approaches to ascertain participants' comprehensive perspectives and enhance the validity of the research because the perspectives of individuals are dynamic and complicated (Creswell & Creswell, 2017).

The quantitative data (ESP lecturers' and learners' self-reported perspectives of BPN fulfillment) were collected using a five-Likert scale of the BPN questionnaire (Alamer, 2022; Wong, 2022). Meanwhile, the qualitative data (ESP lecturers' and Learners' practices and challenges in promoting BPN fulfillment) were obtained from the semi-structured interviews.

3.2. Participants and Context

The sample of this study involved 94 ESP lecturers and 617 ESP learners from 14

universities in the four provinces in Indonesia, i.e., West Java, Banten, Central Java, and East Java Province. An ESP program in the Indonesian context is commonly managed under the umbrella of a language center. The status of ESP is an additional course to equip the students with the ability to communicate in English. All first-year students from non-English majors were obliged to enroll in ESP as a compulsory course containing listening, speaking, reading, and writing subjects. At the end of the program, all ESP learners got a one-year certificate of ESP accomplishment. Although ESP program has been established for more than 15 years, there is no specific ESP curriculum. At the beginning of the program, program coordinator, language lecturers, and content lecturers collaboratively wrote ESP books as an instructional guideline. Workshops and seminars were also conducted regularly to foster the quality of the program.

All ESP lecturers had either Ph.D. ($n = 23$) or M.Ed. ($n = 71$). They graduated from the English education department and specialized in English language teaching as they were prepared to be secondary English lecturers. They learned ESP while they were teaching ESP at the university. In some universities, ESP program was used as a venue to boost the quality of EFL graduates before they became English lecturers in secondary schools. Therefore, most of the ESP lecturers (language lecturers who teach ESP at a university) were not permanent lecturers. The study participants, both ESP lecturers and learners, were selected using convenience and sequential sampling techniques. The Convenience sampling technique was applied to select the surveyed participants. Meanwhile, the sequential nested sampling procedure proposed by Collins et al. (2007) was administered to find the targeted interviewed participants. The author interviewed 20 ESP lecturers and 25 students based on their availability. The profiles of the two groups of participants are illustrated in Table 1. Before commencing the investigation of the participants, ethical concerns were addressed by obtaining consent forms that were duly signed by both the involved ESP lecturers and the participating ESP learners.

Table 1
Respondents' Demographic Information

	ESP lecturers	ESP Learners
<i>Gender</i>		
Female	52 (55.32%)	413 (66.94%)
Male	45 (44.68%)	204 (33.06%)
<i>Average Age</i>	36.48 years old	19.13 years old
<i>Province</i>		
Banten	14	89
West Java	23	150
Central Java	29	196
Est Java	28	179
<i>Questionnaire participants</i>	94 people	617 people
<i>Interview Participants</i>	20 people	25 people
<i>Teaching/ Learning Major</i>	Nursing (31%), Public health (7%), Management (27%), Accounting (18%), International Business (17%)	Nursing (20%), Public health (15%), Management (22%), Accounting (20%), International business (14%)

3.3. Data Collection

3.3.1 Questionnaire Development

Two questionnaires were developed based on previous studies' BPN of autonomy, relatedness, and competence rooted in SDT in educational and EFL contexts (Alamer, 2022; Deci & Ryan, 2000; Wong, 2022). The lecturers' questionnaire contained three dimensions of BPN fulfillment for ESP teaching. Similarly, the learners' questionnaire had the same dimensions for ESP learning. The contents and items of the two questionnaires were reviewed and edited by the author and research team using SDT and their derivatives. During the development of the questionnaires, the author also discussed them with three different experts of BPN (psychology lecturers for BPN content, CALL lecturers for online teaching and learning, and ESP lecturers for language and content) through a panel meeting. The questionnaires were piloted to ESP lecturers and students for consistency checks.

The sections of ESP lecturers' and learners' questionnaires consisted of autonomy (7 items), relatedness (8 items), and competence (7 items). The construct validity and reliability of the questionnaires were estimated using exploratory factor analysis and Cronbach's Alpha tests. The exploratory factor analysis was applied using the Kaiser-Meyer-Okin (KMO) to estimate the sampling adequacy, and Bartlett's test of sphericity (0.00) was also estimated. The KMO indicated the values of sampling adequacy of the three BPN dimensions: Relatedness = 0.76,

Competence = 0.87, and autonomy = 0.89. Similarly, Bartlett's test (0.00) indicated higher than 0.30. Consequently, all factors of the questionnaires could be accepted. The Cronbach's Alpha coefficients (0.76 – 0.89) also indicated an acceptable reliability level.

Ultimately, all surveyed participants were provided with a consent letter indicating their agreement to participate in the study based on a voluntary basis. Their confidentiality and anonymity were also ensured.

3.3.2 Interview Development

The interview protocol was provided as the qualitative data to enrich the quantitative survey data. The interview questions were developed from the questionnaires. Two sets of semi-structured interview questions were established and administered to two groups of participants, including ESP lecturers and students. Content validity and suitability of the interview questions regarding BPN fulfillment practices and challenges during online ESP teaching and learning were established using evaluation checklists. The evaluation checklists were submitted to three experts of BPN, CALL, and ESP lecturers to get feedback. Experts' comments and notes were considered to expand the quality of the interview questions and suitability. The author also piloted the interview questions to similar groups of ESP learners and lecturers to check their consistency. To ensure a degree of consistency in the interviewing processes, the respondents were asked questions with precise wording and in a predetermined order.

Interviews with ESP lecturers dealt with specific themes such as their understanding of autonomy practices, lecturers' efforts to connect their students to relevant ESP communities, and their challenges in promoting BPN frameworks during online ESP teaching and learning. Meanwhile, interviews with students dealt with their autonomous learning practices, interaction with language and content lecturers, professionals, and their challenges of BPN fulfillment. The evaluation results were then analyzed by inter-coder reliability coefficient to validate the interview protocol using SPSS version 21 (see Table 2).

Table 2
Inter-Coder Reliability Of Interview

Genre	Category	Kappa
Interview with ESP lecturers	1. Understanding of autonomy practices	1
	2. Efforts to connect their students to relevant ESP communities	.82
	3. challenges of promoting BPN frameworks during online ESP teaching and learning	.84
Interviews with students	1. Autonomous learning practices	1
	2. Interaction with language and content lecturers	.74
	3. Interactive with professionals	0.92
	4. Challenges of BPN fulfillment	0.87

Table 2 indicates the results of the inter-coder reliability analysis. The data shows that the average of Cohen's Kappa coefficient was 0.88. It demonstrated acceptable inter-rater reliability since acceptable reliability ≥ 0.84 as indicating extremely high agreement between coders (Cheung & Tai, 2023).

3.4 Data Analysis

To analyze quantitative survey data, both descriptive and inferential statistics were administered sequentially to describe participants' perspectives of BPN fulfillment during online ESP teaching and learning. The results of the questionnaires from the two groups of participants were presented in the form of mean and standard deviation. In addition, the non-parametric Mann–Whitney U test was also estimated to explain the differences of BPN perspectives between the ESP lecturers and students. This non-parametric test was employed in this study as the assumptions of the parametric test were not met, mostly due to the lack of homogeneity in variance across the different groups. The author also ensured the construct validity and reliability of the BPN questionnaires in terms of autonomy, relatedness, and competence using exploratory factor analysis and Cronbach's Alpha tests.

Furthermore, a qualitative analysis was also conducted using thematic analysis based on the BPN three categories of autonomy, relatedness, and competence. Successful practices, failures, and challenges of the BPN fulfillment during online instruction were also elaborated through interviews with lecturers and students. The interview process was recorded after obtaining approval from the ESP program coordinators, authorities, and study participants. The author and co-authors transcribed the interview data directly after each interview process was

accomplished. To enhance the accuracy of the transcription, a coding scheme was developed by the author and co-authors. Eventually, the coding results were also interpreted by people involved in this authorship.

4. Results

4.1. Lecturers' and Learners' Perspectives on ESP Learners' Basic Psychological Needs During Online Learning

Table 3 shows the results of lecturers' and learners' perspectives on ESP learners' psychological fulfillment of *relatedness* in learning General English and ESP using an online platform in terms of the mean, standard deviation, and difference. The mean score between 1 and 2.5 reveals a low level of fulfillment, 2.6–3.5 a medium level of fulfillment, and 3.6–5 a high level of fulfillment. Apart from fulfillment of care, contextuality, involvement, and learning progress, about which the students perceived a high level of fulfillment, the students perceived low and moderate levels of *relatedness* fulfillment in other *relatedness* indicators. Conversely, the lecturers reported that students had moderate and high levels of relatedness in terms of engagement with relevant ESP environments, understanding students' difficulties, and learning progress.

Table 3
ESP Lecturers' and Learners' Perspectives on ESP Students' Relatedness Fulfillment

Relatedness Category	Participants	N	Mean	SD	Mann-Whitney U test	p
ESP learners feel that English lecturers' care about students in mastering General English and ESP during online learning.	ESP	617	4.37	0.93	25835.00	0.06
	Learners	94	4.61	0.71		
English lecturers give students contextual materials of General English and ESP with Technology relevant to the field of my study program.	ESP	617	4.34	0.91	25769.00	0.06
	Learners	94	4.28	0.72		
In online English courses, ESP learners engage with stakeholders (e.g., Doctor, Nurse, Manager) in ESP learning to improve their English mastery.	ESP	617	2.01	1.29	22919.00	0.00
	Learners	94	2.69	1.65		
In completing the tasks in online English learning, ESP learners can collaborate	ESP	617	2.29	1.36	20996.50	0.00

Relatedness Category	Participants	N	Mean	SD	Mann-Whitney U test	p
with ESP lecturers who have a background related to learners' field of study.	ESP lecturers	94	2.94	1.33		
English lecturers give students positive feedback dealing with their works in General English Tasks and ESP Tasks.	ESP Learners	617	3.47	1.54	21048.00	0.00
When English lecturers teach English in an online learning context, ESP learners really like to be involved in General English and ESP.	ESP lecturers	94	4.34	0.78		
	ESP Learners	617	4.06	0.99	26718.50	0.19
English Lecturer is really concerned with the progress in developing learners' mastery of both General English and ESP.	ESP lecturers	94	3.97	0.89		
	ESP Learners	617	4.32	0.91	26438.50	0.12
English lecturer is very understanding of my difficulties in mastering ESP.	ESP lecturers	94	4.49	0.79		
	ESP Learners	617	2.81	1.50	13613.50	0.62
	ESP lecturers	94	2.27	0.91		

The Mann-Whitney U test illustrated that there were no significant differences among three indicators of relatedness regarding learning progress, involvement, and understanding of learners' learning difficulties. Meanwhile, in the context of online learning, ESP learners and ESP lecturers perceived two indicators related to lecturers' concern for students' mastery of general English and ESP, as well as the provision of contextual materials. The mean scores for these indicators were found to differ slightly between the two groups, although the difference was not statistically significant, as indicated by a P-value slightly greater than 0.05. On the other hand, the participants of the two groups did not have an agreement on the three indicators of *relatedness* category, i.e., engagement to wider ESP environments and relevant ESP stakeholders/experts, general English and specific content attainments, and feedback.

Table 4 describes the lecturers' and learners' perspectives on students' BPN of *competence* during online learning in terms of the mean, standard deviation, and difference. The ESP students reported low competence in general English, specific content knowledge, and specific content task accomplishment. The ESP students mentioned that they had high *competence* fulfillment regarding the importance of ESP competence for their future careers.

Table 4*ESP Lecturers' and Learners' Perspectives on ESP Students' Competence Fulfillment*

Competence	Participants	N	Mean	SD	Mann Whitney U test	p
During online English classes, ESP learners feel competent in General English and ESP.	ESP	617	2.92	1.34	21675.50	0.00
	Learners	94	3.49	0.88		
When English lecturers are teaching English skills and ESP Skills, they said that ESP learners are good at both skills.	ESP	617	3.34	1.29	26777.00	0.22
	Learners	94	3.60	0.90		
When English lecturers teach English skills in an online learning context, ESP learners learn relevant English skills for their future career.	ESP	617	3.00	1.51	19642.00	0.00
	Learners	94	3.91	0.62		
When English learning goals involved General English and ESP, ESP learners are capable of achieving those goals.	ESP	617	3.13	1.39	21807.00	0.00
	Learners	94	3.77	0.80		
When the English learning process, ESP learners can find the best method for learning techniques in mastering English focused on General English and ESP.	ESP	617	2.86	1.52	27911.00	0.55
	Learners	94	2.74	1.35		
When English lecturers teach English skills with online learning, ESP learners can quickly learn new General English skills and English for Specific Skills	ESP	617	2.66	1.43	28756.00	0.89
	Learners	94	2.65	1.31		
When English lecturers teach English skills with online learning, ESP learners can complete General English and English for Specific tasks related to writing and speaking.	ESP	617	2.54	1.47	26624.50	0.19
	Learners	94	2.70	1.34		

Based on the Mann–Whitney U test results, there were no substantial differences between the perspectives of the two groups on ESP learners' fulfillment of competence category in terms of teaching strategies, English abilities, and specific ESP productive tasks (speaking and writing). The respondents of both cohorts did not have a consensus about other competence indicators, i.e., learners' ESP competencies, learning relevant ESP content for students' future careers, and goal attainment.

Table 5 shows the findings of lecturers' and learners' perspectives on ESP

students' autonomy fulfillment in terms of the mean, standard deviation, and difference. Although lecturers and learners agreed that the ESP learners were motivated by online learning, they thought their ESP learning procedures and how they were evaluated in actual ESP settings needed improvement.

Table 5

ESP Lecturers' and Learners' Perspectives on ESP Students' Autonomy Fulfillment

Autonomy	Participants	N	Mean	SD	Mann Whitney U test	p
It is interesting for students to evaluate their General English and ESP.	ESP	617	2.98	1.51	24370.50	0.11
	Learners	94	2.57	1.56		
In an English class with Technology-enhanced instruction, ESP learners are free to express their ideas both in general English and Specific English course.	ESP	617	3.93	1.09	24676.50	0.06
	Learners	94	4.26	0.84		
When English lecturers teach General English and ESP in an online learning context, ESP learners can determine their learning strategies to complete the tasks on general English and Specific English.	ESP	617	4.03	0.96	23890.50	0.00
	Learners	94	3.80	0.74		
When English lecturers teach General English and ESP in an online learning, ESP learners feel motivated in learning process.	ESP	617	3.98	0.98	25664.00	0.06
	Learners	94	3.82	0.80		
English lecturers consider learners' learning needs in General English and ESP.	ESP	617	3.07	1.49	14278.00	0.00
	Learners	94	4.40	0.87		
During online learning, ESP lecturers identify learners' learning needs for General English and ESP in improving their skills successfully.	ESP	617	2.90	1.42	18665.00	0.00
	Learners	94	3.77	0.80		
English lecturers let students freely practice English with general English and a Specific English environment.	ESP	617	3.07	1.47	28928.00	0.97
	Learners	94	3.05	1.19		

However, Table 5 points out that there were significant differences regarding three indicators of autonomy category, namely ESP learning strategies, motivation, and learners' ESP learning needs. Both groups agreed that the fulfillment of freedom

to express ideas and learning motivation during online ESP learning were highly fulfilled. Meanwhile, both lecturers and students recognized that their learning evaluation on general English and specific content knowledge was low fulfilled during online learning.

4.2. Lecturers' and Learners' Perspectives of Practices and Challenges in Promoting BPN During Online ESP Learning

4.2.1. Relatedness: ESP Lecturers' Perspectives on the Practices and Challenges of Promoting Relatedness

As the interview findings on the practices of relatedness category depict, the majority of ESP lecturers mentioned that they used YouTube to relate the ESP learners to relevant ESP environments ($n = 28$), invited stakeholders to ESP classroom using the Zoom platform ($n = 1$), assigned the students to collaborative learning projects ($n = 28$), allowed the students to communicate with the ESP lecturers via email, WhatsApp and other mobile apps ($n = 24$). Meanwhile, in the interview results on the challenges of relatedness category, the ESP lecturers stated that they had limited networking to relate students to relevant stakeholders ($n = 27$), learners' low English proficiency in communicating with various ESP communities from different cultures ($n = 14$) and restricted collaboration with content lecturers and support from the department ($n = 28$). The following excerpts indicate ESP lecturers' perspectives of practices (TRP) and challenges (TRC) in promoting learners' relatedness category.

I use the YouTube media mainly because they provide the means to understand the real ESP and it can enrich students' specific English from it (TRP 26).

I have even invited a doctor who is my cousin to my ESP classroom to explain the process of diagnosing a certain disease via zoom meeting (TRP 11).

The students feel happy when I assign them project work. I ask them to make a role-play conversation video such as selling a product between a seller and customers and interview with managers (TRP 8).

I allow my students to communicate with me using WhatsApp, email or Telegram dealing with their ESP projects (TP 5).

I cannot connect my ESP learners to wider ESP communities because I am teaching English for Law and I do not have any networking with lawyers or relevant stakeholders (TRC 2).

Our collaboration with content lecturers and ES lecturers were restricted in writing ESP textbooks. So, we cannot connect to the students regarding their ESP course (TRC 22).

Learners' low English ability makes it hard to relate the students to wider ESP communities (TRC 9).

4.2.2. Relatedness: ESP Learners' Perspectives on the Practices and Challenges of Promoting Relatedness

Based on the interview results, many of the students liked to learn ESP content and specific English from YouTube ($n = 56$), the students appreciated their ESP lecturer's interactions with the students using WhatsApp and email to consult their ESP projects (52), and the students also felt positive toward collaborative project works such as creating conversation video and uploading it to the YouTube channel to get like and good comments from viewers ($n = 56$). Meanwhile, in the interview results on the challenges of the relatedness category, all the ESP learners highlighted the lack of access to wider ESP communities during their online learning as the main challenges ($n = 56$), and low English abilities ($n = 54$). The following excerpts indicate ESP learners' perspectives of practices (SRP) and challenges (SRC) in the category of relatedness.

Using videos from YouTube can support my ESP learning and specific content knowledge. I learn specific English vocabulary from it and knowledge from it (SRP 10).

The ESP lecturer allowed me to communicate with him using WhatsApp and email regarding our ESP projects (SRP 17).

Making a conversation video such as role-play and interview is very good for me to improve my English-speaking ability and confidence because we upload the video so we have to prepare it very well (SRP 39)

I do not feel confident to communicate to native speakers from different cultures because my English speaking and writing abilities are not good (SC 49). Even, to communicate via email, I do not know what to say and how to start (SRC 52).

My ESP lecturers had restricted networking with external resource persons in ESP from different cultural contexts. They are from the English department and teach English at the Nursing department. So, they did not have a connection to overseas nurses who speak English (SRC 47).

4.2.3. Competence: ESP Lecturers' Perspectives on the Practices and Challenges of Promoting Competence

In the interview, the lecturers mentioned that using YouTube in ESP teaching could enhance learners' English and specific contents ($n = 55$), and most of them believed that collaborative learning effectively enhanced learners' ESP skills.

Is ($n = 52$), lecturers considered role-play activities as another effective way to foster learners' ESP ($n = 54$), and online project-based learning is a good alternative

to enhance students ESP ($n = 49$). However, lecturers claimed that ESP books designed by general English and content lecturers are not interesting for the students ($n = 32$), most of the lecturers did not have access to wider ESP communities to support students' ESP ($n = 40$), ESP teaching loads and background knowledge became another issue in fostering students' ESP ($n = 54$). The following excerpts indicate ESP lecturers' perspectives of practices (TCP) and challenges (TCC) in promoting learners' competence category.

Combining ESP books and ESP only materials such as using YouTube for listening and speaking class are effective to foster their English and content knowledge (TCP 53).

Assigning my students to work collaboratively using project-based activities and asking them to search on the internet to write an essay on a business plan, for example, can be a good practice to enhance their ESP skills (TCP 48). I have even invited a shop manager to share his experience of becoming a successful manager in his shops to my students via the Zoom platform. My students feel very happy with this model (TCP 49).

I employ a role play strategy to help students grasp the context in which English is used (TCP 31).

I teach two different majors, namely English for accounting and English for nursing. It is too hard for me because I never learned those two specific fields before. It is impossible to work with the content lecturers because they are also busy with their jobs (TCC 2).

I feel unsatisfied with my teaching reading using the ESP textbook because it contains monotonous activities. My students feel bored reading the passage and answering the questions (TCC 21).

4.2.4. Competence: ESP Learners' Perspectives on the Practices and Challenges of Promoting Competence

Most of the students liked to watch YouTube to enhance their specific English ($n = 56$), the students also learned general English from the English learning series ($n = 14$), students liked to have group work, role play, and other communicative activities using technology ($n = 56$), and most of them felt more confident in expressing their ideas during online learning ($n = 52$). Meanwhile, in the interview results on the challenges of competence category, some of the ESP learners highlighted the lack of access to wider ESP communities during their online learning as the main challenges to fostering their ESP competence, and ESP books were not interesting because the contents consisted reading and English skills activities ($n = 39$), low English abilities ($n = 51$). The following excerpts indicate ESP learners' perspectives of practices (SCP) and challenges (SCC) in the category of competence.

I think watching English YouTubes from different sources is good to increase our English and content knowledge (SCP 27).

I like watching American or British English series to enhance my English competence (SCP 16).

I feel that role-play activities, group work and English conversation are good activities to enhance my ESP skills (SCP 7).

With online learning, I get more confident in expressing my opinion in written chat via e-learning because I don't deal directly with instructors or other classmates. So, I can express my ideas according to my pace (SCP 41).

In my Nursing ESP course, my English lecturer never invites doctors or nurses from different countries to share their real activities as a doctor or nurse. Therefore, my ESP class seems ineffective (SCC 15).

I don't have any confidence to speak English because I have a lack of English ability (SCC 55).

It seems very difficult for me to find relevant learning sources for my ESP course (SC 39). YouTube mostly contains general English and the ESP books are very monotonous (SCC 15).

4.2.5. *Autonomy: ESP Lecturers' Perspectives on the Practices and Challenges of Promoting Autonomy*

Most of the lecturers believed that autonomy practices in teaching ESP using an online platform were utilized through giving assignments and evaluating their works ($n = 26$), songs, poems, and movies ($n = 28$), recommending online relevant reading sources, and discussion ($n = 21$). Conversely, regarding lecturers' challenges in promoting learners' autonomy, most of the lecturers mentioned low learners' motivation in ESP ($n = 12$), the lecturers did not know the concept of autonomy ($n = 23$), and students liked explanations from the lecturers ($n = 25$).

I usually give my students speaking and writing assignments and then monitor and evaluate their works. (TAP10)

I did not understand the concept of autonomy practices in my online ESP class (TC 11). I would prefer to involve students in a discussion (TAP4).

I tried to arouse learners' interest in my ESP class through songs, poems and movies so they can learn the real English from them. (TAP162)

I tried to recommend students to regularly read online reading materials which are relevant to their ESP program, but only a few of them would do as I recommend (TP 28). Students are accustomed to the teacher-centered approach in my online teaching (TAC22).

My theoretical and pedagogical knowledge on how ESP should be taught using online platform are quite limited and students have low motivation in ESP online learning (TAC5)

4.2.6 *Autonomy: ESP Learners' Perspectives on the Practices and Challenges of Promoting Autonomy*

Most of the students believed that autonomy practices in learning ESP using online

platforms were implemented using classroom discussion ($n = 56$), songs, poems and movies ($n = 58$). Conversely, regarding learners' challenges in autonomy practices, most students mentioned that they liked listening to lecturers' explanations ($n = 37$) and difficult ESP reading materials ($n = 58$).

My ESP lecturers often give me so many assignments to write paragraphs and to make conversation. (LAP 55)

I like watching movies or listening to my favorite songs and answering the questions or summarizing the story in the movie. (LAP 51)

It is hard for us to understand the ESP reading course without my ESP lecturers' explanation (LAC 45)

I am frustrated in reading my ESP reading course, I have to open up my dictionary, translate every single unfamiliar word, and then read it again and again (LAC 1).

5. Discussion

While extensive studies have investigated the issue of BPN in broader educational contexts using general BPN instruments, the present study tried to explore ESP students' practices and challenges of implementing BPN from the perspectives of lecturers and students using specific BPN for online ESP learning in an EFL unideal situations (general English lecturers who did not have any ESP backgrounds but they had to different ESP courses). The findings of this study contribute to the existing body of knowledge by investigating the application of BPN in the context of online English for Specific Purposes (ESP) instruction, particularly in environments characterized by particular challenges. This research investigates the application of BPN in a unique setting, where an English lecturer without specialized expertise is assigned to teach an English for Specific Purposes (ESP) course.

Based on the findings, there was no consensus in the questionnaire results between the lecturers' and learners' perceptions concerning ESP students' engagement with relevant ESP environments, understanding students' learning difficulties, and progress under the relatedness category. In the interviews, the lecturers claimed that their students had a moderate level of fulfillment regarding learners' engagement with relevant ESP communities and their learning progress, but their students reported low fulfillment in their online learning practices. These differences probably happened because only a small number of lecturers connected their ESP students to real ESP experts or stakeholders to get direct experiences.

Therefore, most of the students mentioned that they never got real ESP experiences from external ESP experts. This finding is commensurate with the sociocultural theory of language learning regarding the students' needs for ESP experts in their classrooms (Alamer, 2021; Tour, 2020; Pan et al., 2023) This study adds specifically the implementation of relatedness within the unideal ESP situations to boost ESP students' English and specific content knowledge by engaging ESP students in wider ESP communities.

Another finding reveals that the students did not feel the needs were being fulfilled regarding their task feedback. This result might happen because the lecturers did not provide adequate and timely feedback on students' online tasks. Therefore, the students apprehended that their lecturers did not regularly provide adequate and timely ESP learning. These findings supported the importance of adequately providing feedback in EFL classes as media to monitor students' learning progress (Tang et al., 2021; Esmaeeli & Sadeghi, 2020; Al-Obaydi et al., 2023; Shakki, 2022) Under the umbrella of relatedness, when the lecturers could not provide relevant feedback concerning ESP students' specific knowledge because they had different educational backgrounds to ESP course, the lecturers could collaborate with content lecturers from internal universities or relevant stakeholders from external universities (ESP experts such as a nurse, doctor, managers, and accountant) to supervise students' specific learning progress. These practices aimed to monitor their students' task completion and learning progress. The lecturers also used contextual materials from YouTube and other interactive activities. These findings follow previous research in EFL and educational settings which reported a high level of relatedness in students' learning (Behzadnia & FatahModares, 2020).

Furthermore, the findings from the second category indicated significant differences between ESP lecturers' and learners' perspectives regarding ESP learners' competence fulfillment. ESP lecturers' perceptions of BPN competence were higher than ESP learners' regarding ESP learners' general and specific English competencies, relevant English skills for their future careers, and English learning goals in both general and Specific English. Interview data supported these aforementioned findings. In addition, another essential finding regarding learning evaluation from the questionnaire indicated that both lecturers and students recognized that their learning evaluation on specific content knowledge was low fulfilled during online learning. Both lecturers and students reported that their

evaluation practices emphasized language focus more than content knowledge. These differences might happen because the lecturers looked at students' general English learning progress as an indicator of ESP competence during online ESP learning.

Meanwhile, the students felt that their specific English needs were not facilitated during ESP learning. Therefore, those differences in perceptions occurred. During online ESP learning, the lecturers need to focus their attention not only on general English but also on specific English. Harmonizing between the needs for general and specific English through utilizing online learning sources could enhance the quality of students with ESP competencies. The interview results also reported that students avoid using English due to a lack of confidence caused by their low English skills and communication experience and the difficulty of having the confidence to communicate with foreigners.

Moreover, ESP learners stated that they lacked confidence in their English-speaking practice due to a lack of prior experience and online opportunities to practice speaking English. Educators can promote learners' competency by providing optimally challenging learning activities that allow students to assess and expand their academic capacities (Niemic & Ryan, 2009). As for the solutions, experimenting with recorded video without being on screen could be a great way to gain learners' confidence and practice speaking in front of an audience for those nervous or anxious about speaking performances (Sun & Yang, 2015). Following that, instructors can begin by providing students opportunities to practice English to build L2 confidence, which can be accomplished through simultaneous breakout room Zoom sessions where students practice communication with one another (Bailey et al., 2021).

Finally, the findings of the last BPN category of autonomy indicated that there were different perceptions between lecturers and students regarding learners' ability to determine their own learning strategies, motivation, and ESP learning needs. As indicated by interview data, the majority of students stated that they practiced autonomy while learning ESP online through listening to music, watching movies, and watching video lessons. Learning English from these media could be effective strategies for the students to establish their motivation, learning needs, and autonomous learning. However, the lecturers should consider two aspects within ESP context, namely general English and specific content. Inability to maintain the two

variables will cause disharmony of learning needs and target ESP learning. Finding general English teaching media like songs, movies, games, and videos could be fine because the contents of those technological resources are suitable for the contents of general English learning, but in the ESP courses, the situation is utterly different because we have to facilitate both English and specific content knowledge to support their autonomous learning (Clément et al., 2020; Van Roy & Zaman, 2019; Burgess-brigham & Eslami, 2020). Autonomy learning practice can be optimized by decreasing the predominance of evaluative pressure and any sense of pressure in the classroom, as well as by increasing learners' views of having a voice and choice in the academic activities in which they participate (Niemic & Ryan, 2009).

Considering one of the statements in the autonomy category, the statement 'the learners liked reviewing their General English and ESP online' had no significant differences between ESP lecturers and learners. The potential explanations are consistent with interviews conducted with both ESP professors and ESP learners. Most lecturers observed low student motivation in ESP, and a lack of familiarity with autonomous learning activities. Students also declared that they preferred explanations from lecturers if they encountered some language learning difficulties. These difficulties might be explained by the particular conditions of online learning, where learner autonomy can become a burden due to the loss of the routine of traditional face-to-face learning (Holzer et al., 2021). The previous study suggested that the realization of compulsory English instruction for non-English majors at Chinese universities emphasizes enhancing college learning autonomy, which needs the collaboration of students, lecturers, institutions, and policymakers (Lin & Reinders, 2019).

6. Conclusion

The unique contribution of this study lies in its specific BPN instrument for online ESP learning in an unideal EFL situation whose lecturers' educational backgrounds are different from the ESP courses they teach. The study's design includes an adequate sample size from four provincial areas. The study also examines how BPNS are implemented in ESP learners' online learning practices. Many of these essential variables were lacking in the previous research.

The present study implies that adapting the BPN to cater to the particular needs of learners in the field of ESP is required to employ a method tailored to individual

circumstances during online ESP instruction. This is particularly pertinent in instances where educators possess limited proficiency in a particular academic discipline. Furthermore, by recognizing the divergent viewpoints held by educators and learners, educational institutions can endeavor to create a more conducive learning environment that effectively caters to ESP learners and enhances their overall educational experiences in mastering English relevant to their discipline.

The distinctive features of BPN for ESP, such as connecting and engaging the students in wider ESP environments with technology to facilitate their English and specific content knowledge, have great potential to help both ESP lecturers and students learn ESP. In order to effectively foster ESP students' learning, the design of a more 'ideal' ESP program using online learning should be carefully developed involving ESP stakeholders from relevant fields, content lecturers, experts, and technology-related materials in line with the needs of English and specific content knowledge.

There are some limitations in the current study. First, the lecturers' responses to the BPN questionnaire may be biased due to their high teaching loads and experiences. A future study using rigorous measures is required to investigate whether lecturers with high teaching loads and experiences perceive similarly or differently the BPN questionnaire if it is compared to those with low teaching loads and experiences. A qualitative study is also needed to comprehensively investigate any potential good practices in ESP under the unideal EFL situations to uncover the implementation of motivational factors using the same specific BPN instrument for ESP. A more comprehensive and ideal BPN ESP using different theoretical frameworks needs to be developed as another alternative to elaborate ESP from the same motivational theory.

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