English for nurse anesthetists in Indonesia: The needs analysis

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ESP is a language teaching approach that targets the current and future academic or work needs of students, focusing on language, skills, discourse, and genres needed to meet the needs through specific teaching and learning methodologies (Anthony, 2015). Thus, the most prominent feature in the design of ESP course is the syllabus based on the students' needs analysis (Basturkmen, 2010). This study aimed to find out the needs of students and lecturers in the Diploma IV of Nursing Anesthesiology also nurse anesthetists in hospitals to design the ESP syllabus for students of Nursing Anesthesiology course in Indonesia. The needs analysis was conducted by distributing a set of questionnaires to all participants. The collected data were analyzed with descriptive statistics and further analyzed based on the comprehensive concept of needs analysis by (Dudley-Evans, T., & St John, 1998). The results revealed that the skills most needed in the target career are speaking and listening. In addition, all the twenty-four topics listed in the questionnaire were regarded as important, including some materials on cultural topics. Based on these findings, it is necessary to develop the ESP course for Indonesian nurse anesthetists with the integration of some cultural materials to help the students developing their communication skills to achieve effective cross-cultural communication in their current academic and future career as nurse anesthetists. English educators teaching this ESP course are recommended to have a fair knowledge about nurse anesthetist and anesthesia-related topics and implement a suitable teaching method emphasizing on teaching effective cross-cultural communication.

Keywords: Needs Analysis, ESP, English for Nurse Anesthetists

INTRODUCTION

The use of English in Indonesia was firstly introduced by the British East India Company in the 17th century which serves as a trading language. English was then taught in a few number of schools – attended particularly by the Dutch and British descendants, and high-class Indonesian nobles during the periods of British and Dutch colonials (Alfarisy, 2021). After the independence of Indonesia in 1945, English was determined as the first foreign language of the country because Dutch was viewed as the language of the colonialists and it did not have the global status that English did (Lauder, 2008). From then, the use of English continues to develop in Indonesia; and globalization, among others, has a great contribution to the rise of English in Indonesia (Juliana & Juliani, 2020). Due to globalization and internationalization, English has a significant role in the society at large, and in particular in international tourism, business, media and education. English has played an important role in Indonesian education as it is a compulsory subject in schools and higher education.

The English course required by university students is not similar to that required by students in elementary or secondary levels. Once the university students complete their study, they will directly enter to a more specific environment, thus they need English course which specifically tailored with the purpose to meet the working needs. This specific English learning is called English for Specific Purpose (ESP). ESP is formed based on English for General Purpose (EGP) and is designed to prepare English language learners who use English for specific disciplines or occupations, such as medicine, nursing, economics, tourism, and so on (Orr, 1998).

The booming of international tourism in Indonesia, especially Bali in 2017 (Guild, 2018) has set Indonesian government to build a more sustainable tourism destinations and infrastructures, including improving health services particularly in the touristy areas, such as Bali and some other tourism destinations in Indonesia. For the past several years, government and private foundations have built several international hospitals such as the Bali Mandara Hospital in 2017 and Bali International Hospital in 2021.

In addition to those 2 hospitals, there are 63 hospitals in Bali that have been fully accredited (Indonesia Hospital Accreditation Commission, 2021); among those there are some have also been internationally accredited such as Sanglah General Hospital - accredited by Joint Commission International and Academic Medical Centre (Indonesia Hospital Accreditation Commision, 2020) and BIMC Hospital Nusa Dua - accredited by Australian Council on Healthcare Standards International (Siloam Hospitals Group, 2016). Since the Bali Bombings and up until before the Covid-19 pandemic, Bali has been continually improving its health services. Thus, more domestic tourists and foreigners are more open to have medical services while vacationing in Bali.

With a history in healing, spirituality and many more, Bali has built a quite reputation as a world-renowned wellness destination (Dragun, 2022). Its reputation as one of Asia's most exciting wellness markets arises from a combination of affordability, diversity, and innovation. The island's reputation as a wellness destination proves that developing new areas of tourism, particularly heath tourism is possible (Sjarief, 2021). The Minister of State-Owned Enterprises, Erick Thohir has stated his intention in developing Bali as a medical-tourism destination as he considered the health tourism market to be quite potential particularly involving older travelers, retired communities, or people who want to get medical treatment or recovery (Cindyara, 2022).

Given the facts on the infrastructure development and the intention in exploring the possibility of developing Indonesia, particularly Bali into a health and medical tourism destination, there is a high demand of English-speaking health practitioners, not only medical doctors, and general nurses, but particularly the nurse anesthesia practitioners or nurse anesthetists. Currently there are only around 4,741 certified nurse anesthetists in Indonesia (Association of Indonesian Nurse Anesthetists, 2021) which

supposedly serving anesthesia in 2,514 general hospitals in all around Indonesia (Badan Pusat Statistik Indonesia, 2021). The ratio is far from ideal as the current number of nurse anesthetists shows that there are many hospitals do not have any nurse anesthetist available to provide anesthesia-related services to the patients.

In the effort to address this issue, the Indonesia Ministry of Education in 2017 has granted the permit to open a new course in the field of anesthesia; the Diploma IV of Nursing Anesthesiology – undergraduate program, 4 years, full time course. The Institute of Technology and Health Bali was the first and only higher education institution that opened the course at that time; and later, this course has also been developed in other places around Indonesia such as in Yogyakarta and Bandung (ITEKES Bali, 2020).

Along with the opening of this new course, ESP learning for the Nursing Anesthesiology students becomes crucial. The main problem encountered by the ESP lecturers in this course is the lack of resources that can be used as learning model materials and teaching materials. Although the materials of Medical English and English for Nurse are common and can be found easily, however, there are many points on the duties of nurse anesthetists which are not covered by the general nurses, hence many specific nurse anesthetist – patient interactions require some mastery in ESP communication. Therefore, it is necessary to conduct needs analysis to find out the needs of learners and as a basis to develop English for Nurse Anesthetists in Indonesia.

English for Specific Purposes (ESP)
In the field of language learning, ESP has a long history. ESP began to develop in the 1960s when general English could not meet the needs of language learners. ESP is defined as an approach to language learning in which the content and teaching methods are based on the reasons learners learn a language (Hutchinson & Waters, 1987). In general, ESP is known as a goal-directed and learner-centered language learning approach because ESP can meet the needs of adult learners who need to learn using the foreign language for their work purposes such as work in the fields of science, technology, hospitality, tourism, and others (Dudley-Evans & St John, 1998). Gatehouse (2001) argues that ESP as a situational language that has been determined based on the interpretation of the results of the authentic language needs analysis used in the target workplace setting. Basturkmen (2010) further explained that the most important thing in the ESP learning design is the syllabus which is prepared based on the results of the needs analysis, because in ESP learning languages are taught to learners to prepare them to enter a more specific language use environment. Needs analysis focuses on the objectives and content of a learning program (Macalister & Nation, 2019).

There are many common approaches used for syllabus design (Flowerdew, 2012). One of those some common approaches and one of the most popular is the Learning-Centered approach (Hutchinson & Waters, 1987). Different from other approaches that put the language items and learners' skills as the focus, the Learning-Centered approach is focused on what the learners must do in class to learn

these processes, where there is an emphasis on meaningful and appropriate content and on communication within the classroom. Another popular approach is the Genre-Based Approach. This approach uses materials and tasks based on authentic linguistic data to promote the awareness of learners of the conventions and procedures of the genre in question.

Besides those two approaches, there is another one which is also commonly used for syllabus design, the Content-Based Syllabus. This approach relates language teaching to the target uses to which the learner will put the language. It requires attention to prior knowledge, existing knowledge, academic environment, and the linguistic proficiency level of the learners (Flowerdew, 2012).

Robinson (2001) stated that prior to the syllabus design step, it is necessary to develop the materials and methodology first, so the process of the course design takes place. Therefore, need analysis is crucial to ESP. Robinson (2001) further argues that there are two key defining criteria which Dudley-Evans, & St. John (1998) found to be true of ESP. First, ESP is usually a goal-directed, in which the learners learn English because they need it for study or work purposes; and second, it is developed based on a needs analysis which intends to get the exact details of what learners really need through the medium of English.

Needs Analysis

Needs analysis emerged as a separate and indispensable stage in organizing educational programs in the 1960s as a component of a systems approach to curriculum development and a broad philosophy of educational responsibility (Richards, 2010). Nunan (1988) claimed that needs analysis is a technique and procedure for gathering information that will be used in the design of the syllabus which is called needs analysis Basturkmen (2010) further stated that needs analysis must pay attention to the formation of communicative needs and their realization, resulting from the analysis of communication in the target situation.

Needs analysis in language learning has a very important role in the process of designing and running a language learning program to suit the needs of language learners. Needs analysis is an important first step in the process of designing a language learning and can provide relevant data about various learning activities made for the program.

Needs analysis for English for health purposes such as English for Nurse has been carried out by several researchers from various countries to make an appropriate English language learning to be applied to nursing students in their respective countries (Showail, 2018; Nurindah et al., 2019).

Showail (2018) conducted empirical research on a needs analysis to develop a course English for Nursing Purposes (ENP) in a nursing college in King Abdul Aziz University, Saudi Arabia. Mix research method was employed through semi-structured interview and questionnaire to investigate the needs of nursing students. Five English teachers, five nursing teachers, and five nursing students were interviewed

in the initial phase. After that, a total of 128 participants consisted of 62 nursing students, 24 nursing tutors, and 42 English teachers were participated in providing response into the questionnaire.

The qualitative and quantitative findings showed that English is extensively used both in nursing studies and target career. The findings also revealed that the nature of English language course that taught in the preliminary program before enrolling the nursing course was insufficient to prepare the nursing students to meet their academic and future professional needs. This study found that it was necessary to implement the ENP course with relevant materials, and ESP teacher training was needed for teaching skill development and appropriate teaching method in the ENP course. Despite the fact that the findings of this research were significant, other factors were not measured in the investigation, such as the teachers' experience or students' gender. This study investigated the English language needs of nursing female students only and did not involve the male students due to restrictions related to the university policy and the gender segregation in Saudi Arabia education system.

Nurindah et al. (2019) investigated the need of English for Nursing Purposes (ENP) at Department of Nursing in Mandala Waluya Health Institution, Kendari, Indonesia. The subjects of the research were 92 pre-clinical students, 27 clinical students, 16 lecturers, and the head of nursing department. Data were collected and analyzed through a mix method. The result found that English was frequently used in various nursing related materials. All parties agreed that ENP was obviously important for nursing education. The findings revealed that all four language skills were important both for the students and the academicians. It was also found that English was required in various nursing related activities in education and the target career. In conclusion, this study proposes a new ENP curriculum based on need analysis obtained from various sources and that the instructor of ENP should have a fairly knowledge of nursing field when teaching ENP.

Language Learning Model based on Needs Analysis

The learning model describes the implementation of the teaching and learning process from beginning to end and reflects the application of an approach, method, technique or learning tactic at once. The model serves as a guide for educators in planning and implementing teaching and learning activities, including methods, techniques or learning tactics and the tools used in the learning (Sudrajat, 2008).

In theoretical studies there are several models of research and development of learning systems; and one of them is the ADDIE Model which stands for Analysis, Design, Development or Production, Implementation and Evaluations developed by Dick & Carey (1996). This model can be used for various forms of product development such as learning models, learning strategies, learning methods, media, and teaching materials.

Canziani (2020) conducted a needs analysis to design a syllabus and teaching material for students attending nursing

course taught in English at the University of Palermo. The participants of this study were 23 students studying nursing at the University of Palermo with varied English proficiency level and came from 8 different countries – Italy, Philippines, Ghana, Gambia, Nigeria, Ukraine, Rumania, and Poland. Due to Covid-19 lockdown in Italy, the data were unable to be collected from the nurse professionals or trainee students, thus all information about the linguistic competence, skills and vocabulary needed by nurses when practicing in clinical settings were retrieved from official documents, such as Nursing Code of Practice (NCP) in UK and American Nurse Association website. Based on the analysis, it was found that the nursing students need a combination of general English and English for Nursing Practice (ENP). Teaching materials were gathered from different sources – American, Canadian, and British nurse websites. Psycholinguistic and linguistic techniques were implemented as teaching strategies aiming at improving the skills of nursing students, both as linguistic mediator between patients and doctors and as effective health communicator, not only to patients, but also their family/relatives, and other health practitioners involved. After the class implementation, students' feedbacks were positive and they were all quite satisfied with the topics included in the syllabus and how the class was managed. In conclusion, although the teaching implementation has been evaluated positive by the students, however, the syllabus could have been improved in some ways. Subsequent research should collect more relevant data directly from the nurse practitioners or trainee students in the clinical settings or conduct direct observation if possible to investigate the specific circumstances in which nurses are required to use the English language. Thus, a more authentic material could be developed for a more successful teaching-learning experience.

Based on the findings of those previous studies, it can be concluded that in the context of learning English, it is necessary to analyze the needs of learners and then design the syllabus and develop appropriate teaching materials. Only by doing so, we can achieve a meaningful and enjoying learning experience for the success of learners, not solely in fulfilling the purpose of their current study but also their target career.

METHODS

Design and Participants
This research was quantitative research with descriptive method. The reason behind this design was the accessibility to the participants. It was impossible on that period to conduct interview or direct clinical observation. During the period of this study, Bali was under travel restriction due to Pandemic Covid 19, and it was impossible to get permission for direct observation of patient-nurse anesthetist communication in the hospital. Conducting interview with the nurse anesthetists was also very challenging due to their demanding schedule, in which all of them were on hospital

on-call, so there was no way we could have set up a one-on-one interview or a sort of focus group discussion with them. Therefore, quantitative design using a questionnaire was considered as the most appropriate method at that time.

Stufflebeam et al. (1985) mentioned that there are four types of needs analysis philosophies: the non-conformity philosophy, democratic philosophy, analytical philosophy, and diagnostic philosophy. This study used the democratic philosophy of students, lecturers, and graduates/professionals to analyze the English materials they need which found to be suitable to their work as nurse anesthetists.

To ensure validity and reliability of the results, data was collected from multiple sources, including students and teaching staffs in the nursing anesthesiology program, and nurse anesthesia practitioners. The populations of this study were the 116 students and 15 teaching staffs in the Diploma IV of Nursing Anesthesiology in Institute of Technology and Health Bali. The nurse anesthetists who work in 2 hospitals in Bali also invited to involve in this study to provide accurate information regarding the specific circumstances and topics in which nurse anesthetists are required to use the English language. These 2 hospitals were chosen because they have an MOU with the institute to cooperate in the field of education, research, and community service. The population of nurse anesthetists in both hospitals was 9 people.

The sample or participants of this study were selected through 2 sampling techniques, census sampling on the students and consecutive sampling on both the teaching staffs and nurse anesthetists in the hospitals. In the end, the total participants involved in this study were 116 students, 4 teachings staffs and 4 nurse anesthesia practitioners from the 2 hospitals in Bali.

Instrument, Data Collection and Data Analysis
The data in this study were collected by using a self-developed questionnaire containing closed-ended questions. The questionnaire consisted of 4 parts: (A) demographic data; (B) identification of strengths and weaknesses of English language skills; (C) situations where English is most used; and (D) English topics that are interesting and important to the respondents.

In developing the questionnaire, some possible content topics of the prospective English for Nurse Anesthetists course were listed. Then two lecturers in the Nursing Anesthesiology course were consulted for feedback and a total of 12 types of activity (part C in questionnaire) and 24 content topics (part D in questionnaire) were included in the final version of questionnaire. It was then proofread by another two experts in the field of anesthesiology for content validity test. The two experts were: (1) a medical doctor specialized in anesthesiology who currently practicing as an anesthesiologist in RSUD Wangaya Hospital in Denpasar, Bali and serving as the Head of Nursing Anesthesiology program in the Institute of Technology and Health Bali; (2) a nurse anesthetisia practitioner who formerly the Director of RSUD Larantuka Hospital in East Nusa Tenggara, and

currently serving as the secretary of Nursing Anesthesiology program in the Institute of Technology and Health Bali.

A pilot test for the instrument was conducted using 30 participants and the reliability test was conducted using the Cronbach Alpha.

The questionnaire was then proven to be valid and reliable to be used for this study (Cronbach Alpha: 0.966 for part C - situations where English is most used; and 0.953 for part D - English topics that are interesting and important to the respondents).

Since the data were collected during the Covid-19 pandemic; and Indonesia, particularly Bali – where this research was carried out was under travel restriction, thus an electronic version of the questionnaire was created via Google Form. The questionnaire was written in the respondents' native language – Indonesian, to ensure their understanding. The collected data were then analyzed through quantitative descriptive data analysis using SPSS.

RESULTS AND DISCUSSION

TABLE 1 | Demographic Profile of Students, Teaching Staffs and Nurse Anesthetists

			Frequency			Total	Percentage
	Variable		**Students**	**Nurses**	**Teaching staff**		
1	Gender	Male	46	3	1	50	39.68%
		Female	71	1	4	76	60.32%
2	Age	21 – 25	114	0	3	117	91%
		26 – 30	4	0	2	6	5%
		> 31	1	4	0	5	4%
3	Studied English (English for Anesthesiology) previously	Yes	100	0	-	100	82.64%
		No	17	4	-	21	17.36%
4	Make efforts to improve English	Yes	116	4	-	120	99.17%
		No	1	0	-	1	0.83%
5	Frequency of practicing English outside of campus or work / week	Not at all	29	2	-	31	26%
		1 – 2 hours	67	0	-	67	55%
		3 – 5 hours	9	0	-	9	7%
		More than 5 hours	12	2	-	14	12%

Table 1 shows the results of the personal data analysis of the respondents. The majority of respondents were female (60.32%) aged 21 – 25 years (91%) and had attended English lessons for Nursing Anesthesiology (82, 64%).

Table 2 shows the strengths and weaknesses in the English skills of students and nurse anesthetists. However, many of them reported that they were weak in grammar (45.5%); and some of them were poor in vocabulary (36.4%), pronunciation (38%), speaking (28.1%) and writing (24%).

TABLE 2 | Current Strength and Weakness towards English Ability

Variable	Students & Nurses						
	Grammar	Vocabulary	Pronunciation	Speaking	Listening	Reading	Writing
Very good	0.0%	0.8%	0.8%	0.8%	1.7%	3.3%	0.8%
Good	5.0%	9.9%	9.1%	11.6%	12.4%	15.7%	12.4%
Fair	42.1%	48.8%	47.1%	50.4%	55.4%	62.0%	61.2%
Weak	45.5%	36.4%	38.0%	33.9%	28.1%	17.4%	24.0%
Very weak	7.4%	4.1%	5.0%	3.3%	2.5%	1.7%	1.7%

The data in table 3 shows a significant difference in the frequency of using English according to the students, nurse anesthetists in hospitals and lecturers in the Nursing Anesthesiology course. Among the 12 situations listed in the questionnaire, the majority of students stated that they seldom used English in these situations. Given the status of these respondents who were students carrying out internships in hospitals, it can be concluded that their

chances of meeting or providing treatments to foreign patients were very small. In addition, the fact that they undergone their clinical practice in some local government-owned hospitals was also the reason that they never or rarely got the chance to provide health services to foreign patients. Most of the patients who went looking for health services in local government-owned hospitals were Indonesian citizens, particularly the residents in the area.

In contrast to students, half of the nurse anesthetists (50%) stated that they frequently used English in situations such as providing health education to patients, interpreting medical terminologies, making presentations, socializing and other matters related to cultural differences with foreign patients. Furthermore, 25% of the nurse anesthesiologists reported that they always used English in situations when communicating with patients and their families, taking anamnesis, and giving instructions to patients effectively, administering drugs, reading, and interpreting reports, charts, drug prescriptions; also writing patients' clinical reports.

This study also found that the lecturers reported similar data as what have reported by the students and nurse anesthetists, in which most lecturers (60%) stated that they frequently used English in situations such as reading and interpreting reports, charts and prescription drugs; and always used English (60%) when interpreting medical terminology / abbreviations. Although the lecturers stated that they frequently and always used English in those afore mentioned situations, however, in other situations, English were rarely used. This can be understood from their work as teaching staffs in the Institute, in which they were accustomed to read articles and reference books in English to gain more knowledge and support the teaching-learning activities. Thus, reading, and interpreting reports, graphs and interpreting medical terms / abbreviations were the situations where they used English most frequently.

TABLE 3 | Frequency of English Use based on Situations

No	Activities / Skills	Percentage (%)														
		Students					Nurses					Teaching Staff				
		0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
1	Interaction with patients / their family members; including educating and explaining medicine interactions	15.4	40.2	17.1	19.7	7.7	0	25	25	25	25	0	0	60	20	20
2	Interaction with fellow co-workers (nurses, doctors, other staff)	11.1	35.0	25.6	17.9	10.3	0	25	50	25	0	0	0	80	0	20
3	Inquiring skills such as anamnesis	10.3	39.3	21.4	18.8	10.3	0	25	25	25	25	0	0	60	20	20
4	Giving instructions effectively	12.8	35.9	26.5	17.1	7.7	0	25	25	25	25	0	0	60	0	40
5	Giving advice/recommendation	10.3	37.6	25.6	18.8	7.7	0	25	25	50	0	0	0	60	0	40
6	Administering medication	10.3	36.8	20.5	17.9	14.5	0	25	25	25	25	0	0	60	0	40
7	Reading and interpreting reports, prescription charts, etc.	12.0	32.5	25.6	23.9	6.0	0	25	25	25	25	0	0	20	60	20
8	Report writing, such as patient's clinical report	12.0	34.2	29.1	17.9	6.8	0	25	25	25	25	0	20	20	40	20
9	Interpreting medical terminologies / abbreviations	11.1	32.5	20.5	29.9	6.0	0	25	25	50	0	0	0	20	20	60
10	Presentation skill	12.0	27.4	33.3	22.2	5.1	0	25	25	50	0	0	0	80	0	20
11	Social skill	16.2	23.1	33.3	18.8	8.5	0	25	25	50	0	0	20	80	0	0
12	Cultural differences	13.7	29.1	27.4	22.2	7.7	0	25	25	50	0	0	20	80	0	0

0	not applicable
1	never
2	seldom
3	frequent
4	Always

[Table 4](#) shows that the majority of respondents: students, nurse anesthetists and lecturers (≥75%) stated that the twenty-four topics listed in the questionnaire were important and interesting and need to be included in the module English for Nurse Anesthetists. Only on the topic Introduction and Objective of the module, there were relatively quite a big number of respondents thought that this topic was important but boring (25% of student, 25% of nurse anesthetists and 60% of lecturer).

TABLE 4 | Important and interesting topics that should be   included in the ESP course

No	TOPIC	Percentage (%)								
		Students			**Nurses**			**Teaching Staff**		
		I, I	I, B	N I	I, I	I, B	N I	I, I	I, B	N I
1	Introduction and objectives of this module	70.9	25.6	3.4	75	25	0	40	60	0
2	General duties of nurse anesthetists	84.6	11.1	4.3	100	0	0	40	60	0
3	Giving directions and names of wards in hospital	82.1	13.7	4.3	100	0	0	80	20	0
4	Description of time, date and schedule	78.6	15.4	6.0	100	0	0	80	0	20
5	Establishing relationship with patients	87.2	9.4	3.4	100	0	0	80	0	20
6	Filling up forms; e.g.: pain assessment form.	82.9	15.4	1.7	100	0	0	80	0	20
7	Checking patient's personal data	82.1	14.5	3.4	100	0	0	80	20	0
8	Physical assessment	81.2	14.5	4.3	100	0	0	80	20	0
9	Inquiring and reporting health problems	82.9	13.7	3.4	100	0	0	80	0	20
10	Body parts	78.6	12.8	8.5	100	0	0	80	20	0
11	Inquiring and explaining vital signs	85.5	10.3	4.3	100	0	0	80	20	0
12	Explaining medication / anesthesia	83.8	13.7	2.6	100	0	0	80	0	20
13	Asking health problems and dimension of symptoms	86.3	9.4	4.3	100	0	0	80	0	20
14	Pronunciation and description of medical equipment	84.6	13.7	1.7	100	0	0	80	20	0
15	Pain assessment and description	88.0	10.3	1.7	100	0	0	80	20	0
16	Management of pain treatment	85.5	12.8	1.7	100	0	0	80	0	20
17	Monitoring patient's condition after administration of anesthesia	85.5	12.8	1.7	100	0	0	80	0	20
18	Giving injection	82.1	14.5	3.4	100	0	0	80	20	0
19	Applying infusion / IV	80.3	13.7	6.0	100	0	0	80	20	0
20	Patient's Assessment 1: Breath, Brain, Blood	84.6	12.0	3.4	100	0	0	80	20	0
21	Patient's Assessment 2: Bowel, Bladder, Bone	85.5	12.0	2.6	100	0	0	80	20	0
22	Promoting Personal Hygiene	82.1	12.8	5.1	75	0	25	80	20	0
23	Explaining Post-Operative Pain Management	84.6	12.8	2.6	100	0	0	80	0	20
24	Explaining discharge planning to ambulatory anesthesia patients	86.3	10.3	3.4	100	0	0	80	0	20
	I, I	Important, Interesting								
	I, B	Important, Boring								
	NI	Not Interesting								

Students' Needs in English for Nurse Anesthetist

The findings of this study suggest that it is necessary to include all four language skills: speaking, listening, writing, and reading in the module English for Nurse Anesthetist. In addition, grammar, and pronunciation improvement also medical-anesthesia related vocabularies enrichment is necessary to improve the learner's English proficiency level.

This study also revealed that the nurse anesthetists often used English in various situations such as providing health education to patients, interpreting medical terminologies and abbreviations and other matters related to cross-cultural communication. Furthermore, 25% of nurse anesthetists in this study also reported that they have always been using English in situations when communicating with patients and patients' families, taking anamnesis, giving instructions to patients, administering medicines, and writing patients' clinical reports. These findings suggest that speaking and listening skills are the two skills that they often used in their daily activities.

These findings are consistent with the results of previous studies. Showail (2018) found that English was used significantly by the nurse both in their academic and professional life, particularly spoken English. Huang & Yu (2023) also conducted research in needs analysis to create a communication-focused ESP course for Chinese nursing students. They emphasized that it is important to understand nursing students' actual communicative practice in forming partnership with patients during clinical communication. In this study, they focused on Chinese nursing students'

communication patterns of establishing nurse-patient partnership during injection events.

The results of this study and some of those previous studies show that working as either general nurses or nurse anesthetists require a good speaking skill. Along with the speaking skill, good listening skill is also essential, because effective communication requires not only the ability to speak, but also to listen and comprehend the utterances spoken by the person they talk to. Only then, they can avoid misunderstanding and minimalize errors in treating and caring for the patients. It is commonly known that in undertaking their duties, both general nurses and nurse anesthetists often find themselves must provide therapeutic communication to their patients, such as helping patients to cope with pre-operative anesthesia or post-operative pain, which help patients feel less anxious and more relaxed when undergoing operation or managing their pain after the surgery.

Besides speaking and listening, writing, and reading are also the skills that need to be mastered, as all respondents reported that they frequently read medical reports and interpreting charts. The group of nurse anesthetists even reported that they often use English to write and read such report on anamnesis, anesthesia administration, post-operative monitoring, etc. Along with all these 4 skills, the need to master the English grammar and expand their vocabularies on anesthesia-related terminologies becomes something fundamental and important to enabling effective communication in English.

In addition to the use of English in those various situations, the study also found that all 24 topics listed in the questionnaire are important and interesting and need to be covered in the module. Although all topics were agreed to be important, however, there was a relatively significant number of respondents: 25% of students, 25% of nurse anesthetists and 60% of lecturers reported that the topic of module introduction sounded tedious. Therefore, the topic of module introduction should remain be included, however, it needs to be integrated with relevant materials and to be delivered in certain method so as not to bore the learners.

Based on all those findings, the design of syllabus for teaching English for Nurse Anesthetists must be made by considering the needs of learners; not simply to improve their English proficiency, but also to aid them in building good relationship and having effective interactions with patients and people that they will encounter at their future profession. To achieve those goals, another thing that we need to take into account is adapting the learning topics into situations in the real clinical settings.

Syllabus Development based on Needs
The first two skills which need improvement are speaking and listening. Communication is a key part in providing care

to patients (Tetteh et al., 2021), thus, nurse anesthetist–patient communication is a major focus on this current ESP course design. In clinical settings, the nurse anesthetist–patient communication is vital to build the nurse anesthetist–patient relationship and improve patients' overall medical experience (Alshammari et al., 2019). Regardless of the language context, it is through communication that nurse anesthetists can understand patients' symptoms, such as pre- and post-operative pain, and then address their physical problems and emotional needs (Huang & Pun, 2022). Therefore, in communicating with patients, building partnership with patients is a major goal of nursing and is of relevance to the patient-centered model, which is prioritized in the present-day healthcare. In delivering patient-centered care, healthcare providers need to communicate and treat the patient as a unique individual, and to address patient needs.

To meet the needs of students in practicing effective communication, a diverse collection of audio and video is required so students can see and listen to what oral communication using English looks like in the real world, particularly those related to the nurse anesthetists' communication in their real work settings. A wide range of videos could be collected form the American Association of Nurse Anesthesiology (AANA) and Certified Registered Nurse Anesthetists (CRNA) official website or YouTube. English TV-series or movies related to medical/health personnel such as Grey's Anatomy, Dr. House, The Good Doctor, and Nurse are also useful sources not only for speaking and listening practice, but also for medical terminologies and anesthesia-related vocabularies.

Another assignment such as meeting foreigners whose first or second language is English will also be beneficial. Students will be assigned to bring these foreigners to class. In class, the students and foreigners will do role plays such as nurse anesthetist – patient interaction in pain assessment or pre-operative assessment; in which all students will have to take notes on words they cannot hear well or understand. This kind of role play can be set as a group assignment. Integrating speaking practice with pronunciation and listening practice through role playing is a good scenario. The foreigners will be the indicator in assessing students' pronunciation and vice versa. When students do not understand what is being conveyed by the foreigner, then students will immediately know that there are words / terminologies they do not understand, thus students directly learn to improve their listening skill.

Besides improvement in speaking, listening and pronunciation, improvement on writing and grammar knowledge is also essential. In their daily work, the nurse anesthetists must write patient reports - such as medical history, history of drugs/anesthesia allergies, also pre- and post-operative physical examinations in English. Composing

good writing using the correct grammar will avoid misunderstandings and minimize the occurrence of errors in medical reports, such as anesthesia/pain relief administration, etc. To improve the writing skill and expand their knowledge on grammar, topics related to descriptive and expository writing should be developed. It is hoped that with these two new topics, students can write explanatory texts that describe and provide information to whoever needed. Some assignments to fill in patient report case samples should also be given to enrich their vocabulary, especially anesthesia-related terminologies, and abbreviations.

These exercises are also appropriate for other findings, such as the frequency of using English based on the situations they have experienced. All subjects involved in this research reported that they often use English in situations of interpreting medical terminologies and abbreviations, reading and interpreting reports, charts, drug prescriptions, etc. In addition, their work – be it as students or lecturers or nurse anesthetists also requires them to frequently read and seek information through articles or reference reports that are often available in English. These findings indicate that materials or topics on medical terminology and reading and interpretation of reports are two topics that must be included in the ESP course. This kind of materials and topics would have also been beneficial to exercise the students' ability in reading, particularly academic reading which relevant to their target career.

In addition to those learning activities, it is also necessary to consider some other aspects such as cultural differences and social skill. The majority of nurse anesthetists involved in this study reported that they need to socialize with their patients and cultural differences is one of many other conditions which need to be addressed. Cultural competence is one of many competences that a nurse must have. The importance of cultural competence in nursing focuses on health equity through patient-centered care, which requires seeing each patient as a unique person (Novieastari et al., 2018). The more the nurses know about the sociocultural background of their patients, the easier it is to get involved, show sympathy and care through certain ways of speaking; allowing them to interact effectively and gain the trust, thus able to deliver services appropriately, which leading to a better treatment and patient's satisfaction.

Research shows significant benefits resulting from culturally competent nursing care, such as promoting mutual respect, understanding, and trust; encouraging inclusion and patient and family responsibilities for their health; and increasing community involvement in health issues (Okere, 2022). Culturally competent nurse anesthetists will have the influence to improve the quality of anesthesia care leading to better health outcomes for culturally diverse patients. Nurse

anesthetists who accept and uphold the cultural values and beliefs of their patients are more likely to develop supportive and trusting relationships with their patients. In turn, this opens the way for optimal pre-operative and intra-operative procedure, post-operative pain management and prevention of any complications due to anesthesia, which eventually leads towards positive health outcomes for all patients. Therefore, some cultural topics and social skill merit to be included in the syllabus and exercised thoroughly in the learning activities to develop their communication skills to achieve interaction among cultures.

To make students understand culture, we need to go further beyond the textbook and dictionaries. There is a wide range of alternative resources to get relevant information about some cultures, such as movies, newspaper, and magazines, traveling blogs, also native persons which could be invited to be present in the classroom to share some information about their culture. A couple of sessions of having a foreigner in the class will be another enjoyable experience for students as this activity may create such exciting atmosphere due to the presence of foreigners among them while they learn speaking, listening, pronunciation and culture, all at once.

CONCLUSION

Combining all data provided by the students, teaching staffs and nurse anesthetists through the needs analysis questionnaire, there are several aspects that are necessary to be included in the syllabus to shape the ESP course and these are: the skills most needed for their occupation as nurse anesthetists are speaking and listening in the context of the course should be designed not only for inpatient situations but also outpatient situations, such as services in ambulatory anesthesia or one-day care anesthesia. The findings also showed that all 24 topics listed on the questionnaire are regarded as important to be covered in the course. Among those topics are the inquiring skill used to collect information (i.e., information on medical and allergy history, signs, and symptoms, etc.), explanations about anesthesia, pain management, giving instructions, also ambulatory anesthesia. Some materials on cultural differences also merit to be included to expand their knowledge and help them to understand the culture of other countries. A better understanding towards the culture of others is found to be useful to achieve effective cross-cultural communication in the students' target profession and leads towards positive health outcomes for all patients.

Although this study has provided us with some insights about what should be included in the ESP course English for Nurse Anesthetists, however, some limitations and future improvement need to be addressed, particularly related to the research design and participants. This study involves a structured questionnaire with close-ended questions which leads to limited outcomes, thus the results cannot always represent the actual occurrence in a generalized form. Also,

the participants have limited options for responses, based on the selection provided in the questionnaire. A mix-method with in-depth interview and observation on real clinical settings would create a more meaningful result. Future research should expand and triangulate the methods of data collection and conduct the research with bigger size of participants, particularly the nurse anesthetists in hospitals to gain a more comprehensive understanding on the use of English in their daily work life.

From the viewpoint of language educators, teaching ESP is not similar to teaching general English as it requires more knowledge and information about the specific field being taught and a suitable teaching method. Although such training for ESP educator does not commonly available in Indonesia, however, ESP educator must have a fair knowledge about the specific field, or in this case about nurse anesthetist and anesthesia-related topics. Such information could be collected from various sources such as the teaching staffs in the Nursing Anesthesiology program, books, AANA websites and verified vlogs about CRNA in America, UK and Australia, and other relevant and credible sources.

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REFERENCES

Alfarisy, F. (2021). Kebijakan Pembelajaran Bahasa Inggris di Indonesia dalam Perspektif Pembentukan Warga Dunia dengan Kompetensi Antarbudaya. *Jurnal Ilmiah Profesi Pendidikan, 6*(3), 303–313. https://doi.org/10.29303/jipp.v6i3.207

Alshammari, M., Duff, J., & Guilhermino, M. (2019). Barriers to nurse-patient communication in Saudi Arabia: An integrative review. *BMC Nursing, 18*(1), 1–10. https://doi.org/10.1186/s12912-019-0385-4

Anthony, L. (2015). The Changing Role and Importance of ESP in Asia. *English as a Global Language Education, 1*(11), 1–21. https://doi.org/https://doi.org/10.6294/EaGLE.2015.0101.01

Association of Indonesian Nurse Anesthetists. (2021). Overview: IPAI members in Indonesia. https://www.ikatanpenataanestesiindonesia.org/

Badan Pusat Statistik Indonesia [Statistics Indonesia]. (2021). Jumlah Rumah Sakit Umum, Rumah Sakit Khusus, Puskesmas, Klinik Pratama, dan Posyandu Menurut Provinsi, 2021 [Number of General Hospital, Specialized Hospital, Public Health Center, Primary Clinic, and Integrated Health Post by Province, 2021].

https://www.bps.go.id/indikator/indikator/view_data_pub/0000/api_pub/biszcFRCUnVKUXNnTDZvWnA3ZWtyUT09/da_04/1

Basturkmen, H. (2010). *Developing Courses in English for Specific Purposes*. Palgrave Macmillan. https://doi.org/https://doi.org/10.1057/9780230290518

Canziani, T. (2020). *English for Nurses : Needs Analysis and Syllabus*. 28–43. https://eujournal.org/index.php/esj/article/view/14090

Cindyara, A. (2022). *Indonesia to Establish World-Class Health Tourism SEZ.* Antara News. https://kalsel.antaranews.com/berita/348157/indonesia-to-establish-world-class-health-tourism-sez

Dick, W., & Carey, L. (1996). *The Systematic Design of Instruction (4th ed.)*. Harper Collins College Publishers. https://books.google.co.id/books/about/The_Systematic_Design_of_Instruction.html?id=fw9KAAAAYAAJ&redir_esc=y

Dragun, N. (2022). The 11 Best International Wellness Travel Destinations. Australia and New Zealand Robb Report. https://robbreport.com.au/travel/the-11-best-international-wellness-travel-destinations/

Dudley-Evans, T., & St John, M. (1998). *Developments in ESP: A Multi-Diciplinary Approach*. Cambridge University Press. https://assets.cambridge.org/97805215/96756/excerpt/9780521596756_excerpt.pdf

Flowerdew, L. (2012). Needs Analysis and Curriculum Development in ESP. In B. Paltridge & S. Starfield (Eds.), The Handbook of English for Specific Purposes (pp. 325–346). John Wiley & Sons, Inc. https://doi.org/10.1002/9781118339855.ch17

Gatehouse, K. (2001). Key Issues in English for Specific Purposes (ESP) Curriculum Development. *The Internet TESL Journal, VII*(10). http://iteslj.org/Articles/Gatehouse-ESP.html

Guild, J. (2018). Indonesia's Booming Tourism Industry. The Diplomat. https://thediplomat.com/2018/06/indonesias-booming-tourism-industry/

Huang, Q., & Pun, J. (2022). Views of Hospital Nurses and Nursing Students on Nursing Engagement—Bridging the Gap Through Communication Courses. *Frontiers in Psychology, 13*. https://doi.org/10.3389/fpsyg.2022.915147

Huang, Q., & Yu, Q. J. (2023). Towards a communication-focused ESP course for nursing students in building partnership with patients: A needs analysis. *English for Specific Purposes, 70*, 57–69. https://doi.org/https://doi.org/10.1016/j.esp.2022.11.006

Hutchinson, T., & Waters, A. (1987). *English for Specific Purposes*. Cambridge University Press. https://assets.cambridge.org/97805213/18372/excerpt/9780521318372_excerpt.pdf

Indonesia Hospital Accreditation Commision. (2020). List of Accredited Hospital (Daftar Rumah Sakit Terakreditasi).

http://akreditasi.kars.or.id/application/report/report_accredited.php

ITEKES Bali. (2020). Diploma IV of Nursing Anesthesiology. https://itekes-bali.ac.id/prodi_detail/div-keperawatan-anastesiologi
Juliana, R., & Juliani, R. (2020). Penerapan General English and English for Specific Purposes di Perguruan Tinggi Khususnya pada Pendidikan Vokasi [The Application of General English and English for Specific Purposes in Higher Education, Particularly in Vocational Education]. *Vocational Education and Technology Journal, 1*(2), 14–20. https://doi.org/10.38038/vocatech.v1i2.26

Lauder, A. (2008). the Status and Function of English in Indonesia: a Review of Key Factors. *Makara Human Behavior Studies in Asia, 12*(1), 9. https://doi.org/10.7454/mssh.v12i1.128

Macalister, J., & Nation, I. S. P. (2019). *Language Curriculum Design*. In Language Curriculum Design. Routledge. https://doi.org/10.4324/9780429203763

Novieastari, E., Gunawijaya, J., & Indracahyani, A. (2018). Pelatihan Asuhan Keperawatan Peka Budaya Efektif Meningkatkan Kompetensi Kultural Perawat [The Effectiveness of Culturaly Sensitive Nursing Care Training in Improving the Cultural Competence of Nurses]. *Jurnal Keperawatan Indonesia [Journal of Nursing Indonesia], 21*(1), 27–33. https://doi.org/10.7454/jki.v21i1.484

Nunan, D. (1988). *Syllabus Design*. Oxford University Press. https://vulms.vu.edu.pk

Nurindah, Suhartini, L., & Nggawu, L. O. (2019). English for nursing purposes (enp): Investigating the students, academicians, and administrators language needs at mandala waluya health institution. *Asian ESP Journal, 15*(1), 248–271. https://www.asian-esp-journal.com/volume-15-issue-1-2-june-2019/%0D%0A%0D%0A

Okere, C. A. (2022). Cultural competence in nursing care: Looking beyond practice. *Clinical Nurse Specialist*, *36*(6), 285-289. https://doi.org/10.1097/NUR.0000000000000706

Orr, T. (1998). ESP for Japanese Universities: A Guide for Intelligent Reform. *The Language Teacher, 22*(11). https://jalt-publications.org/tlt/articles/2428-esp-japanese-universities-guide-intelligent-reform.

Richards, J. C. (2010). Curriculum Development in Language Teaching. In Curriculum Development in Language Teaching. Cambridge University Press. https://doi.org/10.1017/CBO9780511667220

Robinson, P. (2001). *ESP Today: A Practitioner 's Guide.* Prentice-Hall. https://worldcat.org/title/24379388

Showail, H. (2018). Q&I DoE Exeter The Need for English for Nursing Purposes Course in a Saudi Arabian Nursing College. 1–308. https://ore.exeter.ac.uk/repository/bitstream/handle/10871/40501/ShowailH.pdf?sequence=1

Siloam Hospitals Group. (2016). BIMC Siloam Nusa Dua. Siloam Hospitals.Com. https://bimcbali.com/news-update/bimc-passes-check.html

Sjarief, B. (2021). *Can Bali Become a Global Medical Tourism Destination? Bali Now*. https://www.nowbali.co.id/can-bali-become-a-global-medical-tourism-destination/

Stufflebeam, D. L., McCormick, C. H., Brinkerhoff, R. O., & Nelson, C. O. (2012). *Conducting educational needs assessments* (Vol. 10). Springer Science & Business Media. https://doi.org/10.1007/978-94-011-7807-5

Sudrajat, A. (2008). *Pengertian Pendekatan, Strategi, Metode, Teknik dan Model Pembelajaran [Understanding Approaches, Strategies, Methods, Techniques and Learning Models]*. In Bandung : Sinar Baru Algensindo. Sinar Baru Algensindo. https://akhmadsudrajat.wordpress.com/2008/09/12/pendekatan-strategi-metode-teknik-dan-model-pembelajaran/comment-page-29/

Tetteh, L., Aziato, L., Mensah, G. P., Vehviläinen-Julkunen, K., & Kwegyir-Afful, E. (2021). Burns pain management: The role of nurse–patient communication. *Burns, 47*(6), 1416–1423. https://doi.org/https://doi.org/10.1016/j.burns.2020.11.011