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AN ANALYSIS OF TEACHER TALK IN EFL CLASS - A THEORETICAL FRAMEWORK

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ABSTRACT

Teacher talk is of vital importance to language learning, and it serves a fundamental role in the process of language acquisition as stated by Nunan (1991).

It is argued that in EFL classroom contexts, teacher talk should be carefully considered and should concentrate on its quality in promoting L2 input. However, the majority of previous studies mainly focused on the excessive teacher talking time while there is a limited number of studies discussing the relationship between teacher talk and student's language learning.

Therefore, this research intends to suggest a theoretical framework, in which the teacher talk features and their influences on student learning could be examined. As indicated from the theoretical framework, teacher talk could be presented either directly or indirectly by the teacher which would consequently discourage or promote student participation in class.

Keywords: teacher talk, classroom interaction

INTRODUCTION

In recent years, although there has been an advocacy of “learner-centered” teaching approach in English language teaching, teachers still perform a significant role in developing students’ language output through a unique medium that is teacher talk.

According to Nunan (1991), teacher talk is essential for not only the organization of the classroom but also the process of language acquisition. Therefore, the use of it can have either positive or negative influences on students’ language output.

When investigating the effect of teacher talk on student learning, it is worth considering both the quality and quantity of teacher talk. Most present studies tend to focus on the excessive teacher talking time and criticize that this domination would result in disadvantageous outcomes on students’ language learning. However, these findings seem not to convincingly reflect the quality of teacher talk as well as its influence on student’s language learning in class.

Therefore, this paper is intended to provide a theoretical framework, in which teacher talk features and their effects on student learning could be analyzed. From a practical view, this framework hopefully could assist teachers in evaluating the quality of their talk, thus aiding them to better adjust and perform their verbal behaviors in a way that can promote student learning in class.

TEACHER TALK AND ITS ROLES

As defined in The Longman Dictionary of Language Teaching and Applied Linguistics, teacher talk is “that variety of language sometimes used by teachers when they are in the process of teaching”. It is the language of the teacher in the classroom that accounts for the majority of class time to convey information to learners, give directions, explain activities and check students’ understanding and control learner behavior (Sinclair & Brazil, 1982).

Teacher talk is presented in class in different stages such as teacher’s classroom management, teacher’s delivery of instructions, teacher’s transfer of knowledge, teacher’s interaction with students and teacher’s responding to students’ answers. In general, teachers are likely to employ the target language for two main purposes: promoting their

communication with learners (by helping their learners practice the language by responding to what they say) and encouraging the communication between learners and themselves.

According to Nunan (1991), teacher talk plays a fundamental role in the process of language acquisition. “Teacher talk is of crucial importance, not only for the organization of the classroom but also for the processes of acquisition. It is important for the organization and management of the classroom because it is through language that teachers either succeed or fail in implementing their teaching plans. In terms of acquisition, teacher talk is important because it is probably the major source of comprehensible target language input the learner is likely to receive.”

Therefore, it can be inferred that teacher talk in the EFL classroom serves at least three functions. First, it plays the role of valuable input for the target language exposure. Second, it helps to make the input comprehensible and consequently create the favorable condition for the learning to take place. Third, it can assist to organize and manage class activities as well as stimulate the interaction in class.

However, as shown by numerous previous studies, teacher talk can result in some negative impacts in the classroom since excessive teacher talking time (TTT) could deprive students of opportunities to speak. Therefore, not only the quantity of teacher talk but also the quality needs to be put into careful consideration in the interaction between teacher and students in the classroom.

A THEORETICAL FRAMEWORK TO ANALYZE TEACHER TALK

In order to analyze classroom interaction as well as teacher talk, there is one well-known framework, namely FLint (Foreign Language interaction) system proposed by Moskowitz in 1971.

FLint system is comprised of thirteen categories; seven of which are teacher talk; two of which are student talk; and the last is silence or confusion in the classroom.

The seven categories of teacher talk are further classified into two main groups, namely indirect and direct influence which indicate the extent of students’ freedom given through

teacher's verbal behaviors. The former includes categories: 1) deals with feelings, 2) praises and encourages, 3) uses ideas of students and 4) asks questions. The latter involves categories: 5) giving information, 6) giving directions and 7) criticizing student behavior.

Indirect influence promotes students' freedom in class while direct influence restricts students' exercise of freedom.

Regarding student talk, there are two categories: 8) Student response, specific and 9) Student response - open-ended or student-initiated. These two categories refer to the types of questions posed by the teacher such as close ended or open ended questions that students answer in class.

Lastly, there are three extra features assumed to be combined with a number of categories of teacher and students talk. They involve silence (including silence during audio visual equipment playing time), confusion: work-oriented or non-work oriented confusion, laughter, the use of the native language, and nonverbal gestures.

After careful consideration, in order to facilitate the researcher's observation, certain categories of teacher talk are further classified into stages of the typical classroom discourse between the teacher and learner – Initiation-Response-Feedback. Thus, a theoretical framework to analyze teacher talk was adapted from FLint as follows,

A theoretical framework to analyze teacher talk (adapted from FLint)

Teacher talk		1. Deals with feelings: in a non-threatening way, accepting, discussing, referring to or communicating understanding of past, present, or future feelings students. • <i>Feedback:</i> 2. Praises or encourages: Praising, complimenting, telling students why what they have said or down is valued. Encouraging students to continue, trying to give them confidence, confirming that answers are correct. Jokes: Intentional joking, kidding, making puns,
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	Indirect influence	attempting to be humorous, providing the joking is not anyone's expense. (Unintentional humor is not included in this category.) 3. Uses ideas of students: Clarifying, using, interpreting, summarizing the ideas of students. The ideas must be rephrased by the teacher but still be recognized as being student contributions. Repeats student response verbatim: Repeating the exact words of students after they participate. <i>Initiation/Feedback:</i> 4. Asks questions: asking questions to which the answer is anticipated. (Rhetorical questions are NOT included in this category.)
	Direct influence	<i>Initiation/Feedback:</i> 5. Gives information: giving information, facts, own opinion, or ideas: lecturing or asking rhetorical questions, telling students who have made mistakes the correct response without using words or intonations which communicate criticism. 6. Gives directions: Giving directions requests or commands that students are expected to follow; directing various drills; facilitating whole-class and small-group activity. 7. Criticizes student behavior: Rejecting the behavior of students; trying to change the non-acceptable behavior; communicating anger, displeasure, annoyance, dissatisfaction with what students are doing. Criticizes student response: telling the student his or her

		response is not correct or acceptable and communicating criticism, displeasure, annoyance, rejection by words or intonation.
Student talk		8. Student response, specific: Responding to the teacher within a specific and limited range of available or previously practiced answers. Reading aloud, dictation, drills. Student response, choral: Choral response by the total class or part of the class. 9. Student response - open-ended or student-initiated: responding to the teacher with students' own ideas, opinions, reactions, feelings. Giving one from among many possible answers that have been previously practiced but from which students must now make a selection. Initiating the participation.
Silence or confusion		10. Silence: Pauses in the interaction. Periods of quite during which there is no verbal interaction. Silence-Audiovisual: Silence in the interaction during which a piece of audiovisual equipment, e.g., a tape recorder, filmstrip projector, record player, etc., is being used to communicate. Confusion, work-oriented: More than one person at a time talking, so the interaction cannot be recorded. Students calling out excitedly, eager to participate or respond, concerned with the task at hand. Confusion, non-work-oriented: More than one person at a time talking so the interaction cannot be recorded. Students out of order, not behaving as the teacher wishes, not concerned

		with the task at hand.
		These categories are always combined with one of the categories from 1 to 9. 11. Laughter: Laughing and giggling by the class, individuals, and/or the teacher. 12. Uses the native language: Use the native language by the teacher or the students. 13. Nonverbal: Gestures or facial expressions by the teacher or the students that communicate without the use of words.

Indirect influence refers to teacher talk actions that encourage learners and expand their opportunities to participate in class activities as well as in the interaction with the teacher, which is beneficial for student learning. In contrast, direct influence demonstrates teacher talk practices that limit the actions of learners and restrict their participation and interaction in the classroom, which is disadvantageous to student learning.

Hence, this model can be employed for the purpose of observing and analyzing the classroom interaction. It can be used as a reflection for teachers to notice what kind of verbal interaction they use and what kind of response is given by the students in class, from which a conclusion about the impact of such behaviors on student learning could be reached.

CONCLUSION

In conclusion, when evaluating the impact of teacher talk on student learning, it is essential to analyze not only its quantity but also its quality, which could be achieved by examining the teacher talk practices falling into indirect and direct influence categories.

If teachers perform more indirect teacher talk which includes dealing with feelings, praising and encouraging, using ideas of students and asking questions, they are promoting student's participation in the process of language acquisition. In contrast, should teachers

utilize more direct teacher talk which comprises giving information, giving directions and criticizing student behavior, it can be indicated that student learning to a certain extent is being obstructed by the teacher.

Thus, a careful examination of such teacher talk behaviors could support teachers in their conduction of effective classroom interaction that can promote student learning.

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AN INVESTIGATION INTO CHALLENGES IN LISTENING COMPREHENSION AMONG ENGLISH-MAJORED FRESHMEN AT UNIVERSITY OF LANGUAGES AND INTERNATIONAL STUDIES

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ABSTRACT

Listening comprehension skill has become a great concern to not only learners but also language teachers recently. People used to narrow down the assessment of one's language ability to reading and writing skills, as only the two skills have official assessment in schools and education systems. However, with the tremendous growth of communication in the technological era, people are reconsidering the necessity of speaking and listening skills for their practicality. In the context of ULIS, especially FELTE students who are majored in the English language, listening comprehension skill has become a critical issue. This study aims at identifying challenges that the students encounter the most in their learning of listening skills, specifically from four factors: the learner, the speaker, the material, and the physical setting. The participants comprised 150 mainstream first-year students majoring in English Language. The instrument of the data collection was a survey-questionnaire, which was considered the most effective and common method of collecting data on attitudes and opinions (Makey & Gass, 2005). The findings of this research would reveal the difficulties that ULIS first-year students encounter the most.

Keywords: listening comprehension, difficulty, English-majored first-year students

CHAPTER 1: INTRODUCTION

In this chapter, brief information about the paper is provided. Five main points presented are (1) statement of the problem and rationale for the study, (2) research aims and research questions, (3) research design, (4) significance of the study and (5) outline of the research paper.

1.1 Statement of the problem and rationale for the study

Listening plays a pivotal role in human's daily life. It serves numerous different purposes such as a means of communication, a source of entertainment, an useful tool to achieve academic purposes or to obtain information. It is estimated that of the total time spent on communicating, listening accounts for 40-50%; speaking: 25-30%; reading: 11-16% and writing: about 9% (Gilakjani & Ahmadi, 2011). This finding was supported by Wolvin and Coakley (1988) who confirmed that listening consumes more of daily communication time than other forms of human communication. Moreover, Morley (1999), together with Scarcella and Oxford (1992), claims that listening is the most frequently used skill in daily life communication. In addition, according to Devine (1982), listening is the primary means by which people absorb incoming ideas and information. Furthermore, gaining effective listening skills is of paramount importance for students to achieve academic success (Ferris, 1998; Coakley & Wolvin, 1997; Ferris & Tagg, 1996).

When it comes to foreign language learning, listening is also an indispensable part because it provides the language input for learners (Rost, 1994). Without the ability to absorb the input, language learners can never successfully acquire the language (Krashen, et al., 1984). However, it is by no means easy for language learners to master listening skills as listening is a complicated process requiring a combination of different cognitive skills and types of knowledge (Graham & Macaro, 2008; Field, 2008; Vandergrift, 1999). Hence, language learners, especially those who learn English as a foreign language in a non-native environment where real practice chances are narrow, have considerable difficulties in acquiring good listening skills (Nowrouzi, Tam, Zareian & Nimehchisalem, 2015).

In Vietnam specifically, countryside students have no exposure to English language apart from what they receive in the classroom. Students' fundamental means of listening English come from the teacher's voice. In addition, English teachers in rural areas have a tendency to utilize their mother tongue in English classes to deliver their lessons and explain the grammars or lexical meanings more easily. Hence, students' exposure to spoken English, together with their opportunities to practise listening, is limited. Furthermore, the low quality of cassettes and other listening facilities has a detectable effect on the process of practicing and testing listening, especially in the countryside, where the cassette players are either of poor quality or running out of batteries. As a consequence, students have difficulties in listening because of the low-standard sound. For those reasons, most of the students in rural and mountainous areas, suffer a terrible shock when learning listening skills in the university. In spite of the diversity of literature in this field, little attention has been paid to different types of obstacles that students have to encounter when they take the listening courses at university as well as the frequency of their struggles. Moreover, in the context of University of Languages and International Studies (ULIS), Vietnam National University (VNU), English-majored students are required to take language courses in all four English skills including reading, writing, speaking and listening as early as the first semester of the first year. Unlike at high school when all these four skills are almost integrated into one subject with the focus on reading and writing, at ULIS, listening is one compulsory, separate subject receiving the same amount of attention and focus as other skills. Nevertheless, little research provides a detailed description of first-year students' issues in learning listening. Thus, with the purpose of helping students to be fully aware of their problems and enhance their listening skills, this study, entitled Difficulties in listening comprehension among English-majored freshmen at University of Languages and International Studies, was conducted to raise the

perception of students about the importance of listening in learning English as well as their listening difficulties. Additionally, this research provides some valuable insights into such an important issue of all language learners and proffers pedagogical implications for both teachers and students.

1.2 Research aims and research question

The study aims at investigating the difficulties that English-majored first year students at the University of Languages and International Studies face when they study listening. As far as the researcher is concerned, listening is the most difficult skill for first year students, especially for those who come from the countryside and remote areas. Hence, listening comprehension is somewhat a terrible nightmare for them. This study is undertaken with a view to identifying the factors leading to their problems with listening skills and providing implications for teachers and students to make improvements.

The objectives above can be summarized in one following research question:

What are the difficulties in learning English listening encountered by ULIS English-majored mainstream freshmen?

1.3 Research design

This research was undertaken as a descriptive study utilizing quantitative method, that is, to take advantage of survey questionnaire as the main research tool to collect data. The population of the research is English-majored first year students at ULIS because they have just entered university after passing the entrance examination and may be unfamiliar with the new learning environment, which makes them struggle with various problems in learning language skills. Thus, digging deep into their problems is the first step to help them improve their listening skills as well as other language skills. The participants were chosen randomly from first year mainstream students (QH2022) to avoid biased results. In general, in this study, the researcher employed quantitative method to collect data and analyze information collected from survey questionnaires - the main data collecting instrument.

1.4 Significance of the study

With this study, the researchers expected to gain insights into the problems that English-majored freshmen at ULIS have to encounter when they learn listening skills. As a result, once completed, the research would bring a multitude of considerable benefits to both teachers and students. First of all, the results of the study would raise awareness among teachers of English to have a better understanding of their students' listening difficulties and examine their own pedagogical methods to improve students' listening comprehension, so that they can take initiatives to exploit suitable methods and to better engage their students in in-class activities during listening periods. Besides, the findings of this study also help learners to identify their difficulties in listening comprehension to ascertain what further learning strategies are necessary; as learners need to be aware of the factors which contribute to their difficulties in listening. Lastly, this research could offer useful references for further studies on the related topic area.

1.5 Outline of the research paper

This paper consists of five chapters.

Chapter 1: Introduction: This part focuses on describing rationale, aims, method, significance and outline of the study. One research question is also included in this part.

Chapter 2: Literature Review: This part lays the theoretical foundation for the study with definitions of key terms and review of some related studies worldwide.

Chapter 3: Methodology: This part gives information about the setting of the research, sampling method, data collection instrument, and data analysis methods of the research.

Chapter 4: Results and Discussion: This part presents, analyzes, and gives discussion about the findings that were obtained from the questionnaires.

Chapter 5: Conclusion: This part ends the study with a summary of the main points discussed in this study. It also mentions the limitations of the study and includes recommendations and suggestions for further studies. Following this chapter are Reference lists and Appendices.

CHAPTER 2: LITERATURE REVIEW

This chapter sheds light on the literature of the study; especially the definitions and classifications of the key terms as well as a number of studies related to the research topic will be provided.

2.1 Listening comprehension

2.1.1 Listening comprehension

Because of its huge merits on human lives and its fundamental role in language acquisition, listening skill is receiving more and more attention from researchers. So far, there have been myriad definitions of listening proposed by different linguists. According to Chastain (1971) and Mendelsohn (1994), listening is the capability of understanding the spoken language of native speakers. Meanwhile, Dakin and Howatt (1974) and Thomlison (1984) both defined listening as the ability to identify and understand what others are saying. They agreed that this is a complicated process involving understanding a speaker's accent or pronunciation, grammar, vocabulary, and comprehension of meaning. Pearson (1983) stated that "Listening involves the simultaneous organization and combination of skills in phonology, syntax, semantics, and knowledge of the text structure, all of which seem to be controlled by the cognitive process". According to Hirsch (1986), listening is a process involving "neurological response and interpretations of sounds to understand and to give meaning by reacting, selecting meaning, remembering, attending, analyzing and including previous experience". Brown (2001) also supported this idea, claiming that one aspect of listening is "the psychomotor process of receiving sound waves through the ear and transmitting nerve impulses to the brain". Listening can also be defined as an active process during which listeners construct the meaning from oral input (Bentley & Bacon, 1996). Rost (2002) shared this viewpoint of Bentley and Bacon (1996), defining listening as a process of receiving information from the speakers, constructing and representing meaning, negotiating meaning with the speakers and responding, and creating meaning through involvement, imagination, and empathy. Scott Shelton (2008) opined that listening is a demanding process in which listeners must be able to deal with different accents or pronunciation, unfamiliar lexical items, and syntactic structures, background noise as well as to consciously attempt to not switch off or become distracted while listening.

In conclusion, from all the above-mentioned definitions, we perceive that listening is a complicated, active and dynamic process requiring an assemblage of different factors. The term 'Listening comprehension' has also been defined by different authors. Brown and Yule (1983) defined listening comprehension as the listeners' ability to understand what they have heard. Another viewpoint held by Dirven and Oakeshott-Taylor (1984) is that "Listening comprehension is the product of teaching methodology and is matched by terms such as speech understanding, spoken language understanding, speech recognition, and speech perception". According to Buck (2001), "listening comprehension is an active process of constructing meaning and this is done by applying knowledge to the incoming sound". Listeners can comprehend the oral input through sound discrimination, previous knowledge, grammatical structures, stress, intonation and other linguistic or non-linguistic clues (Nadig, 2013; Hamouda, 2013; Rost, 2002). In general, listening comprehension is also an active and

interactive process in which listeners can comprehend language input and construct the meaning through various means, both linguistic and non-linguistic ones.

2.1.2 The importance of listening skills in language learning

Listening is of paramount importance to language learners. According to Numan (1998), listening is the basic skill in language learning and over 50% of the time that students spend functioning in a foreign language will be devoted to listening. Moreover, Rost (1994) claimed that “Listening is vital in the language classroom because it provides input for learners. Without understanding input at the right level, any learning simply cannot begin”. Several studies prove that aural input plays such a vital role in language acquisition and cognitive development. Krashen (1985) believed that understanding linguistic information is the key to acquiring a language. Moreover, the more the students listen, the more vocabulary, proficiency and the better language usage they have (Barker, 1971). These claims are supported by Stevenson (2010) who pinpointed that:

For learners of English, listening is vital because it is through this sense that they receive information on vocabulary, grammar, pronunciation, spoken word order, as well as the stress patterns of words, phrases, and sentences. In addition, added to these is the effect that different accents, voice tone, and pitch can have on their comprehension of the message. (para. 5)

In addition to serving as a receptive skill, providing essential language input for learners, listening also contributes significantly to the development of other language skills (Vandergriff, 1997). This idea was fortified by the explanation of Nation (1990) that “Listening gives learners the information to build up the knowledge necessary for using the language. When this knowledge is built up, learners can begin to speak. The listening period is a time of observation and learning, which provides the basis for other language skills”. To recapitulate, listening plays an indispensable role in language acquisition. Not only is this skill a tool to obtain language input and communicate with others but it also boosts learners’ proficiency in other aspects of language acquisition.

2.2 Difficulties in learning English listening as discussed in previous studies

In terms of the definition of listening problems, listening difficulties are defined as the internal and external characteristics that might interrupt and hinder text understanding as well as real-life information processing problems that take place at various stages of listening comprehension (Goh, 2000). Listening is a receptive skill because learners do not need to produce language to deal with listening sections. However, for many English learners, listening comprehension is viewed as the most challenging compared with other English language skills: reading, writing and speaking. In fact, learning to listen in the second language is more problematic because it does not only require the listeners’ language competency but also is attributed to the speakers, the content of the listening materials, the physical setting in the classroom and even the inevitable physical problems arising from the learners themselves.

This present paper focuses on the four following factors with a view to exploring the predominant causes that lead to learners’ difficulties in English listening comprehension. The list of these factors was adapted from a number of different sources in order to maximize the coverage of this research.

2.2.1 Speaker-related difficulties

Some research has been carried out to test the correlation between some speaker-related factors in the recording and listening comprehension troubles faced by students. According to Flowerdew and Miller (1992) and Underwood (1989), many English learners claim that the greatest obstacle they face while listening is their inability to control the speed of the speakers. When the rate of the speech gets faster, listeners even do not have enough time to

process the lexical and grammatical information, and they will begin to miss parts of the text. At a certain speed, their processing will tend to break down completely; and they will fail to understand the conversation (Buck, 2001). Galvin and Cooper (1999) affirmed that if speakers speak too fast (i.e. more than 120 to 180 words a minute), the audience will be caught in mental confusion as they fail to catch up with the information given.

Furthermore, the accent of the speakers also hinders the learners in their effort to learning English. Buck (2011) pinpointed that an unfamiliar accent can cause problems by disrupting the whole comprehension processor and make comprehension almost unattainable for a listener. This problem may occur due to the fact that many foreign learners are used to their own teacher's accents or to the standard module of British or American English (Buck, 1990). Thus, when coming across unfamiliar accents, they become discouraged, leading to the failure in listening comprehension.

Similarly, it should be taken into account that hesitations and pauses in spontaneous speech cause perceptual problems and comprehension errors for non-native speakers, according to Hasan (2000). When people speak, they often hesitate, repeat themselves, say things that are ungrammatical and change their minds halfway through a sentence. These things are a natural feature of speech and may be either a help or a hindrance, depending on the students' level.

2.2.2 Learner-related difficulties

Aside from the difficulties caused by the speakers, the learners themselves are similarly of a hindrance. The first obstacle is posed by lexical items. It is undeniable that a robust vocabulary improves all areas of communication in general and assists the second-language listening ability in particular. Vocabulary knowledge is an important predictor that is strongly correlated with L2 listening ability (Zeeland, 2013). It was also stated in Underwood's study (1989) that limited vocabulary can pose a great obstacle to most students in listening comprehension. Butt et al. (2010) also shared the same viewpoint that a limited amount of vocabulary prevents the students from grasping the content in general and recognizing the missing words and phrases in particular. It was claimed that listeners should recognize 50% of the words in a text in order to understand it (Paran, 1996). Knowing the meaning of words can arouse students' interest and motivation, thus positively impacting their listening comprehension ability.

Unlike vocabulary, the role of grammar knowledge as a direct cause for English listening problems has been less explored, although there has been a range of research arguing that there may be a strong relation between complex grammatical structures and other skills such as reading and writing. Vogely's study (1998) indicated that the difficulty in listening comprehension is partly due to the structural component of the text. In cognitive psychology, Anderson (1988) affirmed that entirely mastering the English structures allows us to grasp the comprehensive meaning in the comprehension process. Both Field (2008) and VanPatten (1990) concluded that learners, in particular, early-stage learners, have difficulty in attending to both form and content in listening. In contrast, Mecartty (2000) stated that grammatical knowledge does not contribute significantly to listening or comprehension but vocabulary knowledge is of paramount importance in second language listening comprehension ability.

According to some researchers, the learners' background knowledge and cross-cultural understanding are important comprehension facilitator factors. Unfamiliar topics hinder the listening comprehension of the majority of the students. As stated in Underwood's study (1989), listeners may lack contextual knowledge which helps to boost the listening efficiency. This goes in accordance with Nuttall's declaration (1996) which showed learners should share certain assumptions about the subject to construct their understanding of the subject they listen on the basis of their experiences. Anderson and Lynch (1988) also stated the consistent conclusions that listening comprehension depends on the listeners' background knowledge and their familiarity with the scenarios in the task input. To elucidate, if there is a discrepancy between the subject and the previous experience of the learners, they will be panic and

confused; consequently, they may fail to listen. More notably, research has also been conducted on the effect of culturally specific words or idioms on listening comprehension. This was found by both Sasaki (2000) and Nissan et al. (1996) who agreed that replacing culturally unfamiliar words in listening comprehension sections with culturally familiar words can boost the examinees' understanding of information.

In terms of pronunciation, it is the “basic outward shell of a language” (Naizhao & Wills, 2006), hence this language element should be properly acquired to develop the listening skills. However, as a consequence of Vietnamese grammar-driven curriculum, many students become pronunciation ignorant. Ur (1984); Walker (2014); Bloomfield et al. (2010) and Goh (1994) shared the same idea that one of the serious problems of listening comprehension is related to the pronunciation of words that is different from the way they appear in print. There are words that most students normally recognize in their written form, but they find difficulty whenever they hear them in a stream of speech. In Chen's research (2005), it was discovered that it is difficult for learners at low-level to identify or differentiate individual sounds and linking sounds.

Last but not least, Yagang (1993) stated that listening is not a simple process; in contrast, it is a complex psychological one. It is believed that in a long comprehension exercise, the learners' grasp of the content is much better at the beginning and gets progressively worse during the listening process due to the psychological phenomenon. It means that when there is nervousness or a lack of interest, listeners cannot concentrate and quickly forget what is heard. Hasan (2000) and Hamouda (2013); Yagang (1993) supported that the lack of motivation and interest should be considered a precursor of physical factors negatively affecting listening comprehension.

2.2.3 Material-related difficulties

A lot of research has clearly shown that the length of the recording can be a major factor that negatively affects the learners' listening comprehension. It should be taken into consideration that if the students do the listening for a long time, they will be put under pressure. Bingol, Celik, Yidliz, and Mart (2014) stated that the level of students can have a significant role when they listen to long parts and keep all information in their minds. This is consistent with Hasan's declaration (2000) that the length of time students listen may cause memory problems or even fatigue and this would distract listeners' attention from grasping the meaning of the text, and learners may miss the rest of the text when there is a lapse in concentration.

Besides, the density of the information can cause another trouble for listeners. The dense passage is a long one (Rost, 2006) with a great amount of information included. Again, greater information density is believed to make higher cognitive demands of second language listeners, which may increase the effort involved in listening comprehension (Gilmore, 2004). Furthermore, if the text contains a lot of information, it is not easy to store everything in mind because of exceptional listening ability and strategy required to understand (Carroll, 1977).

In addition, passage complexity may also affect L2 listening comprehension. In some cases, the syntactic features of the text are rather complex, and simplifying the syntax of a passage does not consistently aid listening comprehension (Pica, Young, & Doughty, 1987). For instance, the use of long and complex sentences in the recording can create a challenge for non-native speakers to understand. Another factor lies in indirect passages, which include more implied information and can also be more difficult for L2 listeners to comprehend (Taguchi, 2008). Therefore, if the students do not have the ability to draw a clear outline of this text, they also fail to catch the information effectively.

Similarly, colloquial language is another problem that can set obstacles to listeners' comprehension in real-life listening. Daily monologues and dialogues may contain a lot of colloquial words and expressions as well as slang. Speech and writing are both variants of the same linguistic system, but they are linguistically different from each other. In speaking, especially in informal situations, people do not usually speak in sentences but speak with short

phrases or clauses, called idea units, strung together in a rather loose way. Vocabulary and grammar also tend to be far more colloquial and much less formal. There are many words and expressions that are only used in speech, never in writing. Brown (1992) pointed out that non-native learners who have been exposed to standard written English and bookish language sometimes find it surprising and difficult to deal with colloquial language.

A person needs around six thousand to seven thousand vocabularies to understand the ninety-eight percent of the authentic discourse (Nation, 2006). McCarthy (1990) even affirmed out that it takes native speakers years to acquire an acceptable knowledge of collocation. Besides, it is the real language or authentic material that causes great difficulty to students. Students have been exposed to materials that are designed for teaching and listening purposes. Therefore, the language in these materials, to some extent, have been simplified and contained less colloquial English. However, Heron and Seay (1991) highlighted the importance of authentic material for their great improvement in listening comprehension since authentic material related closely to the lives and language variety. In addition, most of ULIS students have been learning English with non-native teachers from high schools. On the grounds of that, if students listen to an informal conversation, it is for sure that it is much harder than listening to a formal conversation used mostly in English classroom. Consequently, they do not know what they are listening to. The real language includes colloquial words, expressions and even slangs which absolutely hardly bring the students any concepts about them.

Apart from the above difficulties, failure to recognize discourse makers – the signal words of the speakers, may also obstruct learners' listening comprehension. The speakers use the discourse makers to indicate that they are moving the ideas, giving examples, or repeating the previous points (Underwood, 1989). Different markers with particular expressions keep listeners grasp the turning points of the task. The listener can predict what may come next by using signal words. However, since speech signals are fast, continuous and fleeting, these signals can be missed especially by less proficient listeners (Gilakjani & Ahmadi, 2011). Therefore, being unable to listen to these markers will prevent the learners from following the continuous stream of the speech, resulting in their failure to recognize the overall organization of the ideas in a text.

2.2.4 Physical-setting-related difficulties

Unclear sounds resulting from poor-quality equipment and facilities can interfere with the listener's comprehension. In addition, in a crowded classroom, the students who sit at the end of the classroom may not listen to the lessons clearly. According to Chetchumlong (1987), the scarcity of opportunities to listen to a variety of spoken texts with the aid of good types of equipment and learn English with native speakers, especially in rural areas, contributes to listening performance.

In addition, the material itself may be the main source of listening comprehension problems. According to Seferoglu and Uzakgoren (2004), some other listening comprehension problems are related to the poor quality of listening tapes. The majority of the students think the difficulties they encounter in listening comprehension are due to the bad recording quality and poor-quality tapes or disks. For example, the long use of a cassette may greatly reduce its quality. Unclear sounds resulting from poor-quality equipment can also interfere with the listener's comprehension. In some classes, teachers use some recorded materials that do not have high quality. The quality of sound system can impact the comprehending of learners' listening (Bingol, Celik, Yidliz, & Mart, 2014).

Noise is another environmental barrier to comprehension. Noise, including both background noises on the recording and environmental noises, can take the listener's mind off the content of the listening passage. Sometimes inconvenience of classrooms affects students listening comprehension. According to Bloomfield et al. (2011) and Hamouda (2013), noise or distortion in the audio signal interferes with listening comprehension for listeners. In the large classrooms, students who are sitting on the back rows may not hear the recording as students

sit in front. Students who prefer to stay next to the windows also affected by the noise that comes from outside. As a consequence, students are distracted by the noise no matter how hard they try to focus on the task.

2.3 Review of related studies

Because listening is one of the most important skills to make a good communicator, which can be explained by a statement that people spend approximately 60% of their time listening (Rubin & Thompson, 1996), few studies were carried out to investigate the difficulties in studying listening skill of learners learning English as a foreign language.

Hamouda (2013) conducted a study aiming at investigating listening comprehension problems encountered by Saudi students in the English learning listening classroom. The participants of this research were 60 first-year students majoring in English language and translation at Qassim University who, according to the researcher, were offered the same listening course at university and had all passed the placement exam. Nevertheless, the research was not quite valid because the participants were not representative enough to generalize an overall conclusion applying to the target population of all Saudi students in the English learning listening classroom. The study needs to be conducted with more comprehensive samples including elementary, secondary and preparatory levels in different regions across Saudi Arabia. In addition, in this study, researcher Arafat utilized both quantitative and qualitative methods of data collection. Regarding the quantitative method, questionnaires were used to get information about the difficulties students faced in English listening when taking the listening course. There were 4 main sections in the questionnaires, each of which aimed to find answers to one research question (about students' perception of listening skills, their previous English learning experience, their practice chance, and their difficulties). The second data gathering instrument was a semi-structured interview, whose purpose was to figure out how listening difficulties affected learners' listening comprehension and how teachers could help students overcome their listening comprehension problems. Generally, the items in the questionnaires and the interview were relevant and helpful for the researcher to make conclusions about the most common problems faced by students including unfamiliar words, the length of the spoken text, speed rate accents, pronunciation and lack of concentration as well as some suggestions to tackle these issues such as adapting materials and improving pedagogical techniques.

Abidin (2013) conducted related research which had the context in Malaysia. The research used qualitative method to collect data from three Chinese students taking English listening comprehension in University Science Malaysian. This study was a research report related to the problems encountered by Chinese students in listening comprehension learning. The interview aimed to investigate students' perspectives through the main question concerning the problems of the Chinese students in their English Listening Comprehension self-learning process, in three steps, which include the pre-listening, during listening and post-listening. Findings from this study indicate that the most common problem faced by Chinese students was the lack of prior knowledge regarding English vocabulary, and this inhibited their understanding of the listening process. Moreover, the differences in the accent of the native speakers hindered students from the proper understanding of the listening content, the short span of concentration, and the learning habits of Chinese students were discussed as the problems of the English listening learning process.

Ferris and Tagg (1996) focused more on academic listening and speaking tasks for students studying English as a second language. By conducting the survey with full-time professors of different colleges and universities, Ferris and Tagg could analyze and find out the difficulties among students in studying academic listening. Although students could be aware of the importance of listening skill, most of them were still quite hesitant and unwilling to participate in class discussions, interact with peers (except for those speaking their native language), and respond to questions. The implications drawn from this study suggested that teachers should

be the ones who helped to develop the communication strategies and listening strategies of students. Their study was a useful reference for students acquiring language as a second language. However, it would be better if the survey carried out according to both teachers' and students' opinions. It would be better if students who were in trouble could tell what their difficulties were.

Another related research was conducted by Anadapong (2011) at Bangkok University. This study was conducted with the participation of thirty of Business students at this University aiming to investigate their English listening problems and listening proficiency. Questionnaire, International English Language Testing System test, and Interview were the research instruments used in this study as tools to collect data. As a result, the data was analyzed using SPSS. The result of the study revealed that the main reason causing listening problems for the students was the listening text. However, the factors that mostly caused listening problems were a lack of practicing listening skills and a lack of exposure to different kinds of listening materials.

Darti and Andi Asmawati (2017) also conducted research aiming to find out the obstacles encountered by the students from three factors: listening material, listeners' factor, and physical setting. Descriptive method was employed to analyze and to discover the solutions about the problems. The research was conducted in the State Islamic University of Alauddin Makassar. The population of this study was second-semester students of the English Education Department of Tarbiyah and Teaching Faculty in the academic year of 2016/2017. There were 37 students involved in this study. Data were gathered by questionnaires and interviews while observation during listening was used to confirm students' answers. The results of analyzing students' obstacles toward listening comprehension showed that listening was a very difficult skill for students who studied a foreign language. However, there are some weaknesses that the researchers of this study might overlook. Although the number of participants was quite adequate to ensure the validity and reliability of the study, it would be better if more participants were involved, especially, teacher participants, as they would be the ones who provide deeper thoughts and viewpoints into the nature of the problems, as well as more useful solutions to the students. Although there are numerous studies conducted on this matter throughout the world, in the context of Vietnam, little research has been done to offer deeper insights into this issue. The setting, as well as the population of the related research in foreign countries, may be very different from Vietnam. Therefore, this research was conducted in order to dig deep into the situations in Vietnam, specifically in the context of the University of Languages and International Studies.

In summary, this chapter examines the prior literature related to listening difficulties. It has mentioned the importance of listening comprehension; the definition; and the potential listening problems students face when listening English. The following chapters will focus on the study - its methodology and findings – under the light of the theories discussed above.

CHAPTER 3: METHODOLOGY

In this chapter, the method employed to carry out the study is presented. Information about the setting of the study and participants is also included.

3.1 Research question

The objectives of this current study were to investigate the difficulties in listening comprehension encountered by English-majored mainstream freshmen at ULIS, as well as providing implications for teachers and students to make improvements. The objectives above can be summarized in one following research question:

What are the difficulties in learning English listening encountered by ULIS English major mainstream freshmen?

This question focuses on the difficulties in listening comprehension among these students and the frequency they face each difficulty.

3.2 The setting of the study

3.2.1 The research context

The research was carried out at the Faculty of English Language Teacher Education, ULIS, VNU which provides numerous English language teachers each year. The University of Languages and International Studies is one of the prestigious English training institutions where the communicative approach is considerably utilized and there are a variety of educational methods that have been effectively applied in the classrooms. The research was conducted in this context where students are supposed to take listening courses and master this skill which proves to be essential for their future occupations with a view to acquiring a thorough understanding of obstacles faced by first-year mainstream students in listening comprehension as well as finding plausible solutions to innovate listening pedagogical methods and improve academic outcomes. In addition, this research focuses on analyzing four main difficulties that originate from the listeners, the speakers, the listening text and the physical setting encountered by students in this setting.

3.2.2 Sampling

In terms of the quantitative method, simple random sampling was utilized. Specifically, 239 out of 269 first-year English-majored mainstream students were chosen entirely by chance to partake in the survey questionnaires. Simple random sampling was employed because it is easy to carry out, there is no need to divide the population into sub-populations or take complicated steps to categorize members of the population. Moreover, because each member of the population has an equal probability of selection, it is highly likely that this sampling method yields a representative sample to make inferences and generalizations.

3.2.3 Participants

This research was conducted with the participation of 239 first-year students from the Faculty of English Language Teacher Education at the University of Languages and International Studies in the academic year 2022-2023. There are two main reasons why we choose the first-year mainstream students majoring in English language at ULIS to be the main population of our research. First of all, it is obvious that they all reached a certain level of English after graduating from high school and have already passed the entrance exam to the university. Their proficiency of English language can be proved by the exam results with the criteria ranging from vocabulary items, grammatical aspects, and reading comprehension ability. Furthermore, they all experienced at least 10 weeks of learning English as a major in university; therefore, they have opportunities to study listening skills as a separate subject, unlike what they had undergone before. While in high school they tended to focus more on acquiring grammar knowledge and neglect other skills such as listening and speaking, in ULIS a totally different way of studying is provided, which includes listening as an individual subject. As a result, students will have to confront certain obstacles in their listening skills. The current first-year mainstream students at FELTE, ULIS belong to two different majors of training: English Language Teacher Education, and Translation and Interpreting. Consequently, there exist differences in their learning objectives and strategies as well as teachers' teaching materials and methods. Hence, our research was expected to explore their difficulties and discover which one was the most or least common among these freshmen to promptly solve the problems and boost their learning outcomes. The following part aims at finding out the general perception of freshmen about listening difficulties and their ability in learning listening. The data in this part was obtained from the first three questions of the questionnaire.

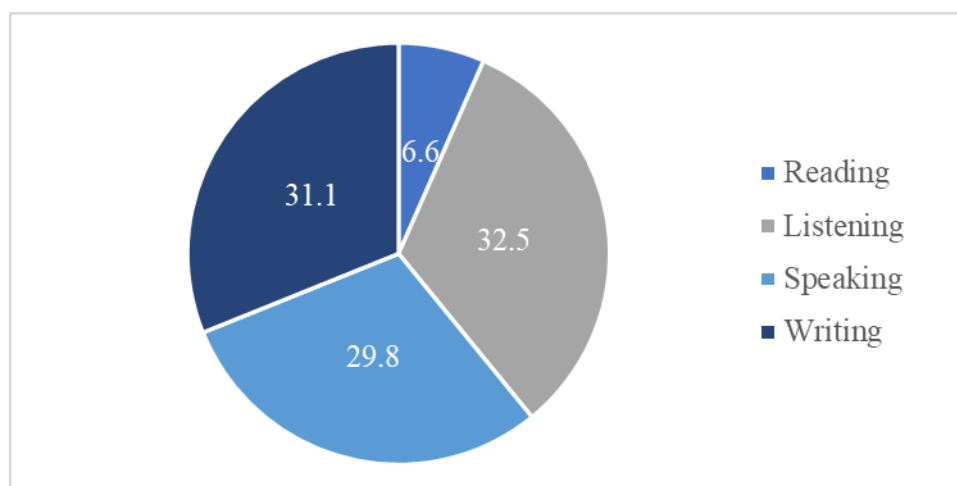


Figure 3.1 Students' perception of the most difficult English skill

Figure 3.1 gives information on participants' perceptions of the difficulty level of four English skills. It can be seen that the majority of the respondents, accounting for 32.5%, evaluated Listening as the most difficult skill. Ranked the second and third place in the level of difficulty perceived by the ULIS first-year students are Writing and Speaking skills with 31.1% and 29.8% respectively. When it comes to Reading skill, only 6.6% of the participants found it challenging.

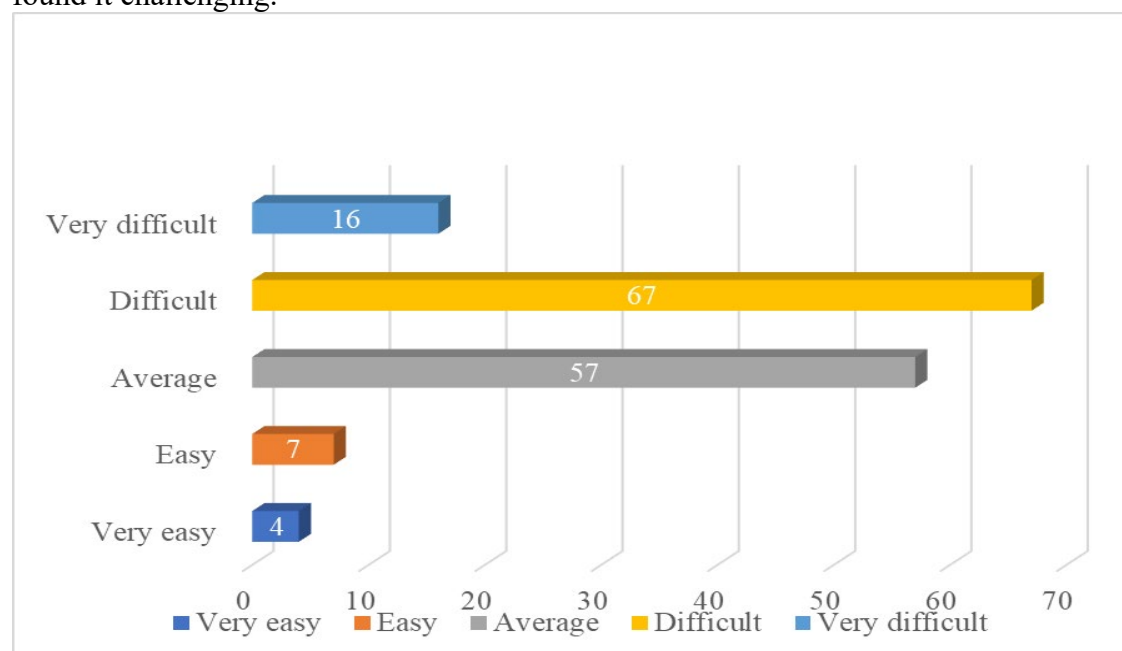


Figure 3.2 Students' assessment of the difficulty level of listening skill

Figure 3.2 illustrates how students assessed the level of difficulty of listening skill, ranging from very difficult to very easy. The biggest number of students found listening difficult while there were only 4 out of 151 respondents perceiving it to be very easy. In the meantime, the proportion of students stating that listening was very difficult accounted for about 10.6%. In addition, 57 students found it average and only 7 of them considered listening to be easy.

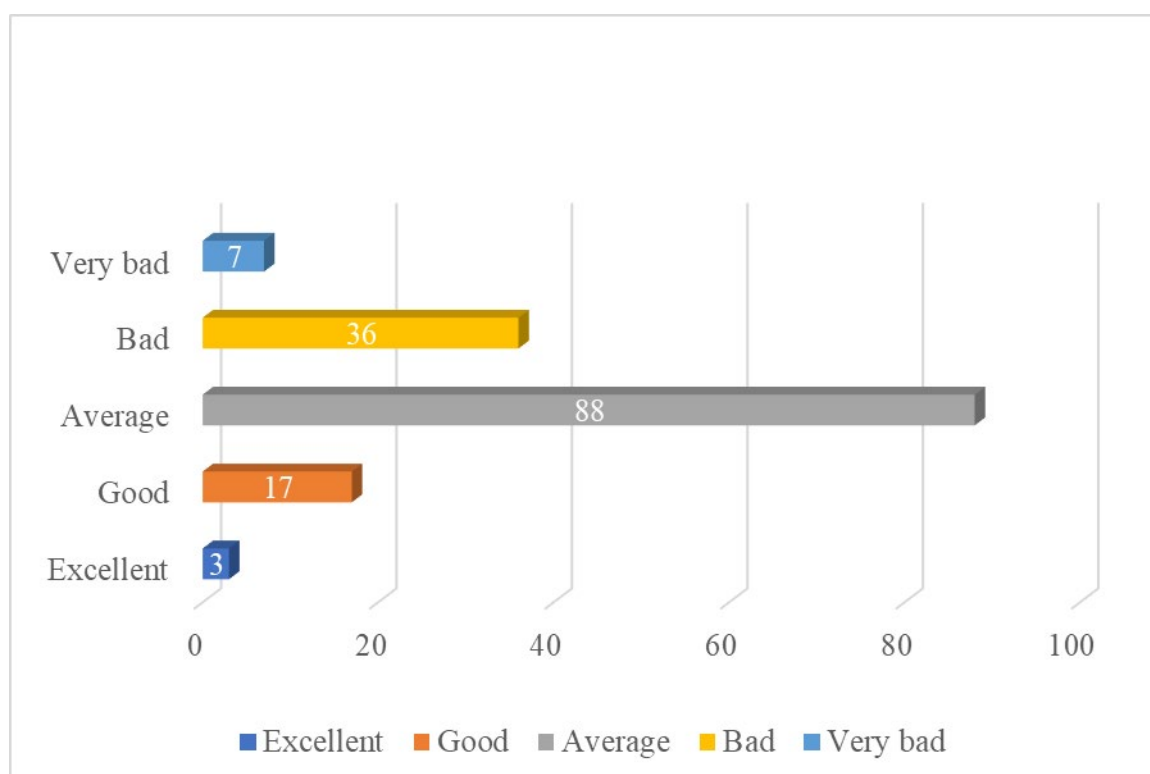


Figure 3.2 Students' self- assessment of their listening proficiency

Figure 3.2 provides data on how students assess their listening proficiency. The majority of respondents evaluated their listening as an average level. Only 3 out of 151 admitted that they were excellent at English listening. In contrast, there were just 7 students acknowledging they were very bad at listening.

3.3 Research methods

The research method employed to conduct this research is descriptive. This method was chosen because descriptive quantitative research was conducted to give detailed image about a phenomenon (Prasetyo, 2008). Additionally, Suryabrata (2008) stated that the aim of descriptive research was to make a systematical description, factual, and accurate about facts and the characteristics of the population. Based on the descriptions above, the researchers conducted descriptive research to collect quantifiable information to be used for statistical analysis of the population sample. It means to make a description of the difficulties in English listening among the first-year students at ULIS and the frequency of their encountering the problems.

3.4 Data collection instruments

3.4.1 Rationale for the instrument

The main data collection instrument of the research is a survey questionnaire, which was designed with the aim of finding out the answers to the research question: "What are the difficulties in learning English listening encountered by ULIS English major mainstream freshmen?". According to Mackey and Gass (2005), the questionnaire is "one of the most common methods of collecting data on attitudes and opinions".

This method was employed for three main reasons. First, this instrument is the most time-efficient method. Particularly, the researcher is able to quickly gather information from a large number of participants thanks to its typical short close-ended types of questions that are fast and easy to complete. Therefore, the data collected will possess a high standard of scientific objectivity. Second, most survey questionnaires are quantitative in nature and allow easy analysis of results. Third, this instrument is quite fair when compared to face-to-face interview

method because “When completing a questionnaire, there are no verbal or visual clues from an interviewer that may influence the person surveyed” (Jones, (n.d.)

In spite of those merits, the questionnaire also has some downsides. Firstly, researchers may have to deal with unreliable or unmotivated respondents (Moser & Kalton, 1971). Secondly, when using a questionnaire, researchers have little control to avoid blank answers by unwilling respondents. Another disadvantage of this method is the social desirability bias (Oppenheim, 1992) - the case in which questionnaire takers have the tendency to answer questions in a manner that will be viewed favorably by others. Being aware of those limitations of this instrument, the researchers tried to give careful instructions and explanations about the aim of our research conducting, the values their response to the study, as well as the confidentiality of all the information provided.

3.4.2 Description of survey questionnaires

A self-reporting questionnaire was developed to collect the relevant data about the listening difficulties faced by ULIS English-major freshmen in the Mainstream program. The questionnaire was designed partly based on the questionnaires by Hamouda (2013). At the beginning of the questionnaire is a brief introduction of the researchers, the title of the study, as well as a brief explanation of the purpose of it. The researchers also claimed that there was no right or wrong answer in order to retrieve reliable responses. In the end, there is a thank-you note and spaces for the participants to write their personal information should they want to gain the reward.

The questionnaire contains 29 question items. In more detail, in the first part of the questionnaire, three multiple-choice questions #1, #2 and #3 were designed to investigate the students’ general perception about learning listening and self-evaluation of their ability. 26 other question items (questions #4 to #28) were written in the form of a Likert scale from one to five. These 26 items were aimed at examining how frequently freshmen encounter listening difficulties listed out in the questionnaires. The levels of frequency are ranked from 1-5, from the least frequency to the most frequency. This type of close-ended questions is easier and faster for the researcher to analyze the results.

3.5 Data collection procedures

Phase 1: Piloting the questionnaires

In this phase, firstly, we submitted the draft of the questionnaire to the supervisor for comments and appropriate adjustments. Other changes to the wordings of the questionnaire and some questions’ contents were made to help eliminate ambiguity and avoid any misunderstanding from the participants. Next, the researchers delivered the questionnaires to 25 first-year students who had the same characteristics as the targeted population and 10 second-year fast-track students, asked them to read carefully the instructions and complete the survey. After that, the comments and constructive feedback from the students about the overall appearance of the questionnaire, the clarity of the instructions as well as the clearance of the questions were carefully taken. The researchers also checked the Cronbach’s Alpha index to ensure the study’s reliability. The final adapted questionnaire items were improved from the first drafts and delivered to the students to get the data for this study.

Phase 2: Data collecting process: questionnaire

The researchers made copies of the questionnaires and handed them to students of 8 classes. To be more detailed, 250 questionnaires in the Vietnamese version were delivered to ULIS English-majored freshmen in person, 239 were returned. Oral instructions were given clearly before students’ doing the survey; all the terms were clarified to assist participants in understanding correctly the wording in the questionnaires. Two researchers were also present to answer any questions arising in the process aiming to avoid any misunderstanding and ambiguity.

3.6 Data analysis method

Quantitative analysis strategies were applied in this study to analyze data from the questionnaires. As explained by Markey and Gass (2005), measures of frequency indicate how often a particular behavior or phenomenon occurs, and thus this type of descriptive statistics was well applied for this study. The answers from the questionnaires were then put in categories and the data was expressed in a numerical form so that the researchers could calculate the frequency of each problem in English listening comprehension as perceived by the students. In other words, the findings from questionnaires were analyzed to answer the research question: What are the difficulties in learning English listening encountered by ULIS English-majored mainstream freshmen?

3.7 Procedures of data analysis

Step 1: Preparing the data: Upon receiving back the questionnaires, the research sorted out and check whether (1) that questionnaire was completed; and (2) the given answers were consistent. Only after a questionnaire had met two criteria mentioned above could it be chosen for the next step.

Step 2: Reporting the statistics: In this step, the frequency of the difficulties that students encountered when listening English was calculated. Descriptive statistics analyses were carried out to understand the variables of data, including frequencies and percentages, statistics of central tendency (mean) and dispersion (standard deviation).

Step 3: Visualizing the collected data: Apart from being reported in written form with detailed numbers and description, the statistics were visualized using a range of charts, graphs, and tables. This made it so much easier to show the relationships for comparisons and contrasts.

3.8 Research ethics

Before administering the questionnaire, the researchers actively scheduled the time and location of the participants, and asked for permission and assistance from the teachers of said classes to conduct the survey. Participants can either choose to directly fill in the handouts, or flexibly access to the online version of the questionnaire via a provided QR code. Within 7 days, the participants will receive a compressed folder of learning materials as a token of appreciation via email if they wish, and only if emails are provided by the participants. During the data entry and analysis process, all of the collected questionnaire handouts with provided information were stored carefully and cautiously in a secured place, and can only be accessed by the researchers. Confidentiality is highly prioritized. Once the data collection is completed, all the questionnaire forms will be preserved, then will be disposed securely once the final paper is complete.

In summary, this chapter has focused much on the main parts of the study. It has demonstrated the setting of the study, description of the participants, sampling method, the research context, and research ethics. Information about the instruments, data collection and data analysis has also been provided. In the following part, the findings and the discussion of the findings will be presented.

CHAPTER 4: FINDINGS AND DISCUSSION

In this chapter, the findings of the study are presented and analyzed based on the theoretical framework. Thereafter, a discussion of the findings is provided. The findings and discussion of the data gained from the employed data collecting instruments, namely questionnaire, offer answers to a research question: What are the difficulties in learning English listening encountered by ULIS English major mainstream freshmen?

4.1 Findings

Factors engendering students' difficulties in English listening comprehension are categorized into 4 different sources including problems related to the speakers, the learners themselves, the listening materials and the physical setting. The collected data is analyzed in detail below.

4.1.1 Speaker-related difficulties

Table 4.1.1

Mean and standard deviation for items corresponding with speaker-related difficulties

Listening problems	Mean	Standard deviation
The fast speed	3.28	0.865
The strange accent	2.19	0.959
The number of the speakers	2.61	0.824
Ending sounds	2.93	1.05
Reduced forms (liaison and elision)	3.26	1.031
Stress	2.85	0.984
Signal words	1.85	0.743
Colloquial words and slangs	3.01	1.105

Table 4.1.1 gives information about the mean and standard deviation figures for the listening difficulties resulted from the speakers. The most outstanding feature of the table is that the inability to recognize signal words has the lowest mean of just 1.85 and also witnesses the lowest standard deviation of 0.743. On the contrary, the fast speed of the speakers, despite receiving the highest mean score of 3.28, has a relatively low standard deviation of 0.865. This was followed closely by reduced forms including liaison and elision with the second highest mean of 3.26. Ranked third is colloquial words and slangs with the mean score of 3.01. In the meantime, these two above items also have a fairly high standard deviation of 1.031 and 1.105, respectively. Similarly, ending sounds also receive both a relatively high mean of 2.93 and a high standard deviation of 1.050.

4.1.2 Learner-related difficulties

As mentioned in the literature review chapter, listening difficulties are classified into four categories, among which the students themselves also influence their listening ability. The details are presented in the following table:

Table 4.1.2

Mean and standard deviation for items corresponding with learner-related difficulties

Listening problems	Mean	Standard deviation
Lack of vocabulary	3,41	0,968
Lack of background knowledge	3,17	0,943
Worries	3,3	1,119
Inability to concentrate	3,04	1,076
Incorrect pronunciation	3,01	1,046
Inability to predict content	3,19	1,207
Ineffective listening habits	3,42	0,882

Illustrated in Table 4.1.2 are the mean and standard deviation indices of listening difficulties from the learners themselves. In general, the mean score of all items in this part is relatively high at over 3.00, with the lowest mean of 3.01 experienced by incorrect pronunciation. Despite being the item with the lowest mean in this group, incorrect pronunciation has a quite high standard deviation of 1.046. In contrast, ineffective listening habits receive the highest mean of 3.42 and the lowest standard deviation of 0.882. In terms of mean value, in the

second place is lack of vocabulary with the mean of 3.41, which is just a little lower than the highest figure. This item also has a comparatively low standard deviation of 0.968.

4.1.3 Material-related difficulties

In addition to the problems coming from the speakers and the listeners, the potential obstacles also emerge from the material utilized for listening. The frequency of students' encountering these material-related obstacles are presented briefly in the table as follows:

Table 4.1.3

Mean and standard deviation for items corresponding with material-related difficulties

Listening problems	Mean	Standard deviation
Jargons and idioms	3.42	0.882
Complex grammar	2.85	0.828
Different types of recording	2.71	0.963
Long listening	3.1	0.992
Too much information	3.42	0.912
Distracting sounds	3.25	0.986

As can be observed from the table, item 19 - a large number of unfamiliar words, jargon and idioms, and item 23 - a large amount of information in the recording, both receive the highest mean of 3.42 with fairly low standard deviations of 0.882 and 0.912, respectively. Overall, standard deviations of all items in this part fluctuate between 0.828 and 0.992, which are comparatively low. In regard to the mean values, two items with the lowest mean are the appearance of both monologue and dialogue in the recordings and complicated grammatical structures in the listening text, which in turn receive the mean of 2.71 and 2.85.

4.1.4 Physical-setting-related difficulties

Table 4.1.4

Mean and standard deviation for items corresponding with physical setting-related difficulties

Listening problems	Mean	Standard deviation
Poor quality equipment	2.42	1.016
Background noises	2.67	0.957
The large classroom	2.07	0.907
The crowded classes	1.96	0.894

Table 4.1.4 indicates the statistics of listening difficulties induced by the physical setting. As can be seen from the table, all 4 items in this group receive quite low mean scores/values. Specifically, the factor having the highest mean is background noises with the figure being 2.67, followed by the poor quality of listening equipment and facilities (2.42). Large classroom is ranked third with the mean value of 2.07. Lastly, crowded classes receive the lowest mean of just 1.96 and also the lowest standard deviation of 0.894. The highest standard deviation is witnessed in the poor quality of facilities (at 1.016).

4.2 Discussion

4.2.1 Speaker-related difficulties

As can be inferred from the findings, the fast speed of the speakers is the most common obstacle faced by the participants. It can be seen that the students had a quite consistent evaluation of the difficulty caused by the fast speed of the delivery because this problem receives a fairly low standard deviation. This findings coincided with the results of the studies

done by Flowerdew and Miller (1992) and Hayati (2010) who have reported that their subjects unanimously rated speed of delivery as one of the greatest obstacles to understanding.

With regards to the liaison and elision which refer to the phenomenon in linking sounds between two words in a row, the findings pointed out that most of the respondents frequently encounter this problem. This result is also consistent with Ur's conclusion (1984), which stated that if a word is pronounced differently from the way it was said when it was learned, the listener may not tend to recognize it as the same word, or may even miss its existence completely. At this point, this problem interferes with the learners' listening comprehension.

It is clear that the inability to recognize signal words while listening is the least frequently encountered by students, and has the lowest standard deviation which can be easily deduced that almost all the participants perceive the signal words as a minor problem during listening process. This result is quite contradictory to the findings that were established by Gilakjani (2011) who claimed that signal words can be missed easily, especially by less proficient listeners. The participants of this study, who were ULIS first-year students, as described in the previous chapter, were quite less experienced in learning listening because this skill was not taught as a separate subject in the high school; however, from the findings, it can be deduced that they often have no major obstacles in recognizing signal words. In other words, somehow they are quite good at distinguishing signal words.

Additionally, the difficulty in recognizing the ending sounds ranks the third highest mean of 2.93; therefore, it is one of the most challenging factors in acquiring information in the listening material. This could be explained by the fact that their pronunciation has not been really good. Specifically, some ending sounds, for example /t/, /k/, /s/, /d/, etc are not paid much attention to when they speak English. As a result, they forget about them unconsciously while listening.

4.2.2 Learner-related difficulties

With the highest mean of 3.41 and 3.42, lack of vocabulary and ineffective listening habits are considered as the most frequently encountered by the students. And with the low standard deviation, the researchers could conclude that most of them do agree that these two problems are common and challenging. Even when the students have correct pronunciation and enough background knowledge, it will be a problem if they do not know the meaning of the words. These results also support Underwood's theory (1989) that limited vocabulary is a big obstacle to most students in listening comprehension. In the second place of frequency, with the mean of 3.30, some problems relating to psychological factors such as stress caused by homework or assignments and the nervousness about the examination, or tiredness can affect the listening effectiveness. According to Yagang (1994), the listening comprehension process was also a relatively complex psychological process. In psychological fields, it is stated that when a person feels nervous, his or her ability to listen is greatly reduced owing to the incapability of fully concentrating on the listening process. Most of the items among all the problems from the learners themselves have a fairly high standard deviation. Hence, the researchers could deduce that the participants do not have consistent viewpoint.

4.2.3 Material-related difficulties

In general, the above results indicate that the listening text itself can be the main source of listening comprehension problems. In particular, unfamiliar words, complex grammatical structures, long spoken text, different types of recording, dense amounts of information and distracting sounds pose listening difficulties to learners.

As can be seen in the findings section, two items unfamiliar vocabulary and dense information receive the highest means with fairly low standard deviations in terms of frequency. Unknown words and too much information in a recording are obstacles for the students to catch the needed information. Both these problems are frequently-encountered by the participants in learning listening. Although Ur's assertion (1984) justified that the difficulty in listening

comprehension is partly due to the length of the listening text, the majority of the students responded that a long spoken text has less interference with their listening comprehension when compared to the colloquial language and the density of information.

A large number of linguistic challenges such as unfamiliar words, jargons, and idioms are those that result from the English language itself. Some difficulties in understanding and remembering information are caused by both students' lack of English proficiency and their professors' use of English in class. Colloquial language is a special challenge for non-native speakers in understanding a text. The researchers can draw from this result that it is the real language or authentic materials that cause great difficulty to students. This is consistent with Brown's statement (1992) which pointed out that non-native learners who had been exposed to standard written English and bookish language sometimes found it surprising and difficult to deal with colloquial language. Students have been exposed to materials that are designed for teaching and listening purposes. Therefore, the language in these materials, to some extent, has been simplified and contained less colloquial English. In addition, most of ULIS students have been learning English with non-native teachers from high schools. On the grounds of that, if students listen to an informal conversation, it is for sure that it is much harder than listening to a formal conversation used mostly in English.

As observed in the research results, the amount of information in a passage may be a more predictive factor for comprehension difficulty than is overall passage length. While information density will tend to be highly correlated with passage length in authentic passages, such that more dense passages will tend to be longer than less dense passages; however, greater information density is believed to make higher cognitive demands of listeners, which may increase the effort involved in listening comprehension (Gilmore, 2004).

Distracting sounds rank as the second most frequent obstacles in English listening comprehension. Noise can take the listener's mind off the content of the listening passage. Sometimes the inconvenience of classrooms affects students listening comprehension, for example, students who prefer to stay next to the windows also affected by the noise that comes from outside. This result coincides with Hamouda's study (2013) which stated that because of the noise in classroom and the poorly preparation of lab, a great number of students claim that they cannot be concentrated on listening to the recording material.

In contrast, among some features of materials, the different types of recording (monologues, dialogues) and the complex grammar are respectively the least difficult ones. This can be explained by the fact that almost all the ULIS English-majored students have had a comprehensive and profound knowledge of English grammar gained from high schools, which obviously helps them encounter less difficulties when dealing with syntactic passage complexity in listening texts.

From the above results, therefore, it seems reasonable to generalize that recordings that contain many unfamiliar words and dense information hinder the listening comprehension of a large number of students.

4.2.4 Physical-setting related difficulties

Overall, the problems lie in the physical setting factors which receive the lowest mean scores are not as common as problems from the other three factors. What is worth noticing here is that the frequency of poor quality equipment and facilities receives the low mean scores which range from 1.96 to 2.67. This indicates that the quality of cassette players, the recorded tapes, or the equipment in the classroom do not significantly affect the students' performance in listening. In addition, the students have the most similar idea about the influence of class setting on learning listening, which was shown in the standard deviation. This result contradicts Seferoglu and Uzakgoren's research (2004) which stated that the majority of the students think the difficulties they encounter in listening comprehension are due to the bad recording quality and poor-quality tapes or disks. It can be drawn from this inconsistency that

the in-class facilities of ULIS, in particular, has been upgraded and there is an increasingly wider range of sources for authentic listening materials.

The least frequently influencing problem is sitting in crowded classes with the smallest mean of 1.96. It can be inferred that the volume of the classroom has a modest impact on getting information processes while listening. Besides, the students have the same viewpoint in this problem, which is indicated from the low standard deviation of 0.89. This result confirms the fact that most ULIS students attend English classes of small sizes (less than 30 students in each class).

In summary, the chapter has presented major findings obtained from the questionnaires. After that, the discussion of those findings has been given. The next chapter would focus on the summary of the findings, pedagogical implications, limitations of this research and suggestions for teachers of English, based on the results discussed before.

CHAPTER 5: CONCLUSION

This chapter provides a summary of all the findings in this research as well as implications from the findings. Limitations of this study and suggestions for further study are also discussed.

5.1 Summary of the findings

With the aim of answering the research question raised at the beginning of the study, the data collected from the survey questionnaire was analyzed to draw conclusion. The major findings are summarized as follows. The paper has explored the frequency that students encounter different types of difficulties caused by different factors as categorized in the literature review. Regarding the factors pertaining to the speakers, the factors from the fast speed of the delivery and the reduced forms were the most frequently faced by the students while most of them did not find it difficult when encountering the signal words. With regards to the factors relating to the learners themselves, most of the participants considered the lack of vocabulary and ineffective listening habits to be the major obstacle for them while listening English. In addition, the use of unfamiliar words such as jargon and idioms, as well as too much information in a recording, was perceived as the most popular problems when it came to the difficulties caused by the listening material itself. Lastly, the listening difficulties caused by the physical-setting did not show as major problems.

5.2 Implications

Based on the result study formerly, listening is perceived as one of the most difficult skills for students as foreign language learners even though they are students in English Education Department. Some of the problems described above are inevitable, for instance, certain features of the messages and the speakers. However, teachers and learners themselves can at least equip some essential solutions in order to discover more effective listening strategies. The researchers offer the following suggestions:

5.2.1 Implication for the teachers

With a view to finding good strategies to boost the listening proficiency among their students, the instructors are recommended to utilize some suggestions classified by three stages of an English listening session.

Pre-listening activities:

The pre-listening phase is vital because it builds a foundation for the whole listening process. The initial pre-listening activities prepare students by helping them activate their background knowledge and clarify their expectations and assumptions about the text. An ideal pre-listening task is the one in which the teacher, through carefully constructed questions, helps the students to activate the background information and language components needed to

comprehend the text without directly revealing this information to the students. Before each listening class, teachers should adopt and adapt listening materials that arouse their students' interests and match their background knowledge. Furthermore, pre-teach vocabulary, guiding students to underline certain keywords, guess the meanings of new words can help the students to familiarize with the topic, activate their prior knowledge as well as develop the confidence of students (Underwood, 1989). Lastly, by improving the learning environment of listening classes which includes listening laboratory facilities and the quality of cassettes tapes, teachers can enhance the concentration during listening period among their students.

While-listening activities:

The while-listening stage includes a series of activities that a learner does in the process of listening to a passage in order to elicit messages from spoken language. There are a variety of techniques that can be used to lead the students to focus on the general ideas of the text they are listening to. Directed listening helps the students to extract relevant information from the spoken discourse, which can greatly contribute to eliminating students' ineffective listening habits. The lecturers also need to be aware of students' psychological issues. Both anxieties and boredom will interrupt in their learning and it indicates as a barrier in their listening comprehension test. Teachers should familiarize their students with the rules of pronunciation as well as accents of different native speakers in order to help them hear the rapid natural speech to recognize the language in use. Another recommendation for teachers is to help their students to develop the necessary skills of listening comprehension such as listening for understanding particular information, listening for the main ideas, explanation and inference, listening for intended meaning through different tasks at different levels.

Post-listening activities:

In this stage, students take the knowledge they have gained from the listening texts and utilize it for further purposes. One suggested activity that can be applied for this phase is to force the students to summarize and make an outline of the information provided in the recordings. Additionally, instructors are advised to give their students the necessary feedback on their performance because it can promote their error correction and increase their motivation, which helps them to develop their confidence in listening exercises. Last but not least, lectures can also provide supplementary background knowledge and linguistic knowledge which are theme-related to the previous materials in order to boost their students' familiarity when dealing with the same topics subsequently.

5.2.2 Implication for the students

First and foremost, English learners should have a clear perception on the importance of listening skill when learning a second language, from which they can build a high degree of autonomy in approaching this skill. Secondly, The students need to train their listening at home intensively in order to help them overcome their problems and improve their linguistic ability. They need to be exposed to various accents by listening to the English songs or watching TV. This will also enrich their vocabulary accumulation automatically. More efficiently, many students can have a habit of checking new words in English dictionary from the beginning of their learning process. It is advisable that they guess new words, underline key words beforehand and take note the main ideas to keep up with the speed of the speakers. Finally, learners are recommended to develop their interest in the cultures of other parts of the world, especially the culture of target language (English) with a view to fostering their understanding in English listening comprehension.

5.3 Limitations of the study and suggestions for further research

In spite of the researcher's great effort, this research still has some shortcomings.

First of all, due to the limited time, some other books, documents, articles and research papers that are related to this study could not be covered. The main sources of information to lay the foundation for this research are articles, journals, and previous research papers. Nevertheless, some other sources such as books have not been fully exploited. Hence, for further studies, researcher could dig deeper into this matter and create different, more innovative ways to categorize students' listening difficulties. Furthermore, the limited time also prevented the researcher from carrying out the interview, which would provide deeper insights into some unique cases to find out some feasible solutions to this issue. Therefore, the researcher recommends that further research should make use of qualitative method, specifically semi-structured interviews with students, to obtain more information about some effective listening strategies or techniques, making the research more comprehensive. Secondly, although the number of participants was sufficient to guarantee the validity and reliability of the study, it would be better if more participants were involved in the research, especially teacher participants as they could provide more insights into the nature of the problems as well as practical solutions to them. It is also highly recommended that other researchers conduct a study on a larger or different population such as the whole university students, sophomores, or non-English-majored students. Another suggestion is that further studies could be conducted into the causes of the problems, which would also help students overcome the obstacles and improve their listening skills.

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APPENDIX QUESTIONNAIRE DIFFICULTIES IN ENGLISH LISTENING COMPREHENSION AMONG ULIS ENGLISH MAJOR MAINSTREAM FRESHMEN

I am Hoang Anh Phong, the researcher of this research. I am doing research on the main difficulties in English listening comprehension perceived by first-year mainstream students of the Faculty of English Language Teacher Education at University of Languages and International Studies, Vietnam National University. I would like to ask for your help with the questionnaire to collect the relevant data for our study. I would like to emphasize that **there are no right or wrong answers**; therefore, I expect you answer the questionnaire items frankly. All the questions are in the form of close-ended rating scales so I hope it will not take much of your time and effort to accomplish. The information will surely be kept confidential to avoid disturbing your privacy. Thank you in advance!

-
1. Which of these skills do you find the most difficult?
A. Listening B. Speaking C. Reading D. Writing
 2. Please circle a number from 1 to 5 that indicates your perception of the difficulty level of listening skills after one year studying at the university according to the scale below:
1. Very Easy (2) Easy (3) Average (4) Difficult (5) Very Difficult
 3. Please circle a number from 1 to 5 that best describes your ability of listening skills:
1. Very Bad (2) Bad (3) Average (4) Good (5) Excellent

The table below includes some problems in your learning listening. Rate each statement below on the scale of ① to ⑤ that shows how frequent you encounter it.

① Never ② Rarely ③ Sometimes ④ Usually ⑤ Always

Mark the circles corresponding with your answers. Should you change the answers, erase or cross them out, and mark the other ones.

		Never	Rarely	Sometimes	Often	Always
A. From the speakers	I have difficulties in listening because...					
4	The speakers speak too fast.	①	②	③	④	⑤
5	The speakers have strange accents.	①	②	③	④	⑤
6	There are too many speakers involved in the recording.	①	②	③	④	⑤
7	I cannot recognize the ending sounds (/e, es, ed, k, t,...).	①	②	③	④	⑤
8	I cannot recognize individual words resulted from liaison and	①	②	③	④	⑤

	elision phenomena.					
9	I cannot distinguish between the content and function words because of the stress.	①	②	③	④	⑤
10	I cannot recognize signal words (however, although, firstly, secondly,...).	①	②	③	④	⑤
11	The speakers use colloquial words and slangs.	①	②	③	④	⑤
B. From the learners	I have difficulties in listening because...	Never	Rarely	Sometimes	Often	Always
12	I don't know the words/vocabulary.	①	②	③	④	⑤
13	I don't have the social and background knowledge of the topic.	①	②	③	④	⑤
14	I was worried.	①	②	③	④	⑤
15	I cannot concentrate.	①	②	③	④	⑤
16	I have bad/ incorrect pronunciation.	①	②	③	④	⑤
17	I cannot predict the content.	①	②	③	④	⑤
18	I have ineffective listening habits.	①	②	③	④	⑤
C. From the materials	I have difficulties in listening because...	Never	Rarely	Sometimes	Often	Always
19	There are many unfamiliar words, jargons and idioms.	①	②	③	④	⑤
20	The audios/videos use complex grammatical structures.	①	②	③	④	⑤
21	There are both monologue and dialogue (or more) in the	①	②	③	④	⑤

	recordings.					
22	The audios/videos are too long.	①	②	③	④	⑤
23	There is too much information in the recording.	①	②	③	④	⑤
24	There are distracting sounds in the recording.	①	②	③	④	⑤
D. From the physical settings	I have difficulties in listening because...	Never	Rarely	Sometimes	Often	Always
25	The equipment and facilities have poor quality.	①	②	③	④	⑤
26	There are background noises.	①	②	③	④	⑤
27	The classroom is too large.	①	②	③	④	⑤
28	The classes are too crowded.	①	②	③	④	⑤
29	Others (please specify): ...	①	②	③	④	⑤

PERSONAL INFORMATION (OPTIONAL)

Name: _____

Class: _____

Email: _____

THE END

Thank you very much for your participation!

Applications of educational narrative games: from health to sciences

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Abstract. Educational narrative games are an emerging form of learning that incorporates elements of storytelling and simulations focusing on the emotional connection between the student and the subject. They are an effective way to reinforce understanding of important complex concepts, provide context for new information and foster a culture for learning. Educators are enabled to create content that is more engaging and fun than traditional textbooks or lectures, which can be difficult for some students to follow. In addition, narrative games can be used in conjunction with other forms of education such as videos to help students retain information more easily.

In Technologos, we have successfully applied narrative games to address numerous societal problems in a variety of settings, ranging from sexual health education and digital literacy for aging populations to internet safety for young students and data science. For example, in one of our projects, Mindland, we use educational narrative games to teach mindfulness skills to youth. Through these games, students can learn how to be more aware of their own feelings and emotions, which can help them manage stress and anxiety, improve their focus and attention span, and improve their memory retention skills. In addition, with these skills they will be able to make better decisions when faced with stressful situations or making important decisions that affect their lives as well as those around them. Educational games have proven to provide better motivation, immersion and learning outcomes through adaptiveness to rich environmental settings, intrinsic imaginations and interaction with empathetic “non-playable” characters.

We believe that educational narrative games have a lot of potential for future development; they revolutionise how individuals learn while still being able to interact with others around them through gameplay.

Keywords: serious games, narrative games, health, sciences, interactive education, educational technology.

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1. Introduction

Serious games are games designed for a primary purpose other than pure entertainment. They are usually developed for training and teaching and include educational elements like learning or practicing a skill, growth and development, and cultivating a capacity to overcome challenges. They also include entertainment and gamification elements, like fun and playfulness, social connectivity, and rewards and punishment as a positive and negative reinforcement respectively. The player is committed to achieving a goal in game, while learning about different educational concepts. Serious games are not only used in education, but also scientific exploration, engineering, healthcare, management, politics and other industries.

Apart from learning and training, serious games can be used to trigger behavioural change and even to increase empathy. The foundational elements of serious games are: the story, gamification, immediate and individualised feedback, and learning as a goal. Among the advantages of serious games is the increase of engagement and motivation, the facilitation of profound reflection, the improvement of memorisation and retention, and often having a positive social cause and impact. Research has shown that serious games are more effective on self-reported learning outcomes of students than traditional classroom instruction (Bakhuys Roozeboom, 2017). Due to the learning effects and increased engagement that narrative and gameplay can offer, serious games can be considered an alternative pedagogical medium for attracting students with different needs and expectations (Garneli, 2017). It has even been shown that serious games can potentially be used in interventions that aim to alleviate depression (Abd-Alrazaq A, 2022). They also have the potential to improve verbal, nonverbal, and working memory in older adults with cognitive impairment (Abd-alrazaq A, 2022).

Narrative games is an emerging and promising form of learning. They are digital serious games that focus on and offer a great way of interactive storytelling and branching narratives., which is something widely used in the development of serious games in general. The player is often invited to interact with characters and different situations and make decisions that influence the development of the story. Storytelling can be a strong medium to transmit knowledge and key learning messages, as well as cultivate acceptance and empathy in players. Narrative games can even be inspired by real stories of people with a diverse background, that can contribute to cultivating empathy and understanding in players towards various social issues and marginalised communities.

Visual novels are a type of narrative game that has originated in Japan. They have educational potential through providing easy access to the subject matter, defamiliriasing the familiar, using branching narratives and setting clear goals (Oygardslia, 2020). Even though serious games have been around for a while, there is a lot of space for experimentation with different mediums and methodologies to create immersive games and learning experiences that can be widely adopted both in educational settings and in the public.

2. Purpose

The purpose of this paper is to present projects developed by Technologos Research and Innovation Services in the field of education through serious games, and more particularly narrative games, showcasing how they can be applied in different social and educational sectors. The methodology of the design and development of the games will also be overviewed, particularly regarding the storyline and characters utilised in the games to make them more attractive and effective.

Narrative games and visual novels have educational potential and their future development should be pursued; they revolutionise how individuals learn while still being able to interact with others around them through gameplay.

In our research we experiment with different ways to make our games more effective and applicable to different fields for education and awareness raising. We explore different types of serious games and narrative games, different points of view, storylines, dialogues, graphics and aesthetics. We conduct research in how to create engaging characters and an environment that inspires players to interact with the information that is transmitted through the game experience.

Our mission is to contribute to unlocking the potential that different forms of serious games have in education, and not only for students. People of any age and background can benefit from having access to games that provide a fun and engaging way for them to learn something new and grow.

3. Methodology

Narrative design for video games has become a field of study within game design. While developing our narrative games, we use and experiment with different methods to make the games more engaging, interactive and effective in transmitting knowledge and even triggering empathy in players and learners. Although we tend to use multiple overlapping frameworks (e.g., narrative branching and string of pearls narrative), we find the following two narrative structures to be crucial in achieving effective narrative game design.

I. Empathetic Non Player Characters

Characters are vital to a story, as they create conflict and action, sometimes only within the main character, through their fears and doubts. Interesting characters keep the gamer playing and a high involvement can be reached by identification with the characters (Hohl, 2020). In addition, studies have shown that virtual characters in serious games can be an effective learning aid, causing heightened engagement and retention of knowledge (Gamage, 2018). Through the field of transportation theory, it has been shown that narrative transportation affects critical thought, beliefs, attitudes and intentions (Van Laer, 2014). In the next section, we will look at specific characters created for different projects that Technologos has developed.

II. Engaging and Interactive Storyline

In serious games, stories play an important role, as they help connect serious context with playing the game. Narration can be used to transport the training items, in the form of game action (Kampa A., 2016). The story can be presented in first-person (a narrative “I” who is part of the action), third person limited (the point of view of a single character), or omniscient (all knowing) perspective. Learning social skills means to be able to change perspectives and this could be done in serious games by choosing different characters. The most popular perspective is the narrating “I” perspective, that contains a high involvement by the player. The perspective or point of view in a game affects the player’s immersion and how they interact with the game. The relationship between the user’s freedom of interaction with the narrative experience, on story and discourse levels can impact the effectiveness of the game, and is therefore an important aspect that we consider during the game design process.

4. Projects and Use Cases

The team at Technologos Research and Innovation Services has worked on various projects during the past three years, applying their expertise in digital educational interventions, and serious game and simulation development.

Even though the primary focus and specialisation of Technologos' team is in digital intervention in sexual health education, collaborations with organisations across Europe that come from different disciplines, enabled us to successfully apply our expertise across different domains and sectors, such as data science, mindfulness, internet safety and GDPR education. This experience gave us the opportunity to expand our knowledge and skillset to innovate in the area of serious games development.

Throughout all of our projects we have participated in, the participants from our interventions and end users of the projects have stated they benefit from those digital interventions and serious games, and believe they can benefit from such interventions in other topics apart from the one they tried.

In this section we will explore the projects and games developed by the Technologos Research and Innovation Services team in different areas of education (Table 1).

Project Name	Sector	Website	Logo
sGuide	Sexual Health Education	sguide.org	
Safe4Play	Sexual Health Education	safe4play-project.eu	
MindLand	Mindfulness	mind-land.eu	
Abacus	Data Science	abacus-games.eu	
DataShelter	GDPR Education	data-shelter.eu	
iSafetyApp	Internet Safety	isafetyapp.eu	

Table 1 Projects using serious games developed by Technologos

I. Sexual Health

The first area of research and game development for the Technologos team was sexual health education, as members of the team had academic experience in the field, using computer simulations to investigate a sex education intervention (Eleftheriou A, 2017). Sex education in and of itself is a controversial and difficult topic to teach to youth, and digital interventions offer enormous potential for young people's sex education. Literature shows that two-way, interactive and tailored education is a more promising form of education compared to traditional one-way passive education (Garneli, 2017) .

sGuide

sGuide is a digital sex education intervention developed by Technologos, which was funded by the Research and Innovation Foundation of Cyprus. sGuide gives young people the potential to engage with the world and their sexual interactions on a different layer (i.e., a digital representation) within which they can come to better understand the ramifications of their risk-taking sexual behaviour via a safer setting. sGuide was developed as an online platform, available in English and Greek, providing information and practice on a variety of topics in the form of infographics, videos, serious games, simulations and quizzes.

Each topic (Figure 1) has a “Learn” section, which includes text, videos and infographics, ending with an interactive game where the player can apply what they learned in a digital gamified setting. After the player has completed the game, they can move on to a quiz to test their current knowledge on the topic.

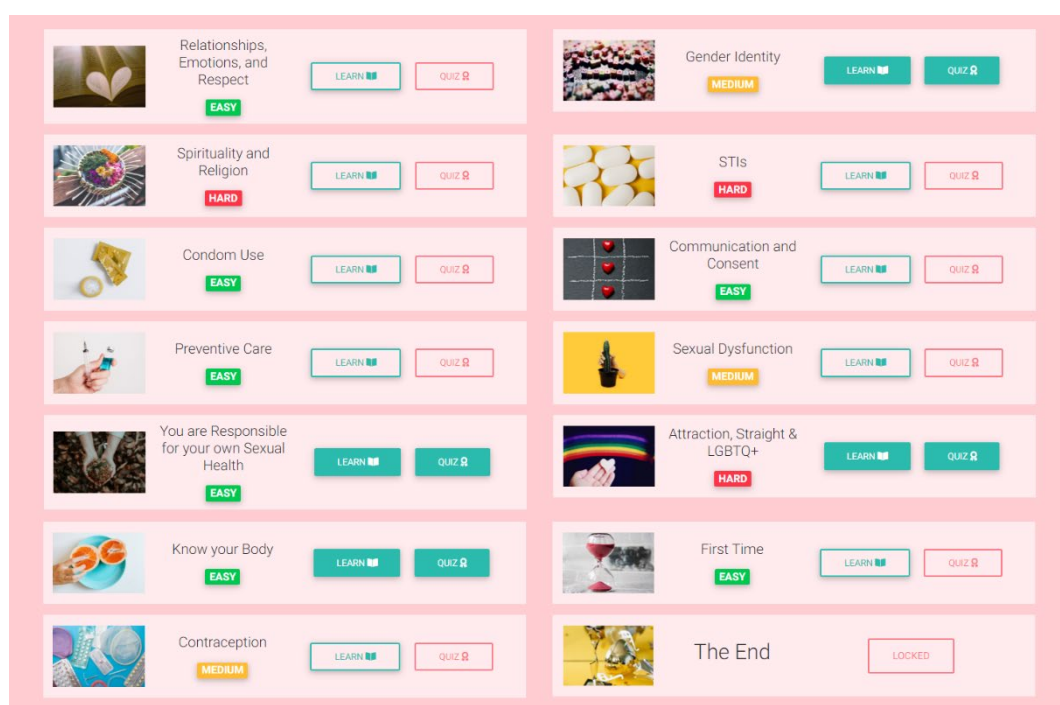


Figure 1 The topics offered in the sGuide sex education intervention.

The games developed for sGuide follow different formats, points of view, types of interaction and graphics, thus using a variety of learning methods and tools. The types of games used in the sGuide intervention are:

1. Narrative Games: The player follows the story of different characters and can interact by choosing what the character will say next, or what they will do, seeing the consequences of their decisions in the game's development (Figure 3).

2. First person view: The player sees the environment in first person view, and they are the main character of the story, choosing what they will say and how they will act in different scenarios (Figure 4).
3. Simulations where the player can input different parameters like the population, percentage of likelihood of having sex, condom use, percentage of people that have the HPV vaccine (Figure 2).
4. Quiz Format: The player is given a story and has to answer a question. For example, they can choose a contraception method for a couple's situation (Figure 5).



Figure 4 Simulation showing how condom use affects the spread of STIs (sGuide)..

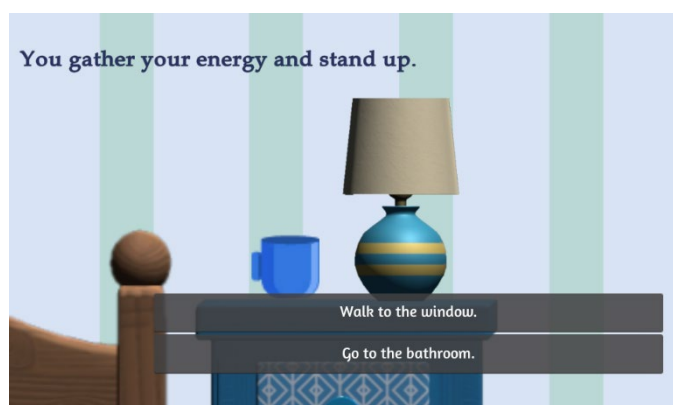


Figure 3 First person view game example (sGuide).

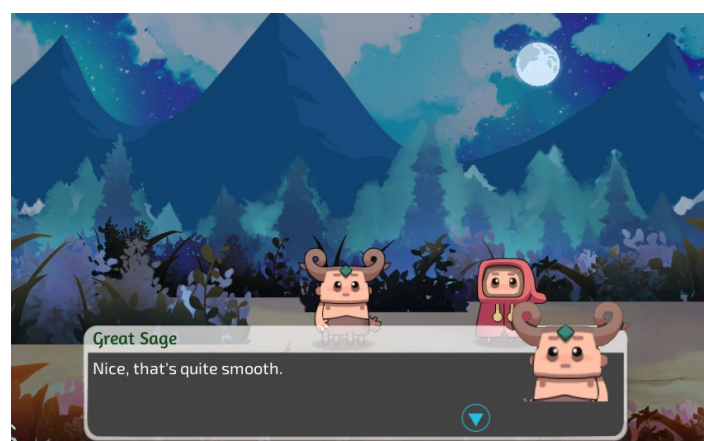


Figure 2 Narrative game example (sGuide).

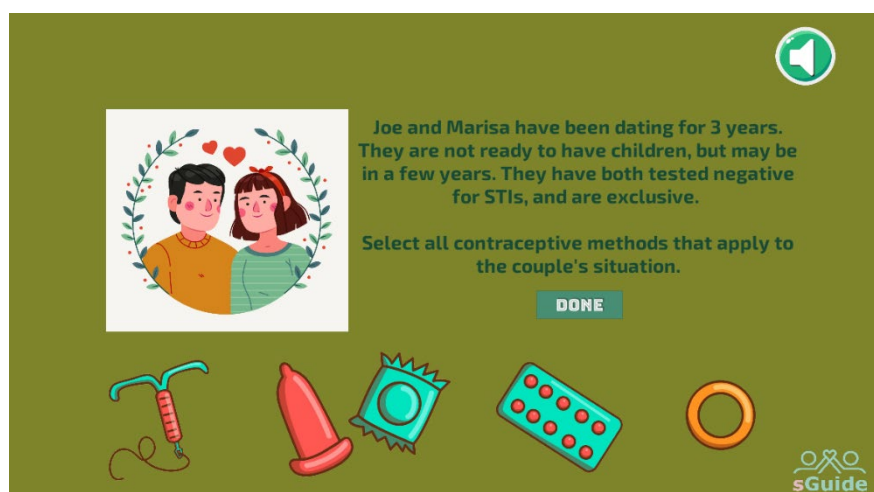


Figure 5 Quiz Format game example (sGuide)

In some of the games there was a continuing story with the same characters (camping games series). Feedback was collected from the users after playing each game, which was useful in the analysis conducted by the team to investigate how different types of games are perceived by players. It has been shown that narrative games (both from the first person and third person perspectives) offer increased opportunity for interactivity, which is one of the most important factors that contribute to the player's enjoyment of the game (Koulloufidou, 2022).

Even though sGuide has many different topics, they are connected using reward and gamification methods, providing incentives to players to complete all the topics. After each game, according to how well they did, the player receives condom badges and skill points (Figure 6).



Figure 6 Condom badges and skill points received in game (sGuide)

The player has a dashboard where they can view all their badges and skill points and keep track of how many they are missing (Figure 7).

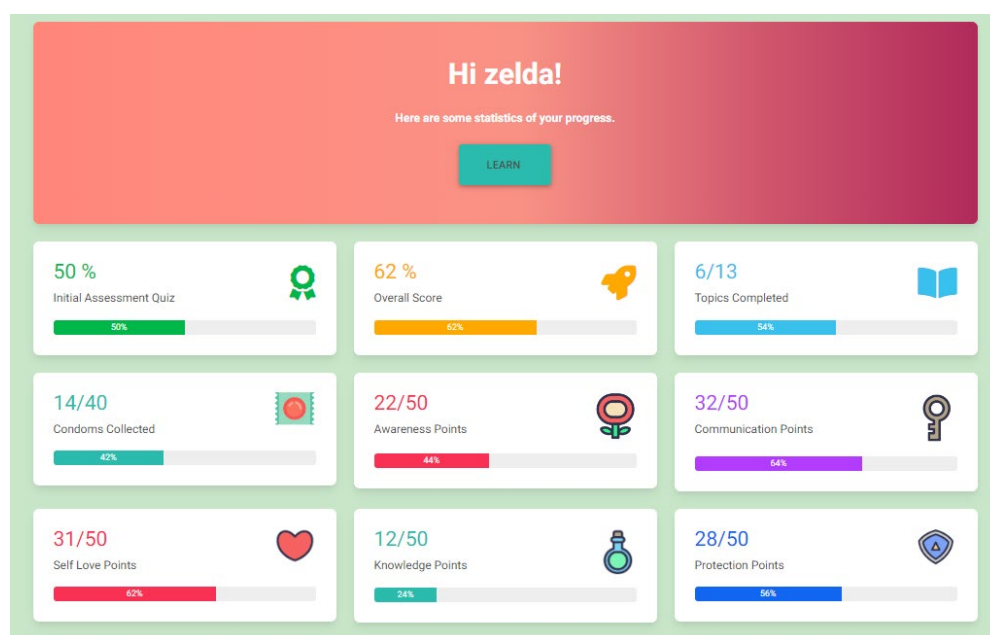


Figure 7 Player dashboard with badges and skill points (sGuide)

Safe4Play

Safe4Play is an innovative educational intervention for safe sexual and reproductive health, which was funded by the European Union. It was developed in cooperation with other partners from Europe. The intervention's concept is that the player enters a house where they have to solve a list of riddles by finding specific household items, which are the answers to the riddles. When the player clicks on each found item, they are presented with a minigame related to a sexual health topic. Technologos developed a series of minigames for each topic (Table 1).

Game	Used in topics
Game Show (Figure 8)	- Heat Destroys Condoms - Using condoms consistently and correctly - Window period for STIs
The Worst Play Ever (Figures 9, 10)	Treatment of STIs
Catch that Bug (Figure 11)	Scabies and crabs
Human Papillomavirus (HPV) Simulation (Figure 12)	STIs prevention
Miss Conception	- Oral Sex and STIs - Contracting an STI

Table 2 Games developed for each topic (Safe4Play)

An important feature of this project is accessibility and localisation. Apart from English, all the games were translated in Greek, Arabic, and French.

The Game Show and Miss Conception games follow the format of questions with multiple choice answers and True or False statements respectively. The Game Show is embellished with images corresponding to each question and each option the player selects, as well as with a “presenter”, the condom character (Figure 8) who guides the player and gives feedback.

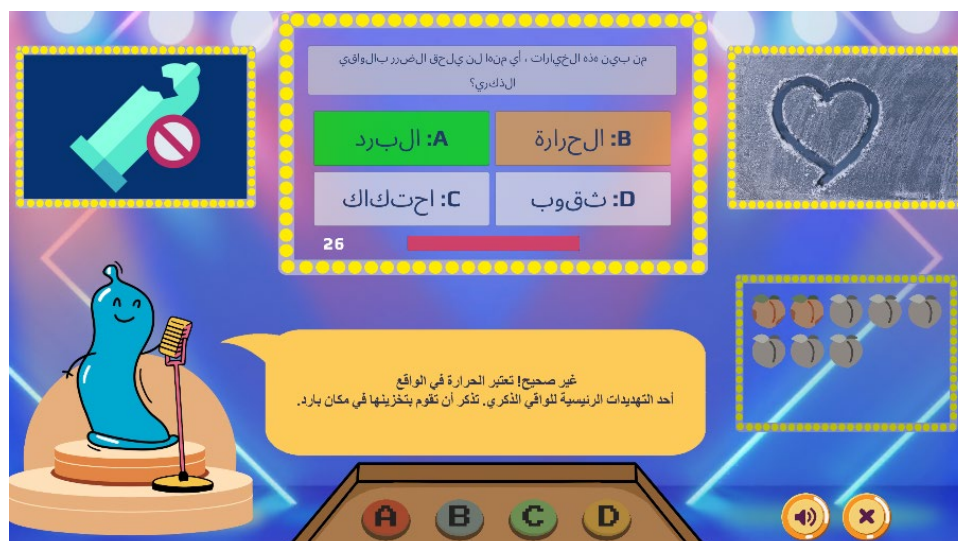


Figure 8 Game Show in Arabic (Safe4Play)

In the Miss Conception minigame, apart from explanations given after each question, the player is provided with external links and resources relevant to their country.

The Worst Play Ever game was created in the form of a digital play, where the actors are the different STIs (gonorrhea, HIV, chlamydia, syphilis, mycoplasma, herpes, crabs) (Figure 9). The setting is a war between humanity and the STIs, through which the player learns the symptoms that each STI causes. Throughout the play, the “actors” forget their lines, and the player has to whisper the correct lines to the actors (Figure 10). All the STI characters were designed with inspiration from how the different viruses and parasites look like in reality under the microscope. The methodology that was followed in the design of this game was to have STIs as non-player characters (NPCs) to facilitate the learning process, as players can associate the character traits of the STI characters with the information and symptoms of the actual STIs. This approach makes it easier and more organic for players to digest and retain information about these concepts, while they are having fun with the story and not actively



Figure 10 The Worst Play Ever (Safe4Play)

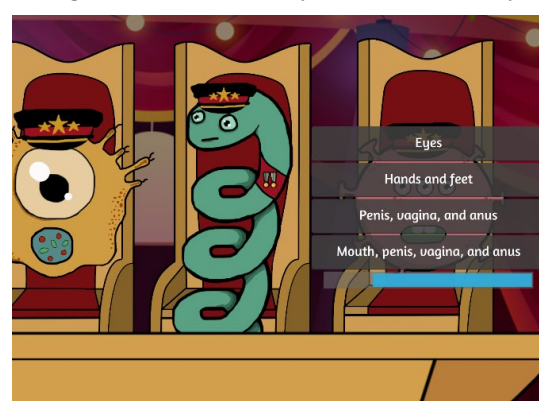


Figure 9 Player Interaction in the Worst play ever (Safe4Play)

focusing on remembering the correct answer.

The Catch the Bug minigame has a more action-based format, as the player has to handle a net using a mobile joystick to catch parasites, specifically crabs and scabies. Every time the player successfully catches a parasite, they are presented with a fact about that parasite and its symptoms when contracted. The player also has to avoid bombs, an element that introduces a challenge to the game that keeps the

player engaged (Figure 11). Throughout our research, we have come to understand that the right amount of challenge in a game can increase engagement of the players and keep them interacting with the game for longer. One method that we used to test this concept was to give the game to students of different ages and watch their behaviour, reactions and performance while playing this game, and then subsequently adjusting the game based on their experience, to achieve an optimal level of challenge and enjoyment.



Figure 11 Catch that Bug (Safe4Play)

In the HPV Simulation, the player selects certain parameters before the simulation begins:

- Male and female population
- Likelihood of having sex in each interaction
- Population percentage that has the HPV vaccine

They then watch as the simulation unfolds through a simulated seven-day period, as the characters interact. At the end of the simulation, they see how many people contracted HPV, and can see the positive difference that the HPV vaccine makes in the spread of the virus.

Game-like simulations are a great way to break down complicated concepts and processes, like the spread of infections in populations, and show which factors can affect a process (e.g. use of condom) in a more practical and visual way.



Figure 12 HPV Simulation in French (Safe4Play)

I. Mindfulness

Mindfulness is paying attention to our experience in a way that allows us to respond rather than react, in a non-judgemental way. It is a quality of inner-stillness that is always available, even when our life or circumstances feel out of our control and chaotic. It is possible to be aware of everything in our experience, including anything we experience through our five senses, as well as our thoughts and emotions. Similar to any process in life, if we are to actually learn anything beyond what our body automatically does for us, we need to express interest in it. And this is what mindfulness is, interest in Mind, the nature of intelligence and source of who we actually are. When we observe our thinking we start being blatantly aware of its automatic nature. We begin to discover that we cannot consider thinking as who we are, as our intelligence, and thus it makes no sense to actually identify with the thought process mechanism. More importantly, we discover for ourselves that by noticing the thoughts we can actually let them go, and eventually even alter their nature.

Many studies show that practicing mindfulness also reduces stress. In 2010, Hoffman et al. conducted a meta-analysis of 39 studies that explored the use of mindfulness-based stress reduction and mindfulness-based cognitive therapy. The researchers concluded that mindfulness-based therapy may be useful in altering affective and cognitive processes that underlie multiple clinical issues.

Many young people, especially those coming from refugee and immigrant communities don't have access to mindfulness tools, which can prove valuable for the development of self-awareness, understanding and regulation of emotions, sound decision making, and healthy relationship and communication skills. A well-rounded education should provide such tools that can help young people navigate their way in the world, find their purpose and take initiative with confidence, while being able to connect with other people in a healthy and respectful way. Currently in Europe, neither mindfulness nor self-awareness are being taught to youth in a systematic way, even though in the past years many schools are starting to adopt mindfulness programmes. Adding to the above points, more and more people are exposed to the digital world, as at year-end 2017, there were 465 million unique mobile subscribers in Europe, equivalent to 85% of the population (GSMA, 2021).

MindLand

MindLand's aim was to create a digital intervention focused on self-awareness, that provides mindfulness training to youth through curated material, interactive exercises and prompts to help youth investigate their inner lives. MindLand offers a set of tools that are readily available to its users, like educational videos and meditation exercises that can help youth when dealing with uncertainty and fears due to unforeseen circumstances, or simply due to the stresses of everyday life. MindLand offers a guided experience for youth to deal with difficult emotions, become more mindful of the beliefs that influence them, and build self-esteem to help them take more initiative and learn to choose what influences them when dealing with fears and uncertainty. An important objective for MindLand was for the intervention to be inclusive and accessible to youth from any socioeconomic background. This was done by aiming for digital transformation of a mindfulness course, and by using localisation and translating the content to languages that are useful for youth facing various crises today in the world.

The MindLand intervention is available in English, Ukrainian and Arabic. It includes mindfulness meditations, educational videos, text content, voiceovers, personalisation, a virtual journal to take notes and a fun character that guides the user through the process, providing an aesthetically pleasing digital

environment. It was important during the design of the game and the graphics to create an environment that is visually and emotionally consistent with the rest of the experience of going through the content. In MindLand, users found the graphics and environment to be relaxing, calming and relevant.

A character named Uni was created especially for this project, embodying a guide in the form of a cute enlightened forest creature. It guides the player through all of the content and activities, and meditates with them. The progress of the player when going through each topic is shown on the top left corner of the screen. At any time, they can go to the practice screen and do a meditation exercise, as explained in the material (Figure 13).

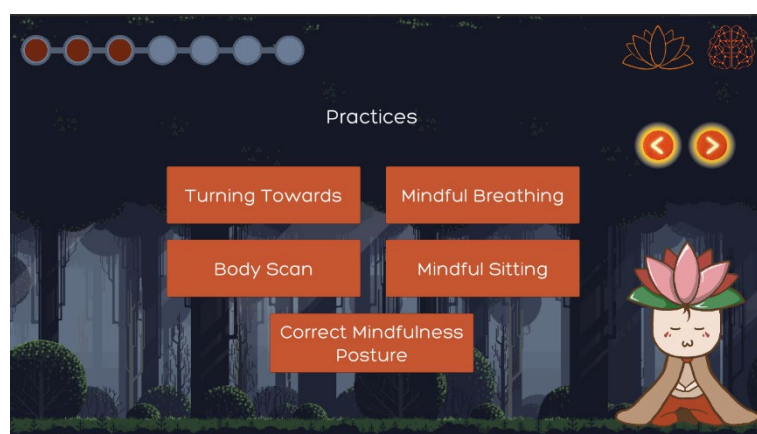


Figure 13 Character Uni meditating with the player (MindLand)

At several points of the intervention, the player is asked to make a choice that fits their individual experience, and the material after that is adjusted to their answer, making MindLand a more personalised intervention (Figure 14). The player can also take notes in a virtual journal to complete the healing process thoroughly (Figure 15). Feedback from users indicated that the elements of making a choice and keeping notes in a journal made them feel more connected with themselves, and made the process feel more personal and useful to the issues they wanted to tackle by using MindLand.

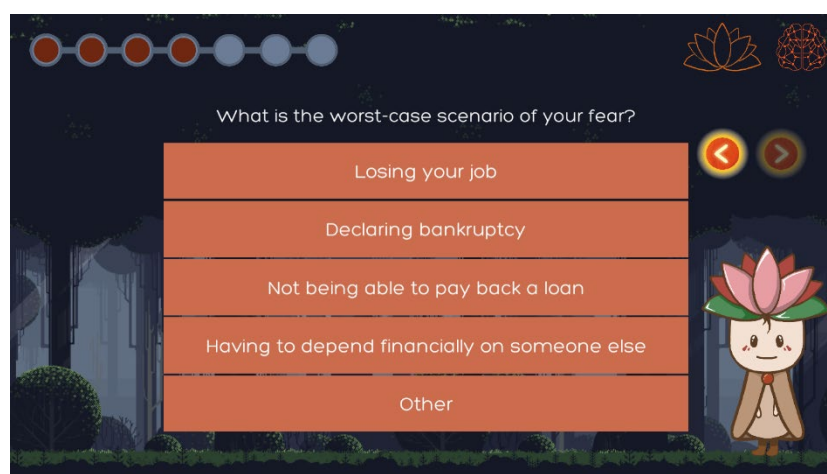


Figure 14 Personalised choices (MindLand)

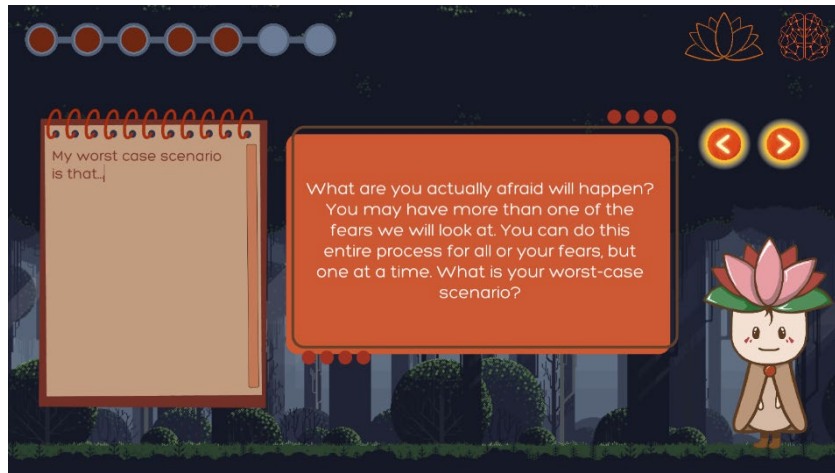


Figure 15 Journal for player to take notes (MindLand)

II. Data Science

Data Science is a relatively new field in tech where complex business problems are solved through data analysis. Data scientists are often experts who understand both the IT and business worlds. With more and more companies around the world, recognizing the importance of interpreting big data to get insights that will boost their revenue, many employers are willing to dig deeper into their pockets to hire data scientists.

Due to the rapid technological innovations in IT, the skills of IT graduates do not match market needs. There is also an alarming shortage of data experts both globally and in the EU, with this lack of core intermediary expertise having created a chasm between e-infrastructure providers and scientific domain specialists. Data specialists accounted for far less than 1% of total employment in most Member States.

Abacus

With the introduction of Abacus, Data Science will not be for the well-trained data scientists only, as people will better communicate with experts and will better understand data thanks to Abacus. Smart companies, organizations and local communities will ensure that many of their members will be able to speak the language of data and use it to improve their quality of lives. By empowering citizens and employees with these fundamental skills, industries and the society in general will realize tremendous levels of innovation and efficiency.

More specifically, the Abacus intervention offers a collection of narrative games and quizzes in the topics of artificial intelligence, complex algorithms, quantum cryptography, digital signatures, encryption and protocols (Figures 13,14, 15). The player has to participate in the characters' discussion about these topics and is given immediate feedback indicating if their answer was correct or not. Immediate feedback is given by changing the colour of the scene and using sounds that are correlated to correct or wrong answers.

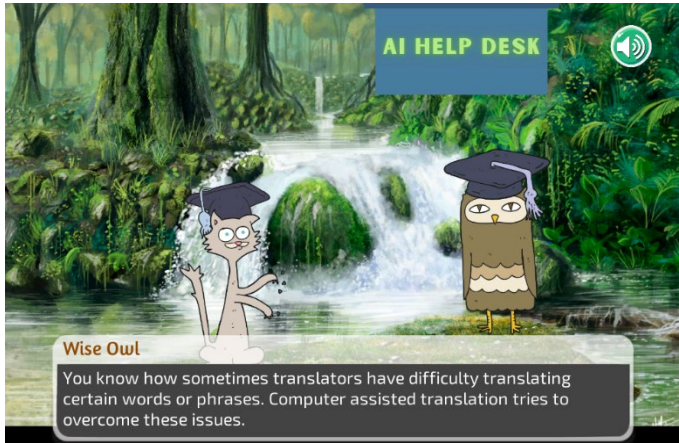


Figure 18 Artificial intelligence game (Abacus)

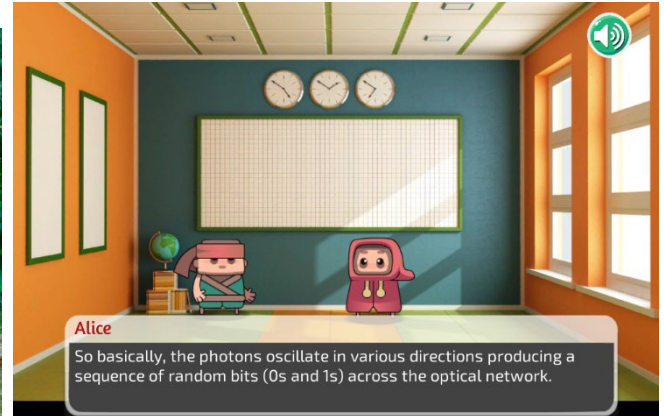


Figure 16 Quantum Cryptography game (Abacus)

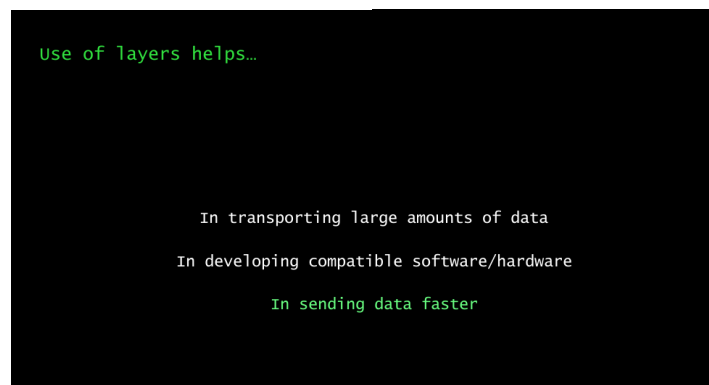


Figure 17 Text based adventure game on protocols (Abacus)

III. GDPR Education

In the past decades, the scope of required skills related to digital transformation is growing uncontrollably, something that can prove overwhelming for youth and students who are transitioning to the workforce, but also for organisations that need to continually adapt and evolve. Understanding GDPR and figuring out its complexities has been a challenging task for organisations, especially to smaller ones that don't have easy access to trainings and seminars.

Repercussions and penalties for organisations that don't comply with GDPR are extremely serious. A 2021 survey by McCann FitzGerald showed that 80% of companies say that they are compliant with GDPR. However, 9% say that they still do not log personal data breaches, while 21% say they do not conduct reviews of records of data processing activity. Only 51% of organisations reported conducting third party risk assessments, and just 36% require the completion of questionnaires by third-parties confirming compliance.

It has also been challenging for graduates and new hires, that apart from their own area of work, they find an additional stressor in being up to date with such important regulations that intrinsically affect their workplace and its processes. In addition, students may not be aware of what GDPR entails for their rights around their own data. In general, many citizens and professionals still believe that GDPR is an IT regulation, rather than one that has implications in most activities of individuals and organisations.

DataShelter

DataShelter aims to decomplicate GDPR and make it more approachable to students. By providing them with an engaging and immersive GDPR training, their confidence will be increased when applying and interviewing for jobs. In addition, on a practical level, their employability will actually be enhanced, as for employers nowadays it is a major attribute to have people that are familiar and can work on the organisation's processes with GDPR in mind. Having a stable foundation, young employees can then go on to deepen their knowledge and apply it in different situations that may arise in the workplace.

In addition, DataShelter can equip students with the capacity to understand the implications of GDPR on their own data as customers, users, students or employees, making them aware of their rights and choices in digital spaces, enhancing their digital readiness and resilience as citizens.

DataShelter strives to include young people with challenging backgrounds and fewer opportunities as participants, to offer them access to this training and ways to improve their employability and digital skills. The DataShelter intervention uses innovative methods of teaching, such as serious games, simulations, videos and infographics. The material is available in English and Greek.

Some of the narrative games used in the DataShelter project present different scenarios where GDPR has to be applied, to simplify real life situations for students as subjects and future employees. The player has to assess each situation and scenario and make the correct decisions according to the GDPR. One example is a scenario where a customer calls a company to complain and asks for personal details of an employee. The player has the role of the receptionist, deciding how to reply to the customer with GDPR principles in mind (Figures 19, 20).

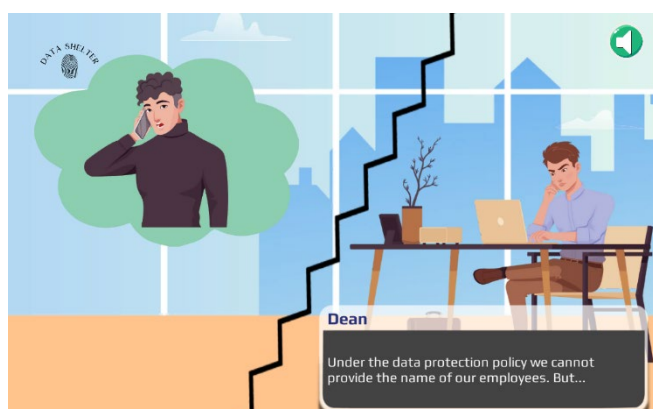


Figure 20 Narrative game for GDPR Education (DataShelter)

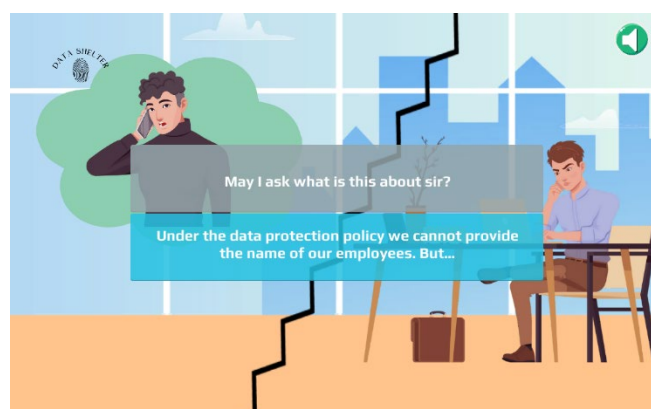


Figure 19 Making choices in narrative game for GDPR Education (DataShelter)

Another example of a scenario presented is when an employee finds a USB device outside their workplace and has to decide how to handle the situation: if they will take it to the IT department, if they

will insert it in their computer, and so on. The ending of the story changes according to the player's decisions throughout the game (Figure 21).



Figure 21 Storyline of narrative game for GDPR education (DataShelter)

IV. Internet Safety

The internet has been identified as a (potentially) very valuable avenue for comprehensive, interactive and youth-friendly education (Simon L, 2013), with online sites offering a wide range of innovative, youth-friendly ways to engage young people in education. For example, young people worldwide are using the internet to access information on sexual and reproductive health and rights. New social media platforms have emerged that facilitate online digital interactions with young people, which fill a much-needed gap.

An advantage of serious games as a means of learning about internet safety is that they allow users to train for decision-making situations where the wrong choice may be inherently dangerous or involve some risk, such as in a grooming scenario, that might be life-threatening for the victim.

iSafetyApp

The main objective of the iSafetyApp project was to create a serious game that will teach students Internet Safety skills, featuring personalisation using Artificial Intelligence methods.

Using the expertise of the different partners the consortium created a cutting-edge game that can measurably increase the ability of students to stay safe in the internet. The target group is defined as students roughly between 12 and 18 years old. A second target group consists of teachers who will be given concepts and materials for implementing the game as a training tool in the classroom.

The consortium created this learning approach in order to help weaker learners who might not be doing well in a formal school setting. The game is seen as a tool that can be used in support of class work in order to activate students in a non-traditional manner and help them acquire essential skills that they are not learning in the usual school programs. The consortium can also benefit from different experiences in the different countries when optimizing the game concept. This is especially relevant when creating a game that can equally appeal to girls and boys and when specifically targeting disadvantaged learners with learning difficulties because their situations can be vastly different in different societies.

The Technologos team created mini games, videos (Figure 22) and infographics (Figure 23) with educational material on internet safety, making the content more attractive to students.

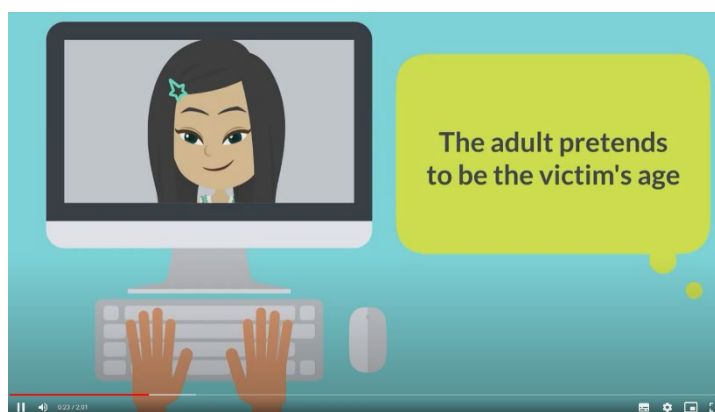


Figure 22 Video on Internet Safety (iSafetyApp)

BAD IMPACT OF SOCIAL MEDIA YOU SHOULD BE WARN

Social media is fun. Apart from being entertainment, many positive benefits can be obtained from social media, such as connecting with friends, using it for online business, learning new things, and others. On the other hand, social media can cause negative things when we are not wise in using it.



Addiction

Anything in excess is not good, including social media. It can be more addictive than cigarettes and alcohol. It has a powerful magnet for many people that leads to them checking it all the time without even thinking about it.



Expectations

Seeing the success, achievements, and all the advantages that other people have. Social media forms unrealistic expectations of life and friendships in our minds. Many use it as motivation, but many also feel insecure or inferior to themselves.



Consumptive Behavior

Using social media unwisely also leads to consumptive and wasteful behavior. In social media, we can easily find various interesting items that we want to have, so it doesn't matter whether we really need them, we are tempted to buy them.



Affect Mental Health

Spending too long on social networking sites could lead to poor mental health. Social media lets you see the carefully selected best parts of everyone else's lives, which you then compare to the negatives in your own life. Anxiety and insecurity are the most mental health problem caused by social media.



Conflict and Bullying

Sometimes, social media becomes a place of hatred and criticism of someone. These online attacks often leave deep mental scars and even drive people to hurt themselves or take their own lives, in some cases. In social media, we are free to express our feelings but you have to pay attention to the existing limitations.

ONLINE SEXUAL HARASSMENT

Online sexual harassment is any unwanted sexual behaviour online. It can make a person feel threatened, exploited, coerced, humiliated, upset, sexualised or discriminated against.

WHERE

Anywhere online (social media, games, messaging apps).
Publicly, privately, or both at the same time.

HOW

Uses images, videos, posts, messages, memes, emojis
Includes a variety of different behaviours.
Can overlap with offline experiences of sexual harassment or discrimination.

EXAMPLES

- Bullying someone for online behaviour outside common gender stereotypes.
- Body shaming by embarrassing someone for the way their body looks (e.g. mean comments).
- 'Sexting' someone by sending them an unsolicited nude or nearly nude image, or sending real or fake photos of the victim to others.
- Sharing online pornography, whether as a link or image, because it was seen by the sender as 'funny'.
- Using offensive language against someone based on their gender identity or sexual orientation.

HOW TO STOP IT

- Do not forward messages, photos or videos that might hurt other people.
- Do not send messages when you don't agree with the content.
- If a person or incident on the internet doesn't seem right or makes you feel uncomfortable inform an adult that you trust.
- If you suspect that a friend or classmate is an online sexual harassment victim then you should inform an adult that you trust.
- Do not respond to online harassment or cyberbullying because that might make it worse.
- Don't be ashamed if you fall victim to online harassment. It is not your fault!

HELP

You can address any online sexual harassment or cyberbullying incident by calling the help line 1480.

Source: <https://www.childnet.com/help-and-advice/online-sexual-harassment/>

Online safety guidelines

STRONG PASSWORDS

Quick tips for creating and saving your online passwords

ADD VARIETY

Use uppercase, lowercase, characters and numbers.

DO NOT RECYCLE

Do not use the same password for all of your accounts.

DO NOT USE PERSONAL INFORMATION

Avoid using birthdates or names from your loved ones.

MAKE IT LONG

Use passwords longer than six characters when possible.

CHANGE OFTEN

Make sure to review your passwords and change them frequently.

USE A MANAGER

Password management apps and sites can help keep track.

Visit our site www.isafetyapp.eu for more!

iSafetyApp

Figure 23 Infographics on Internet Safety (iSafetyApp)

5. Conclusion

Serious Games are becoming increasingly popular as educators begin to unlock their capabilities. At the same time learners are more used to games in their everyday life and technology grows to be ever present around us.

On the other hand, serious games have potential that can be tapped into not only by educators, but also by researchers, activists and creators from any field, that aim to raise awareness for a specific issue or highlight the experiences of marginalised people and communities. By now, serious games should be perceived not only as digital educational tools, but creative media that can affect people's empathy, understanding and awareness, and have a positive impact in society.

It is therefore important to actively move into more interactive and engaging methods of transmitting knowledge and experience to people, taking advantage of the creative media and digital technologies that are continuously being developed.

In this paper, it has been shown that there are no limits in areas or sectors where serious games can be used to have a positive impact on learners and the wider public, and benefit anyone regardless of their background or capabilities. We firmly believe that narrative games, and the art of storytelling within them, have tremendous potential to impact players in profound ways. This is because stories are inherently relatable, and can be used to make lessons more engaging, memorable, and easily understood. By immersing players in the game's narrative and allowing them to identify with its characters, these games have the power to create a lasting impact on players, shaping their perspectives and experiences in powerful ways. We have investigated different ways of designing a narrative game, and how graphics, interactivity, characters and challenge levels can influence a player's experience and increase their engagement and effectiveness of learning. As a part of our ongoing research, we are focusing on the concept of branching narratives and their ability to empower players with creative agency. By allowing players to make choices that shape the story, branching narratives promote an interactive and engaging learning experience that is far from passive. We believe that this approach can be particularly effective in enabling players to practice and apply new concepts in a way that is both meaningful and enjoyable, ultimately leading to a deeper understanding and retention of the material.

At Technologos Research and Innovation Services, we continuously strive to be at the forefront of research and development in serious games, investigating different types of games and interactive education methods, and applying them in new areas and sectors.

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Denotation, Connotation, and Myth in Indigenous Songs: A Semiotic Analysis of Subanen Chants

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Abstract

Indigenous Subanen culture and tradition have deteriorated slowly with the changing times. The Subanen community of Lapuyan, Zamboanga del Sur, Philippines is betwixt in between when it comes to embracing modern lifestyle, traditional practices and beliefs. This can be mirrored by songs and chants. Their indigenous songs and chants are intangible artifacts that need to be understood and preserved. As this study employed a qualitative research method, its contention was to scrutinize and explore the salient patterns in their indigenous chants, specifically the English-translated Subanen chants, through semiotic-based analysis by employing linguistic analysis in the context of denotation, connotation, and myth to understand the Subanen messages and how they were embodied in their time-tested culture. The researchers painstakingly gathered leisure chant excerpts from their epics, library records, and local interviews. The chants use linguistic signs and symbols that connote different qualities and glare pictures of the Subanen culture. Hence, the researchers used a map of signification as the basis for extracting meaning from the gathered chants. It was found that these chants signify the knit-kept history of the Subanen tribe and their beliefs, aspirations, and legal practices. Finally, the researchers produced a module that incorporates Subanen chants as a pedagogical tool to help its preservation and to contribute to the learners' meaning-making skills in school.

Keywords: *Chants and Songs, Cultural Preservation, Subanen chants, Semiotic analysis*

Introduction

It has been apparent that the indigenous tradition is quickly dying out with the passing of its keepers and losing interest to the younger generation. The goal of conserving the rich Filipino heritage becomes broader in scope. But even with the great collection of folk stories, speeches, and songs, it seems difficult to close the gaps between the past and the present. Therefore, the researcher ventured the incorporation of these indigenous memorabilia in linguistics and in the pedagogy as well. Indigenous songs embody not only the culture of a particular community, but also how its people utilize their language to communicate or convey their stories, emotions, and beliefs. Indigenous chants, like any other songs, is a form of text considered as a connected discourse. This would mean that the lyrics may signify beyond its explicit text.

Therefore, this research used the science of signs, Semiotics, to scrutinize these songs. Semiotics focuses on the form of words, colors, images, sounds, gestures, objects, and, as quoted from Barthes *Mythologies*, their “significations apart from their content”. In other words, Semiotics studies how meaning is constructed and understood through signs. Semiotic analysis of songs contributes to the essential goal of language learning which is for students to be motivated and equipped to function well within the target language (L2), while incorporating the culture beyond the classroom. This can then be used as a pedagogical tool for students to better comprehend and interpret the linguistic and sociocultural context of authentic texts (lyrics of the Subanen songs).

It is on this regard that the contention of this study is to scrutinize and explore the patterns of indigenous music, specifically English-translated Subanen songs, through semiotic analysis by employing the role of denotation, connotation, and myth to understand their messages and how they embody the Subanen culture. As an output, the researcher produced a module incorporating analysis of Subanen songs to be used as a pedagogical tool. This research may then contribute to the field of Applied Linguistics, Philippine folklore; and hopefully attract scholarly attention on the rare concepts of signs and linguistic myth. This study was conducted within the span of four months between the academic year of 2021-2022 and 2022-2023 of St. Michael’s College, Iligan City.

Objectives of the Study

The research is focused on exploring the denotation, connotation, and myth of eminent songs of the Subanen tribe, through a semiotic analysis. The signification of these chants were laid out as foundation for the development of a pedagogical tool for the intention of preserving these indigenous memorabilia and at the same time contribute to learners’ meaning-making skills.

Specifically, the main objective of this study sought to answer the following questions: (1) What are the most renowned songs of the Subanen tribe? (2) How are the denotation, connotation, and myth employed in the Subanen songs? (3) How do these linguistic signs and symbols reflect the culture of the Subanen tribe? (4) What pedagogical tool can be developed from these Subanen songs?

2.0 Methods

This analysis used a qualitative descriptive method to analyze texts, particularly English-translated lyrics of Subanen chants, and scrutinize its use of words and the meaning it entails. Particularly, a semiotic process was employed for the production, transmission, and interpretation of meaning represented symbolically in signs and messages, primarily but not exclusively in language (Mingers & Willcocks, 2016). This study goes beyond traditional qualitative research as it also utilizes interpretative content analysis, in which researchers go beyond quantifying the most straightforward denotative elements in a text (Koppa, 2010). Data

gathering took place in Lapuyan, Zamboanga del Sur, where the Subanen tribe has been thriving throughout the years. The municipality has 26 barrios with predominantly Subanen inhabitants due to its ethnic origin. Data was gathered through an immersion in Lapuyan where the Subanen chants were collected and the tribe's culture, history, and lifestyle were explored. Research also took place in the archives of Museo de Oro of Xavier University, Cagayan de Oro City to delve deeper into the Subanen tribe's identity as well as their epics.

The researcher utilized Roland Barthes' map of sign functioning as a semiotic tool. It is a key instrument to ensure that the intended meanings are unambiguously understood (Sign Salad, 2021). This instrument was used to graphically analyse the signs from the lyrics of Subanen songs according to its denotation, connotation, and myth.

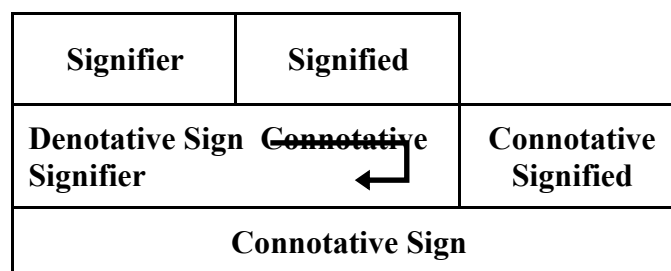


Figure 1. Map of Sign Functioning
(adopted from Barthes as cited by Margianti & Sari, 2020)

Figure 1 shows the research instrument that was used for semiotic analysis to identify the denotation, connotation, and myth of the Subanen songs through signs/signification of these songs. The denotative sign is produced by the signifier and signified. The denotative sign is then considered as the connotative signifier on the second level of the semiotic system and will produce the connotative signified, which will in turn produce the connotative sign. This semiotic process is systematic and will embody the language myth of these songs.

3.0 Results and Discussion

Results and findings of the study are presented chronologically based on the objectives of the study as presented therein.

The Most Renowned Songs of the Subanen Tribe

The five (5) Subanen songs that the researcher used for semiotic analysis are Dlonli, Phatedil, and excerpts from the epics Guinguman and Ag Tubig Nog Keboklagan. Hereafter, the aforementioned Subanen chants will be thoroughly discussed according to their origin and pertinence.

a. Dlonli

As this folk song is sung in sembangay, which means proverbs in the Subanen language, Dlonli is related to the Japanese poetry with 7 syllables called Tanka. The origin or the composer of this Dlonli is unidentified on account of it purely sustaining through the years as a leisure chant the Subanens sing while harvesting, which pans out to Subanen children learning it from their farmer parents. Thus, its etymology is generally from the Lumad Subanen of Lapuyan. This song is basically a leisure song that is sung during harvest and apparently, the term "dlonli" is nothing more than an expression, which entails that the term does not have a direct translation. Its lyrics starts off with a phrase exhibiting onomatopoeia and symbolism, followed by sentiments of appreciation to the Subanen parents.

Dlonli
Gbe'ti salumaya
Yami helon gem'bata
Tinuran nami siba
Su' nga gbetad te'gana
Gba' genda na sina' sya 'Ma
Gbalen nami pusaha,

(lonli
A snap from makahiya
We, all of us here children
We were all taught good things
Teachings from the ancestors
If Mom and Dad all be demised
It'll be a great legacy

Dlonli
Tubig sapa Dlepuyan
Su' helon tintuluan
Tago o' rin pihilan
Ba be'leng na nga Megulang
Sumukli o' gindegan
Dlonli

Lonli
Flowed like Lapuyan River
All of the great teachings
They're all hidden in my mind
If all parents may all die
We represent the next generation
Lonli)

b. Phatedil

This chant is similar with Dlonli in many ways. It is related to the Japanese Tanka and its etymology or composer is unknown. The term phatedil is also considered as an expression with which it does not have any equivalent translation. Basically, Phatedil originated from the Lumad Subanen of Lapuyan. This chant is performed during courtship. Marriage in the early Subanen can either follow the “buya” system, where the parents arrange and find partners for their children, or the normal type of marriage, where courting happens between two Subanen people with mutual romantic feelings for each other. The latter type of marriage requires wooing or engagement; thus the use of the Phatedil chant during courtship rituals.

DilDil
anana te' dil o' run
Manok, Manok gbe'haha
Pe'gapun ritu panga'
Dlelayun peketawa
Pe'ngumandyag de'laga
Anana te' dil o' run

(Dildil
There is a saying
A little kingfisher bird
Sitting on top of a branch
Seeing smiling all the time
Watching pretty young ladies
And there it goes all along

Dil Dil
Anana te' dil' o run
Munsala genalana
Delaga pe'ngingata'
Gbe' guta-o kin la'ma
Pedleguyud munsala
Sedlayen ritu gbag
Lyaganen menginsawa
Anana te' dil o' run

Dil dil
Another saying to say
A perfumed lil' handkerchief
And lady in riverbank
Approached by a young fine man
Handing her a handkerchief
Bringing onto her shoulder
Likes marrying her
And there it goes all along)

c. Guinguman

The epic Guinguman originated in Dumalinao, Zamboanga del Sur, but is also adopted in Lapuyan, Zamboanga del Sur as a historical epic reflecting the yore of the Subanen people. It has 11 episodes and 4,062 lines that narrate the conflict between good and evil, and particularly dwells on the concept of war and invasion in the Kingdom of Mount Dliyagn before

shifting to the Kingdom of Pagkatolongon. The epic Guinguman was usually performed after war where Subanen tribe men gather for celebration and festivities. This is also performed during Buklog, a communal thanksgiving ritual that the Subanen people still celebrate to this day. The following are excerpts of the Guinguman that will be used for semiotic analysis:

(Guman: 3003 - 3031)

“...in case you didn’t know
the kingdom Dliya’g’n
and kingdom Paktologon
woven in their creation is evil
by the creator of the earth.
It is said that if the land
Has no trouble
The kingdom shall have no fame
Without desolation
The kingdom shall not be known.
In the days passed
While I was a young man

Along I fought against the enemies
Of our kingdom.
In same way also
The lone man Manongaling
When he was young
Along he defended his
Kingdom Paktologon.
However, although we were only
two
Not once did we encounter
Defeat or surrender
Our bodies and lives.”

(Guman: 1471 - 1481)

“let go of your kampilan
for you will carry to thy kingdom
only my dead body
because if you force me
if against my desire

it is better to die
better to pass away
than become subject of story
subject of story and song
In all the kingdoms...”

d. Ag Tubig Nog Keboklagan

The epic Ag Tubig Nog Keboklagan originated in the Sindangan Bay of Zamboanga Peninsula. It is about the exploits of supernatural hero Taake, and the series of conflicts between the kingdom of Sirangan and other kingdoms. The wars mounted from the resentment of the chieftains from the kingdom of Keboklagan over his courtship with their Lady Pintawan and other kingdoms became involved in the fighting as the battles progressed. Taake leads the Sirangan leaders in their victory over the other chiefs, but there have been too many deaths which made Asog, the supreme being, upset. Asog descends to Earth, commands the combatants to put an end to their battle and hold a *buklog*, to which he promised every warrior a life partner. The saga ends with Asog fanning the kingdoms and resurrecting all those who died during the battles. The epic Ag Tubig Nog Keboklagan encompasses 7,590 verses, and is also performed during *buklog*. Below is an excerpt from Ag Tubig Nog Keboklagan, documented in “The Folklore of the Subanuns” by Gaudiosa Ochotorena.

“Then his dowry he gave,
This datu of Sirangan,
Seventy long gonsoq
Also the people
On the other side of Sirangan.
And Tomitib Manaon
Did the same.
Here the Muslims mixed,

By intermarriage–
With the Subanuns”

Denotation, Connotation, and Myth in the Subanen Chants

A. Dlonli

- Denotative Sign:
 - A makahiya plant breaks.
 - The Subanen children are taught by their parents with teachings from their ancestors.
 - The teachings will be the parents’ legacy when they die.
- Connotative Sign: This connotes breaking the practice of birth control because the Subanen children are taught well by their parents, with teachings that came from their ancestors. This reflects the family system. When the time comes where the parents die, these teachings will live on as their legacy. This connotes the oral traditions passed onto generations, and the preservation of the traditional knowledge.

The makahiya plant is used as an herbal remedy by the Subanen people for birth control. A research on Healing Beliefs and Practices among Subanen and Mansaka by Valdez and Canapi (2015) claims that the root decoction of the makahiya plant has an antifertility effect which validates the Subanen use of this herb for birth control. Therefore, the findings of this research supports its symbolism of birth control. Moreover, the line: “a snap of makahiya” denotes breaking of the makahiya plant, thus, connotes breaking the practice of birth control. However, the researcher finds this ironic because according to Daligang in 1981, the Subanen tribe was claimed to be the first tribe to practice birth control.

Additionally, the Subanen household is regarded as a hub for teaching children morals and parental respect. Their primary teachers are their parents. Reading and writing were not taught to the early Subanen. However, they are able to count by using their fingers. Only traditional agricultural and forest resources are used by the Subanens. Boys were taught to supply food, while girls received instruction and orientation in domestic skills. These were all discussed in the field work research of Dr. Joy Enriquez on culture and beliefs of the Subanen people from Tigbao, a neighboring municipality of Lapuyan. This is also applied in the early Subanen community of Lapuyan where aside from being taught how to secure food and handle household responsibility, they were also taught about the stories and folktales from their ancestors.

The song Dlonli then connotes the idea that even though their teachers, the Subanen parents, may pass away, their teachings will never falter and will continue to be passed onto the following generations. The knowledge and skills their children have acquired from them will serve as their legacy.

B. Phatedil

- Denotative Sign:
 - A kingfisher bird is looking at a pretty and young lady on a riverbank.
 - The man brought with him a perfumed handkerchief to court a lady who is in the riverbank.
- Connotative Sign: This song connotes courtship where a man is looking at young and pretty ladies in the riverbank, searching for someone to propose marriage to. He found a pretty lady in the riverbank and approached her with a handkerchief to lay it on her shoulder and ask her hand in marriage. This act reflects one of the Subanen courtship practices.

This song connotes a story of a man planning to court a pretty lady he saw in a riverbank. The kingfisher bird is called *gbehaha* in Subanen. The kingfisher is used as a symbol or metaphor for a man searching, or in avian terminology, “hunting”, for a lady to court.

The handkerchief or *gmunsala* is used for courtship in the Subanen culture. When a lady accepts a handkerchief from a suitor, this would mean she accepts being in a relationship with him. “It is a proof of a mutual understanding and a basis even of a marriage,” according to the researcher’s informant. Moreover, this song is indeed used for courtship as it also relates to the courtship dance called *sabay*, or *galay*, or the act of *pangalay* (Cultural Center of the Philippines). This courtship dance uses a handkerchief or a *gmunsala* where by the time the female dancer is caught by the male dancer’s *gmunsala* by either laying it on her shoulder or striking her chest with it, it will show that the female is metaphorically caught by the male. This act ends the courtship dance.

C. Guinguman Excerpt (3003 – 3031)

- Denotative Sign:
 - The creator made the kingdoms Dliya’g’n and Paktologon fight evil on purpose.
 - The wars and struggles of a kingdom makes it known and acknowledged.
 - Young Datu Pomban’wa and young Datu Manongaling defended their kingdoms.
 - They never surrendered even though it was just two of them against the conquistadors.
- Connotative Sign: This excerpt of the epic connotes how the tribulations happen to their kingdom because God destined them to fight evil. They take pride in these struggles as they are recognized from it. This signifies the identities of Subanen who struggled with conquistadors as well. The datu Pomban’wa and Manongaling are brave and steadfast in fighting the same enemy for their individual kingdoms, albeit overpowered, reflecting the brave Subanens.

The *guinguman* or *guman* is known as the epic that reflects the origins of the Subanen. This epic is basically about the struggle between the characters against the same evil enemies who want to conquer their kingdoms. In this epic, Pailalam de Bolak asked Datu Pomban’wa a question why tribulations occur, and these lines from the excerpt were his response. Both the kingdoms of Dliya’g’n and Pagkatolongon struggled with the same problem of oppression. This connotes the idea that the kingdoms’ struggles against evil is fate. But what kind of creator makes a kingdom suffer from oppression on purpose? “*Without desolation, the kingdom shall not be known.*” These lines explain why their “fated” to struggle against evil; these kingdoms are practically fated to be known. A peaceful kingdom does not get recognized as much as one that goes through wars and tribulations. Chaos makes a kingdom become known or acknowledged in history.

This reflects how the Subanens experienced invasion and oppression in the past, and how they take pride on how their ancestors prevailed. Ivie Carbon Esteban, a literary folklorist, refers *guinguman* as the “epic of Lapuyan”; but this epic is also preserved by other neighboring Subanen communities of the Zamboanga Peninsula such as Kumalarang and Dumalinao. This is because this epic is used among Subanen groups to narrate the origins of their people. They consider it as an “oral testimony of their ancestors’ struggle for life and survival in Thubig Dliyagen”. This was the same Dliya’g’n which was the oppressed kingdom in the said epic. Subanens struggled from the oppression of the early Muslims. This excerpt also denotes how Datu Pomban’wa of Dliya’g’n and Datu Manongaling of Paktologon both fought for their individual kingdoms from three evil and jealous queens who wanted the said kingdoms to become theirs. The two defenders of the two kingdoms fought for their land and never

surrendered even though they were outnumbered. Even though these characters have supernatural powers, their human attributes are not concealed because they also tire out, weaken, and suffer. This connotes bravery, heroism, and steadfastness of the characters. It clearly relates to the Subanen ancestors who, according to Mrs. Esterlinda Mendoza-Malagar who translated the *guinguman* to the English language, are “peace-loving people but once provoked, they fight to the death”.

D. Guinguman Excerpt (1471 – 1481)

- Denotative Sign:
 - The man should give up.
 - The maiden would rather kill herself than be part of their history that will be told in different lands
- Connotative Sign: This excerpt of the *guinguman* connotes the value of bravery and steadfastness because the character implied that the warrior should give up because he will never get to take her to his kingdom alive, and that she would rather die than be part of the success stories in their history, which will be talked about in all kingdoms. This connotes the bravery and steadfastness of Subanen women and the passing on of oral traditions.

This is another excerpt of *guinguman* and just one of the many tensions in this epic where they had to fight for their honor. The women of this epic are just as brave and devoted to fight for their kingdom especially if their honor is at stake. These female characters were also warriors and one of them is the maiden Pagl’lokon.

A *kampilan* is a single-edged sword used by skilled Subanen warriors in the past. The line denotes letting go of the sword, which in turn connotes giving up. In the context of this excerpt of *guinguman*, the maiden Pagl’lokon was asked by the opponent to go with him to his kingdom and this excerpt was her response. She implied how the man should give up trying to take her with him to his kingdom because he would only be bringing her dead body with him. Why so? In the following lines, it is denoted that she would rather die than be taken by this man to his kingdom. This was how steadfast the maiden was, just like every masculine hero of this epic. If the man forces her to go with him to his kingdom, she would rather kill herself than become a topic of their history. This shows an interconnection between the connotations from the previous *guinguman* excerpt about how tribulations make a kingdom become known. Obtaining her would be considered as a tribulation and if they successfully take her to their kingdom, the enemies will take pride in it and this will be known to all kingdoms, through their stories and oral traditions. This shows how the character is so firm on not being involved at all with their triumph, or making sure they do not triumph at all.

This once again speaks a lot about how the Subanen people are very steadfast and brave when it comes to their honor and sense of pride. “The women would rather die than be dishonored or be married against their will.” This was according to Esterlinda Mendoza-Malagar, who translated the epic *guinguman* for the world.

E. Excerpt of *Ag Tubig Nog Keboklagan*

- Denotative Sign:
 - Taake and other datus gave their dowries.
 - Muslims and Subanens went through intermarriage.
- Connotative Sign: This Subanen song connotes a happy ever after where the conflict between rivaling kingdoms are resolved with an intermarriage. The song signifies the origin of *kalibugans* that is existing in the Zamboanga Peninsula.

This excerpt is the denouement of the famous folk epic *Ag Tubig Nog Keboklagan* or Kingdom of Keboklagan. The preceding conflicts that happened in the song denoted many

conflicts and struggles between the rivaling kingdoms, particularly the Muslims from the kingdom of Keboklagan and the Subanens from the Kingdom of Sirangan. However, in this particular excerpt, communion took place as a resolution to the problem. This was done through intermarriage between the Subanens and the Muslims, where everyone was given partners to wed as a blessing from the supreme being.

The excerpt clearly connotes peace and communion, as well as the origin of *kalibugans*. The *kalibugans* are people who are descendants produced from the intermarriage between Subanens and Muslims. They are basically referred to as mixed-breeds, usually due to the said intermarriage or voluntary conversion.

The history between the two ethnic groups was not exactly pleasant; The Muslims were known to have subjugated Subanen people in the worst ways possible. The Subanen also became mountain dwellers to avoid the aggressive Moro people who lived in the coastal areas of Zamboanga del Sur. The conflict between Subanens and the Muslims in the past marked a significant part of the Subanens' history and culture. It either established a negative view of Subanens to the Muslims because of the harassment they experienced, or a positive one where communion between the rivaling groups took place. The epic *Ag Tubig Nog Keboklagan* clearly demonstrates the ramification of conflict due to prejudice, and signifies the experience of the early Subanen people of Zamboanga del Sur.

Reflection of Linguistic Signs and Symbols to the Subanen Tribe

These linguistic signs and symbols from the different folk songs of the Subanen tribe embody their culture, history, identity, and values as an indigenous community. This was clearly manifested in the songs that were gathered and analysed, both in the Subanen epics and the leisure songs or chants.

From the analysis attained, the researcher concluded that the early Subanen, just like other lumads, had their own belief system such as the belief of diwata or gods as creators; as reflected in the epic *Guinguman*. They used to hold rituals and communal gatherings in adherence to their gods (Prabhakar & Gangadhar, 2011) as pagans and as a tribe practicing animism as their religion. The most known Subanen celebration is called *Buklog*, which is still being practiced these days by different Subanen communities, even the modernized areas. This celebration was also mentioned as the “happy ending” of the epic *Ag Tubig Nog Keboklagan* where each person present was given a partner as part of the celebration. They hold *Buklog* for various functions such as for thanksgiving, or to pray for health and abundance of harvest.

The concept of religion in the Subanen community of Lapuyan marked a drastic effect throughout history. According to the etymology of the Lapuyan, the Moros began a huge and coerced conversion to Islam in the latter half of the 18th century and the early part of the 19th. The Subanens, however, resisted the Moros and maintained their pagan beliefs; quite similar to how the protagonists in the epics *Guinguman* and *Ag Tubig Nog Keboklagan* were signified. The Subanen fighters of Lapuyan were bolstered by cousins of Thimuay Ahaten and Thimuay Reho who were commanders from Danao (Lakewood). They established an upcamp at Mogusan close to the mouth of the Kumalarang River. The Subanens upheld animism as their religion and disapproved of Islam which was also expressed in the conflict signified between the Moros and the Subanens in the *Ag Tubig Nog Keboklagan* epic. The conflict ended with the intermarriage between the Subanen protagonist and the Muslim maiden. This embody a reconciliation between the two ethnic groups and the rise of *Kalibugans*; the descendants of intermarriage between Subanen and Muslim. This instance in folklore and literature also reflects the reality today, where more and more *kalibugans* now exist in Zamboanga del Norte.

The Subanens have managed their own affairs in accordance with Subanen norms and customs throughout and after their conflict. The American missionaries Reverend and Mrs. David Lund taught Christianity to the Subanen leader during the reign of Thimuay Imbing in the early 19th century. After their arrival in 1912, Reverend and Mrs. Samuel D. Lamasson carried on the work of Christian missionaries that led to the founding of the Lamasson Bible School, the first Bible school in the Peninsula which started off as a Tribal Bible School. At that point, Subanens converted to Christianity. Interestingly, this also led to a nickname that Lapuyan was given, which is “Little America”, because of the American missionaries that came in the community. In the present day, the said school is still well established in Lapuyan. This influenced the upsurge of the mentioned evangelical group, CAMACOP Alliance (Christian and Missionary Alliance Churches of the Philippines), which is the religion that majority of the Subanens embrace in Lapuyan these days.

The etymology of religion of the early Subanen people also gave us a gist of the tribulations that the tribe went through. The epics *Guinguman* and *Ag Tubig Nog Keboklagan* emphasize on the struggles of the characters from conquistadors and other forces of evil. This was a manifestation of the Subanen’s history with their own share of conquistadors in their history, including the aggressive Magindanao Datus and Maranaos from Lanao who dwelt along the Lapuyan coastline. According to the municipality’s historical profile, they were frequently harassed or attacked by the aforementioned groups. The Maguindanao datus used to extort tributes from them, while the Maranaos would capture Subanens and sold them as slaves. These were the reasons why the Subanens moved by the riverbanks upstream. This is why they are called Subanens; derived from the word “suba” because they dwell by the riverbanks.

The family system and practices are also reflected through the linguistic signs of these Subanen songs, particularly on courtship, wedding, and valuing the members of a household. The signs in the courtship song *Phatedil* explains the nonverbal cues of asking a woman’s hand in marriage. This is explained further in Mrs. Esterlinda-Mendoza Malagar’s paper on the “Suban-on Epic and its Significance to their Changing World: Suban-on Love, Courtship, and Marriage”. Courtship and love is interesting as there are nonverbal cues that supplement the interest of the Subanen man and woman to each other, such as the use of handkerchiefs which was implied in the linguistic signs of the song *Phatedil*. The early Subanen men practiced polygamy where they can marry as many girls as they can handle. If they get married out of parental agreement, the man has to prove himself worthy first. A dowry is involved, which is also signified in the epic *Ag Tubig Nog Keboklagan* in the line: “*Then his dowry he gave, This datu of Sirangan*”. A traditional Subanen marriage ceremony is a “long-winded affair” which is sometimes held for a number of days. The family system also reflects the staple Filipino adherence to the elders. Their home is considered as the center of learning values and respect for elders and parents. Parents were their immediate teachers, which was also signified in the song *Dlonli*. The way the teachings were passed on from generations to generations was also connoted in the said song, comparing it to the Lapuyan River or the *sapa Dlepuyan*; which was an integral part of the Subanen history and culture.

3.1 Rationale

The researcher crafted a set of learning modules as a pedagogical tool based on the incorporation of the analysis of indigenous Subanen songs. This may eventualize sustainable and efficient preservation of indigenous songs, and at the same time promulgate information about the Subanen ethnic group to the younger generations, whilst developing their meaning-making skills. The modules vary in target learners and subjects in accordance to the competencies appropriate to the incorporation of indigenous song analysis.

Conclusions

Based on the results above, it can be concluded that the Subanen indigenous chants gathered signify the beliefs, practices, courtship, family system, and history of the Subanen community of the Zamboanga peninsula. The songs used linguistic signs and symbols that connote the different qualities of the Subanen culture, and the researcher used the map of signification to extract meaning from the gathered songs. From this, it was found that Dlonli denotes the breaking of a makahiya plant and acquiring knowledge from Subanen parents; and it connotes the breaking of the practice of birth control to pass on traditional knowledge to the following generations. Phatedil on the other hand, denotes a kingfisher bird watching pretty maidens in the riverbank and the man bringing a perfumed handkerchief to the maiden; and it connotes the Subanen courtship practice. The excerpts from Guinguman denotes how the kingdoms Dliya'g'n and Paktologon were destined with evil, as well as the brave and steadfast characteristics of the Subanen people; and it connotes how the tribulations make a kingdom recognized; Lastly, the excerpt from Ag Tubig Nog Keboklagn denotes giving of dowries during an intermarriage between previously rivaling kingdoms, and it connotes communion as conflict resolution as well as the origin of kalibugans. The linguistic signs and symbols of the lyrics from the Subanen chants reflect the culture and etymology of the tribe. The researcher crafted a set of learning modules as a pedagogical tool that incorporates the analysis of Subanen indigenous chants to help develop learners' meaning-making skill, at the same time fortify the preservation of these indigenous memorabilia.

Recommendations

Based on the results of the study, following recommendations were drawn:

Subanen Tribe. The researcher recommends the tribal institutions to initiate production of various forms of print and electronic media of indigenous songs that can be used by educational institutions and for research purposes, as a way of preservation.

Language Teachers. The language teachers and the educational institutions that govern them should incorporate indigenous songs in their curriculum; such as for motivation in the lesson proper for elementary, and as literary texts and materials for high school.

Language Learners. The researcher recommends language learners to utilize Subanen indigenous songs and lore to develop their reading comprehension and making meaning out of linguistic signs and symbols.

Future Researchers. Future researchers are suggested to partner with educational institutions of the Subanen communities, and go through content analysis to assess the incorporation of the indigenous songs and folklore in their curriculum.

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Conflict of Interest

The author declares no conflict of interest.

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Designing teaching workshops for pre-service teachers of English in Japan

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ABSTRACT

This paper explicates a teacher training workshop which is part of a five-year research project that aims to understand and support the practical needs of pre-service English teachers who intend to teach at junior high schools and senior high schools in Japan. At the beginning of the project, pre-service teachers of English were asked to identify what topics they would like to be included in teacher-training workshops designed to address their needs. In 2022, two workshops were held based on these perceived needs. This paper focuses on the efficacy of the second workshop considering the participants' (n=16) feedback. The authors also map out the design of future workshops and argue for the necessity of practical support for pre-service English teachers considering the current teacher-training structure in Japan.

KEYWORDS: Japan, pre-service English teachers, teacher training, workshops

1 INTRODUCTION

This is the second in a series of papers which examines pre-service teacher-training workshops which have been designed for Japanese university students who want to be English teachers. The background and rationale for the research project are briefly discussed before the details of the second workshop are expounded, along with post-workshop feedback provided by the workshop participants. In the final section the authors discuss their plans for future workshops.

2 BACKGROUND

Many experts in the field of English education and teacher training have highlighted a number of inherent problems in Japan's teacher-training programmes (Fukushima, 2018; Kikuchi & Browne, 2009; Steele & Zhang, 2016; Tahira, 2012). In addition, the implementation of the new Course of Study Guidelines in Japan has increased the demands on teachers at elementary, junior, and senior high schools (Cripps, 2019; Okamura, 2017). Unfortunately, the support structure for English teachers in the public system is less than satisfactory. Every day, novice English teachers in Japan are facing challenges for which their pre-service training failed to prepare them (Cripps, 2021; Mouri, 2020; Tahira, 2012).

The catalyst for the workshop outlined in this paper arose from the Principal Investigator's (PI – Professor Cripps) frustration at seeing many of his seminar students struggle when entering the English teaching profession. Initially, through funding from the Japan Society for the Promotion of Science (JSPS – Kaken B No. 15H03481), from 2015 to 2018 Professor Cripps and his research team provided support for in-service teachers through a series of workshops that equipped the participants with practical pedagogical skills, and the provision of online teaching material (see Cripps & Doi, 2020; Cripps et al., 2017, 2018). The success of this research project motivated the current research team to apply for additional funding to support pre-service English teachers.

In 2021, Professor Cripps' research team was awarded further JSPS funding (Kaken B No. 21H00551). This five-year research project aims to support pre-service teachers of English through the provision of practical workshops which address their pedagogical needs, the creation of an online website which will house teaching material, and the publication of practical teaching handbooks. For a more detailed explanation of the rationale for this project and its design see Cripps et al. (2023).

3 PLANNING THE WORKSHOP

This paper focuses on the second pre-service English teaching workshop which took place at Nanzan University in Nagoya, Japan on November 19, 2022 (the first workshop was held on June 27, 2022, see Cripps et al., 2023 for more information). Professor Cripps contacted Professor Uchida from Akita International University and Professor Toland from The International University of Kagoshima and asked them to give sessions for the second workshop. Professor Matsumoto from Bond University in Australia was also invited to spearhead a session. Professor Cripps from Nanzan University facilitated the final session of the workshop. Below is the brief biodata of the professors who contributed to the interactive workshop.

3.1 Biodata

Professor Hiroki Uchida started his teaching career at a Japanese high school in 1989. He taught students of various proficiency levels for nine years, and he stepped into his new field of teacher training. He is currently teaching at Akita International University and is Dean and Director of the Graduate School, Head of the English Teaching Practices Program, Graduate School of Global Communication and Language.

Sean H. Toland is a Professor of English at The International University of Kagoshima (Department of Intercultural Studies). He has taught English as an international language (EIL)

in Japan and Korea at every level from elementary school to university and worked as a high school teacher in Canada's far north. Sean enjoys developing instructional materials and a number of his original lesson ideas have appeared in the TESOL *'New Ways'* book series and *English Teaching Professional* magazine. His research interests include technology-enhanced learning, materials development, critical thinking and teacher training.

Dr. Masanori Matsumoto has been teaching in Japan and Australia for over thirty years. He completed his Doctoral Degree at the University of South Australia and is currently an Assistant Professor of Applied Linguistics at Bond University, lecturing for a post-graduate teacher training program of Teaching English for Speakers of Other Languages (TESOL). His research interests include second language (L2) learner motivation, individual learner differences, and L2 program and material design. He has presented papers at a number of domestic and international conferences, and published books and articles in globally renowned journals.

Dr. Tony Cripps has been teaching in Japan for over thirty years. He is a Professor of English at Nanzan University (Graduate Program of Linguistic Science and the Department of British and American Studies). His research interests include teacher training, learner autonomy, material design, MOOCs, pedagogical innovation, and English for Medical Purposes (EMP). For the last two decades he has run numerous teacher-training workshops in Japan and overseas. He is currently working on a major research project (Kaken B – No. 21H00551) funded by the Japan Society for the Promotion of Science which aims to provide pedagogical support for pre-service English teachers in Japan.

4 THE SECOND PRE-SERVICE TEACHING WORKSHOP

As noted above, the first pre-service teaching workshop was held in the afternoon on June 27, 2022. For the second workshop, which was held on November 19, 2022, it was decided to run a longer workshop from the morning to the afternoon. The workshop began at 10:25 a.m. and ended at 3:00 p.m. (see Appendix A for a detailed schedule). Professor Uchida and Professor Matsumoto gave one-hour sessions, while Professor Toland and Professor Cripps gave 30-minute sessions.

The theme for the second workshop *'Improving students' English-speaking skills'* was decided after analyzing participants' (n=12) suggestions from the first workshop (see Cripps et al., 2023). Sixteen pre-service English teachers attended the second workshop which is outlined in this paper. Most of the participants were members of Professor Cripps' teaching seminar (n=13) at Nanzan University, and three MA students (two from Nanzan University and one from Aichi University of Education) also took part. At the end of the second workshop the participants were asked to complete an anonymous written feedback sheet (see Appendix B). In total, six professors participated in the workshop, including the session leaders and two more observers who interacted with the pre-service teacher participants. One of the professors was from Nanzan University; whereas the other teaches at Nagoya University of Education. Below an analysis of the written the feedback for each of the sessions is provided. The feedback was analyzed for emerging themes (Charmaz, 2014, Saldaña, 2013). These initial themes were further developed into primary and secondary themes, which allowed the researchers to gain a better understanding of the participants' needs. Pseudonyms have been used throughout the paper to protect the participants' privacy.

4.1 Professor Uchida's session

Professor Uchida gave the first session of the workshop. His session was entitled: *'Ask plus answer plus: A way to help false beginners speak/write.'* This session challenged the participants to reconsider their teaching approach.



Figure 1: Professor Uchida's session

4.1.1 Make classes interesting and focus on meaning

Professor Uchida emphasized the importance of making classes interesting and he encouraged the participants to get their students to focus on meaning rather than robotically trying to translate every word they hear/read. Ai commented: *"I learned it is important to make the class feel interesting. Teachers don't have to give their topics at the beginning of class."* Both Chiharu and Noah were happy to rethink how they can get students interested in English classes. Chiharu explained: *"He told us how to help students to write English. I want to tell students not to 'translate' correctly, but to catch the meaning and put them into their original English."* Noah described what he discovered from Professor Uchida's session: *"What I newly learned from his talk is it will be easy for learners to speak/write English when they focus on the meaning rather than translating word by word. I was happy to know what is important for getting students attracted in class."*

4.1.2 5W1H

One specific example that Professor Uchida used to illustrate how to get students create meaningful communication in English was using the '5W1H' pattern. Ai noted that: *"5W1H is important to think about when students communicate with people in English. This can make students to write English more smoothly and they can write sentences with deep content."* Hanae commented on how the 5W1H activity could be used to raise students' motivation: *"I learned how teachers can motivate students to be interested in English. I would like to use 5W1H activity in order to improve students' speaking abilities."* Takako's remarks mirror those of Hanae: *"I think the technique of using 5W1H will be very useful when I teach in class from next year."*

4.1.3 Providing a sense of achievement

Another main point that the participants took from Professor Uchida’s session was the importance of creating a sense of achievement as this would have a lasting effect on their students. Jun expressed his agreement with Professor Uchida’s thinking: *“I strongly agree with your opinion that teachers should provide students with a sense of achievement in their classes.”* In the same vein, Kyoko revealed that: *“The idea I learned the most was the “sense of achievement”. I thought it was difficult to have students enjoy English learning and I did not have any idea how to do that.”*

4.1.4 Useful

The written feedback from the participants was extremely positive. Table 1 below shows four representative examples of comments reflecting the efficacy of Professor Uchida’s session.

Table 1: Representative comments on the usefulness of Professor Uchida’s session

No.	Name	Comments
1	Jun	<i>“All of your examples are based on factual situations in Japan so it will definitely be useful for my future!”</i>
2	Masato	<i>“I learned how deep it is to teach. I felt I need to study and try the things I learned in the real world.”</i>
3	Hanae	<i>“Thank you so much for your informative keys to teaching English.”</i>
4	Takako	<i>“It was my first time to hear about ‘Ask answer plus’ and it made me realise the importance of teaching how to make presentations or how to write essays.”</i>

Kyoko’s comment below is demonstrative of how useful Professor Uchida’s session was to the participants:

Today’s lecture by Professor Uchida gave me some ideas and hints which will be useful and helpful after I become a teacher. It is a difficult question “Why should students have to study English?” and I have been seeking one of the answers. Using the tips by Professor Uchida, I would like to provide interesting classes to the students.

4.2 Professor Toland’s session

Professor Toland gave the second session of the workshop. His session was entitled: *‘Strategies to support Japanese English language learners’ 21st century skills’*. Four themes relating to Professor Toland’s session arose from the written feedback: (1) useful teaching material and activities; (2) the importance of presentations; (3) the issue of information and communications technology (ICT) use; and (4) using English to make students think about social issues or to work on creative projects.



Figure 2: Professor Toland's session

4.2.1 Useful teaching material and activities

The participants found Professor Toland's examples of his teaching material and activities extremely useful. Haruki's comments illustrate this fact: *"The different teaching materials and different ways to get students interested and motivated was very useful. It was fun actually doing them in class, and they were good references for teaching practice."* Similarly, Rio mentioned how using different kinds of teaching material can be useful for teachers' careers: *"I felt that the visual materials are good to capture students' attention and make classes more interesting. I want to use those materials in my classes in the future."*

Mao was also appreciative of the activities and materials that were shared in the session: *"You gave us several examples of activities. All of them are so useful. I'll be a junior high school teacher next year, so I would like to use those activities in my class."* Saori, having used the teaching material as a student when she took the Academic English course in her first year in the Department of British and American Studies at Nanzan University, decided that she would revisit the material after the workshop – this time from a teacher's perspective: *"I have seen and tried some of the activities in Academic English. When I go back home, I will watch the videos you showed in the session."*

4.2.2 The importance of presentations

In his session, Professor Toland demonstrated how different types of presentations can be used effectively to help enhance students' speaking skills. Hanae, commenting on the shyness of Japanese students, points out that poster presentations can be very useful for such students: *"I found that poster presentations can be effective for Japanese students because they tend to get shy when speaking English."* Jun also stressed his support for the use of poster presentations:

I agree with your way that students need to practice in small groups because they're shy! I especially love poster presentations from my experience in Academic English because we can focus on learning how to speak, not making presentation slides or memorizing things.

4.2.3 The issue of ICT use

Professor Toland is a strong advocate of ICT use in and out of the classroom. In her post-workshop feedback sheet, Kyoko raised the issue of the slow move towards of the acceptance of ICT use in Japan: *“It was interesting that SNS can be materials for the classes. As Professor Toland said in his lecture, many students in Japan are not allowed to use their smartphones in school. However, students in junior/senior high school have been provided tablets. That will make students using SNS or SNS-like materials in the classes.”* Similarly, Iori highlighted the importance of learning how to use ICT: *“Electronic equipment is increasing more and more in school. In order to be flexible teachers, it is necessary to deal with that.”*

Both Takako and Masato mentioned the viral marketing videos that Professor Toland showed in his session (see sample handout in Appendix C). Takako noted that getting students to create their own marketing videos can be a very effective way to foster communication in class: *“I thought creating your own marketing videos is an interesting way to have students communicate and collaborate with each other.”* Masato believes that using such marketing videos could be useful when teaching students at junior and senior high schools in Japan: *“Using viral marketing videos is a new idea to me. The videos we saw in the session were interesting and all of us were watching (staring) at. This would happen in senior or junior high school and I’d like to use them in my class.”*

Despite the fact that many of the participants seem to be eager to weave ICT use into their teaching, there were also some circumspect comments. Takako cautioned that: *“Sometimes it is difficult to implement these kinds of activities since classes are short, but as Professor Toland said, I think it’s important to adapt these ideas by myself depending on the level of the students.”*

Although Kyoko was honest about the inevitability of ICT becoming part of the fabric of the classroom in Japan she does provide some words of warning when talking about using SNS material: *“To be honest, I am worried if I could use these materials because I have heard that teachers are sometimes monitored by other teachers or some people in an institution. It might not be easy to use these materials in the classes as Professor Toland introduced under the present situation in Japanese schools.”*

4.2.4 Using English to make students think about social issues or to work on creative projects

From a broader educational perspective one of the roles of a teacher is to get students to broaden their intellectual horizons and to think about the world. Ai’s comments in her written feedback focused on the wider impact of how interesting activities, materials, and presentations can be used to raise students’ awareness about certain issues: *“There are some interesting ways to make students think about social issues or make creative things by using English. Some of the students are not interested in English, so teachers have to prepare the things which are fascinating to the students.”*

4.3 Professor Matsumoto’s session

Professor Matsumoto was the third featured speaker of the workshop. His session was entitled: *‘How to reverse the trend: Japanese could speak English better’*. Professor Matsumoto asked the participants to think about the issue of teaching pronunciation, the goal of trying to speak English like a native English speaker, and learner differences.



Figure 3: Professor Matsumoto's session

4.3.1 The importance of pronunciation

Professor Matsumoto's session compelled some of the students to reevaluate their views on the teaching of pronunciation. Takako explained her thinking: *"I always thought that pronunciation is an important factor for English, but after the lesson my mind changed. Instead of teaching the correct pronunciations, I feel that teaching students where to put their stress when pronouncing English vocabulary is important."* Similarly, Hanae used Professor Matsumoto's session to reconsider her approach to teaching pronunciation: *"I learned that students' goals don't have to be to 'speak like a native speaker.' However, it is important for students to know about the differences between Japanese pitch and English accent."*

4.3.2 Students do not have to speak English like a native speaker

Many of the participants wrote about the issue of 'speaking like a native speaker of English'. Ai wrote that she was relieved that: *"We don't have to be the perfect English speakers"* and this sentiment was echoed by Haruki: *"It was great to hear that there's no need to be a perfect speaker."* Both Mao and Aoi wrote that they would reassess their own language learning goals after attending Professor Matsumoto's session. Aoi commented that: *"I thought I want to be like a 'native speaker' but I realized that I can't."* While Mao reflected that: *"I used to set the goal, which is to speak English fluently like native people. However, I learned the goal is not always to speak fluently."*

Kyoko decided that once she starts teaching, she would put her students at ease regarding their language learning goals and encourage them to try and develop fluency:

Some students feel anxiety that they can't speak as native speakers, so if I become a teacher, I would like to tell them that they do not have to speak like native speakers. Instead I would like to have the students engaged in speaking focusing on fluency more.

4.3.3 L1 & L2

The session given by Professor Matsumoto helped the participants reflect on language acquisition. This topic is covered in one of the core classes for the teacher license program at

Nanzan University and the content of Professor Matsumoto's session afforded the participants the chance to both reflect on what they had learnt in their core classes, and to challenge their beliefs. Haruki revealed that: *"Learning about the differences between L1 & L2 acquisition was very eye opening."* Mao noted that: *"I found that the 1st language acquisition and the 2nd language acquisition are completely different from various points of view."* Noah went into more detail in his comments: *"I learned learning L1 and learning L2 are different in terms of how people acquire those languages, grammatical nature of the languages and the environment the learner studying a language is involved."*

Professor Matsumoto's session also helped the participants understand the importance of learning about L1 and L2 acquisition. Jun reflected that: *"I learned that it is important for English teachers to understand how different L1 acquisition and L2 acquisition are."* Likewise, Iori wrote: *"I learned the difficulties of acquiring the second language. I'm going to study and teach English considering what you told me."*

4.3.4 Reflective comments

Professor Matsumoto's session appears to have had a profound impact on some of the pre-service students. Masato noted that after Professor Matsumoto's session: *"I felt I needed to have deeper knowledge of Japanese in order to teach English."* Takanori, having spent much of his early childhood in America, realized that he needs to always consider that his students have a different linguistic background: *"Since I was able to achieve second language acquisition at a young age, I do need to keep in mind that students cannot fully acquire English."*

4.4 Professor Cripps' session

Professor Cripps facilitated the final part of the one-day workshop. The title of his session was: *'Tips for getting your students to speak English'*. The purpose of this session was to bring together many of the issues raised in the previous sessions and to get the participants to think about the reality of getting Japanese students to speak English in class. Like Professor Toland's session, Professor Cripps' session was shorter and had a more practical focus. The themes which arose from the written feedback from the pre-service English teachers were: (1) the importance of speaking activities; (2) the importance of group work; and (3) the importance of creating a fun classroom atmosphere. Many of the participants also offered reflective comments on the efficacy of the session.

4.4.1 Effective speaking activities

As noted above, Professor Cripps' session had a practical focus. Part of his session examined the elements of effective speaking activities and he encouraged all the participants (including the professors) to work together in groups to discuss this important issue. Rio explained that: *"I was interested to hear the points of good speaking activities and how teachers control class. I will use the skills I learned today and try and make a good class."* Similarly, Kaori appreciated the practical nature of this session: *"I was able to learn the characteristics of a successful activity. I would like to implement these traits to create successful activities and help students enjoy English."*

4.4.2 Group work

The session helped the participants think about the importance of group work. Mao commented on the effectiveness of sharing opinions in this session and how the group work exercise implemented by Professor Cripps encouraged this: *“By sharing the opinions with other group members, I could find tips for getting my students to speak English.”* Ai agreed that group work can help improve students’ spoken English skills. Thus, teachers should consider weaving group work into their classes: *“... teachers have to make time to have language (group work) activity in class, because it will be easier to make students to share their thoughts.”* Takako was also in agreement regarding the importance of group work: *“I agree that whenever we want to improve students’ speaking skills, we should always have students get together and work in a group. It was a really fun session, thank you!”*

4.4.3 Group work and creating a fun atmosphere

Professor Cripps designed his session so that the participants would have to work together in groups just as their students would. Experiencing group work and activities helps the participants to understand the dynamics of group work and its potential. Many of the participants in their formal written feedback, and their informal feedback after the workshop, expressed their enjoyment with the session and stated that creating ‘fun’ moments and an ‘enjoyable atmosphere’ should be of paramount importance. In her written feedback, Saori highlighted this: *“It is important to give students some enjoyable and fun moments in the class. When I become a teacher in the future, I want to try them.”* Hanae echoed Saori’s comments: *“I learned that group work is effective for improving students’ speaking activities. I thought that it’s important for teachers to make a good atmosphere for students. Thank you so much.”*

In his session, Professor Cripps encouraged the participants to work in groups and discuss the characteristics of a successful speaking activity. He also asked them to consider problems with speaking activities and how these problems can be overcome (see Appendix D). Haruki appreciated this active and collaborative approach: *“Working in groups was a lot of fun. Brainstorming as a group before seeing your answers was great for getting new ideas.”*

Kyoko provided a succinct summary of the issues to consider when designing and implementing speaking activities. She also highlights how a good atmosphere can have a positive effect:

For students whose mother tongue is Japanese, it might be difficult and a little stressful to speak English because many of them may think speaking like native speakers is important, speaking with perfectly correct grammar is needed. That can lead to being reluctant to or feeling not confident to join activities in speaking English. Therefore, I thought it would be very important to make a good atmosphere where making mistakes is welcome and the students speak actively without caring about mistakes.



Figure 4: Professor Cripps' session

4.4.4 Reflection

One of the keys to becoming a good teacher is the ability to reflect on experiences in and out of the classroom. The workshop participants used the feedback sheet to reflect on Professor Cripps' session as a whole. Table 2 below provides seven illustrative comments.

Table 2: Reflections on Professor Cripps' session

No.	Name	Written feedback
1	Takako	<i>"It was a really good opportunity to think about "What good speaking activities are!!"</i>
2	Noah	<i>"I knew some tips for teachers when they create speaking activities in English class. By thinking about the subjects for the activity beforehand, we can reflect on our ideas and compare different ideas effectively."</i>
3	Jun	<i>"I could review some things I've learned in my seminar class and I also found many things except that!"</i>
4	Iori	<i>"It was a good opportunity to get other's opinions. I could learn the way of thinking about many topics."</i>
5	Yoko	<i>"I want to try doing group work a lot in English classes when I become a teacher, so this session was very interesting for me."</i>
6	Aoi	<i>"It's important to consider whether the activity has a problem or not. Moreover, teachers have to think how to solve them."</i>
7	Chiharu	<i>"Your session was so quick, but very easy to understand. The main points were extremely clear! I'd like to conduct group work in my lessons. When I do English class, I'll try to consider about the checklists you gave us today!"</i>

5 SUMMARY

The workshop detailed in this paper was very successful. The formal written feedback provided by the participants was extremely positive, and the informal oral feedback given after the workshop also reflected this. The purpose of each of the workshops in this five-year research project is to tailor the content to the needs of pre-service teachers and the workshop outlined in this paper seems to have met these needs. Each workshop session focused on a different aspect of improving students' speaking skills and the variety of topics covered in each of the sessions was greatly appreciated.



Figure 5: Participants at the end of the workshop

5.1 Topics for future workshops

As with the first workshop which took place in June 2022, the written feedback sheet administered at the end of the second workshop asked the participants to suggest possible topics for future workshops. The participants' suggested topics are shown in Table 3.

Table 3: Suggested topics for future workshops

No.	Suggested topics	No.	Suggested topics
1	Teaching grammar	7	How to conduct group work
2	Teaching using ICT	8	How to teach listening
3	How to keep students motivated	9	How to teach reading
4	How to prepare interesting classes	10	How to make students speak English
5	How to correct errors	11	Teacher motivation and beliefs
6	How to create interesting activities	12	Content and language integrated learning (CLIL)

Teaching grammar was the most popular suggestion with four of the participants recommending this topic, with Mao advocating '*How to teach grammar in an interesting way*' as a possible topic. Unsurprisingly, considering Professor Toland's focus on ICT in the first workshop and the content of his session in the second workshop, '*Teaching using ICT*' was a popular suggestion. The issue of students' motivation and teacher motivation (suggestions 3 and 11 in Table 3) echo the concerns of in-service teachers given in previous research (see Cripps, 2021). Masato wanted to know "... *how and when to correct mistakes when students are working on an activity.*" Chiharu did not offer a specific workshop topic but made a

suggestion regarding the delivery of the sessions: *“I want more activities to think/cooperate with classmates!”* This comment reflects the thoughts of the PI in that future workshops should utilize more inclusive activities rather than a conventional lecture style.

6 FUTURE CONSIDERATIONS

The feedback generated by this workshop provided a lot of rich data and produced suggestions for future workshop topics as show in Table 3 above. Apart from future topics, the research team of Professor Cripps, Professor Imai, and Professor Toland are considering ways to enhance the workshop delivery. Some of the ideas currently being considered are: (1) inviting in-service teachers to give sessions; (2) providing online workshops; (3) opening the workshops to both pre-service and in-service teachers; (4) inviting more Japanese teachers of English to give sessions; (5) inviting more women to give workshop sessions; (6) holding ‘debriefing’ workshops soon after the pre-service English teachers have completed their teacher training at junior and senior high schools; and (7) including micro-teaching sessions in the workshops.

7 CONCLUSION

Teaching workshops such as the one explicated in this paper offer one way to provide meaningful support to pre-service teachers of English. The importance of obtaining and analyzing post-workshop feedback cannot be overemphasized. The feedback, and other data (e.g., researchers’ observations) generated by each workshop, is invaluable when trying to ascertain the needs of pre-service English teachers and how to address those needs. The research team will continue to work towards creating a meaningful support structure for pre-service English teachers fashioned from, and driven by, the feedback provided. We hope that the papers written to accompany this series of workshops will contribute to the canon of teacher training and that fellow educators will find this paper useful when considering making changes to their own educational contexts.

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Appendix A

Teaching Workshop No. 2 Schedule

2022 – Teaching Workshop No. 2

Date: Saturday, November 19, 2022
Time: 10:25 to 15:00
Place: Nanzan University, FB2
Theme: Improving students' English-speaking skills.

Schedule

10:25 – 10:30 Welcoming address

10:30 – 11:30 **Professor Uchida**

Ask Plus Answer Plus: a way to help false beginners speak/write.

Ask Plus Answer Plus: 一言添えて広がる英会話・英作文

11:30 – 11:45 **Break**

11:45 – 12:15 **Professor Toland**

Strategies to support Japanese English language learners' 21st century skills

12:15 – 13:05 **Lunch**

13:05 – 14:05 **Professor Matsumoto**

How to reverse the trend: Japanese could speak English better

14:05 – 14:15 **Break**

14:15 – 14:45 **Professor Cripps**

Tips for getting your students to speak English

14:45 – 15:00 Closing remarks and feedback

This workshop has been funded by the Japan Society for the Promotion of Science (JSPS) (Kaken B – No. 21H00551) it is part of a major research project which aims to provide pedagogical support for pre-service English teachers in Japan.

Appendix B

Feedback Sheet

Feedback Sheet – Pre-service Teaching Workshop No. 2

Thank you for agreeing to complete this short survey. It should take about 10 minutes to complete. Your answers will be used to help understand pre-service English teachers' needs, to aid research, and to help design future workshops.

Your answers will be treated with strict confidentiality and at no time will your identity be revealed. The questionnaire is anonymous. Once again, thank you for your help.

Tony Cripps

1. Please provide some feedback about Professor Uchida's session:

2. Please provide some feedback about Professor Toland's session:

3. Please provide some feedback about Professor Matsumoto's session:

4. Please provide some feedback about my session:

5. What topics would you like to see included in future workshops? Please give some examples.

6. For students who **HAVE** completed their teaching practice - Please write about your experience of teaching at your junior high or senior high school.

If you have any questions/comments please e-mail me or write them here:

Once again, thank you for your time!

Appendix C

Sample handout from Professor Toland's session

Viral Marketing Video (VMV) - Presentation Project

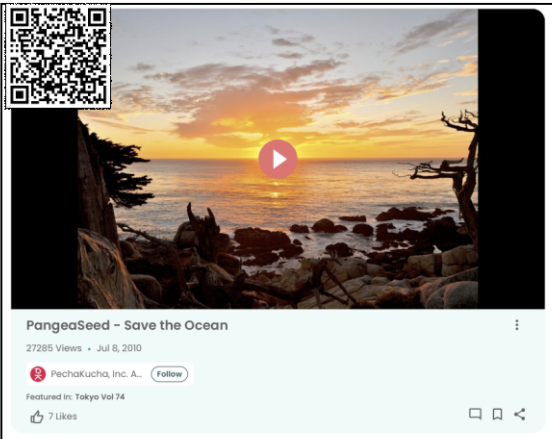
Task #1: Discussion Leader: Viral Marketing Video. Select a viral marketing video that you find interesting. Use the chart below to help you analyze the video. You will also create a handout for your classmates and instructor. Your handout must have the following: (a) screenshot, (b) QR code, and (c) analysis chart.

Example Handout:

(Insert screenshot here)

(QR code)

Item	VMV Title: _____
A. Product or service being marketed	
B. Target market (Who will buy the product?)	
C. Major character roles & minor character roles	
D. What happened?	
E. Most surprising / interesting part of the video	
F. Setting(s) (Where does it take place?)	
G. Music?	
H. Social issue(s) / Main message of the video	
I. Was the video successful? Why or why not?	
J. Number of 'hits' (viewers) on YouTube	
K. Estimated cost to make the video	



PangeaSeed - Save the Ocean
27285 Views • Jul 8, 2010
Peachakucha, Inc. A...
Featured in: Tokyo Vol 74
7 Likes





Thank you!



Creative & Adaptable

5

Appendix D

Handout from Professor Cripps' session

Tips for getting your students to speak English

A. Characteristics of a successful speaking activity

Tony's ideas		Your ideas	
1		5	
2		6	
3		7	
4		8	

B. Problems with speaking activities

Tony's ideas		Your ideas	
1		5	
2		6	
3		7	
4		8	

C. What can we do to help solve some of the problems?

Tony's ideas		Your ideas	
1		6	
2		7	
3		8	
4		9	
5		10	

Developing an English for Medical Purposes Massive Open Online Course for Japanese Medical Students

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ABSTRACT

Massive Open Online Courses (MOOCs) have the potential to enhance students' content knowledge and language skills. This paper looks at the design of an innovative research project that aims to support Japanese medical students through the construction of an English for Medical Purposes (EMP) MOOC.

KEYWORDS: English for Medical Purposes, Japan, Massive Open Online Courses

1 INTRODUCTION

This paper provides an outline of a pioneering research project which seeks to determine the English for Medical Purposes (EMP) needs of Japanese medical students, and construct an EMP Massive Open Online Course (MOOC) to strengthen the development of their EMP skills. Initially, the paper presents a brief overview of MOOCs, the importance of EMP in Japan, and the researchers' backgrounds, before laying out the objectives of the research project and its methods.

2 BACKGROUND

The issue of how to support the development of Japanese medical students' English skills has gained much attention. Increasingly, Japanese medical students are expected to gain a high level of English proficiency to prepare them for when they enter the medical field with the implied assumption being that "it will feature in their future profession through interactions with non-Japanese patients and/or engagement with medical research" (Mathis et al., 2022, p. 1). When used effectively, technology can be a useful tool for both teachers and learners

(Cripps, 2019; Cripps & O’Connell, 2016). The increasing demands on students and university lecturers by the Covid-19 pandemic has demonstrated the need to rethink the use of technology to support medical students.

2.1 MOOCs and EMP

A Massive Online Open Course (MOOC) is an online course that aims to provide unlimited participation and access through the Internet. Although still relatively unknown in Japan, MOOCs have become one of the most significant developments in education in the past decade (Association of American Medical Colleges, 2023; Group on Information Resources, 2014). Creating a MOOC which focuses on English for Medical Purposes has the potential to radically change EMP support for both medical students and in-service medical practitioners in Japan.

Although almost half of the universities in Japan provide some form of ‘Evidence-Based Medicine’ (EBM) education, Hirata et al., 2020 advocate that a “more effective means of teaching needs to be developed so that students will increase their confidence” (p. 14). The teaching of medical English should be adapted to meet the specific academic and professional needs of our students (Pavel, 2014, 2020). Oshimi, Jegu, and Thomas (2016) argue that there is “a growing need for Japanese medical undergraduates to develop their clinical communicative competencies in English” (p. 7). The importance of promoting the learning of evidence-based medicine in Japan is indisputable (Kataoka et al., 2023). Many medical students and in-service doctors in Japan feel inadequately prepared to communicate in English (Cripps & Yamamoto, 2023). A dedicated EMP MOOC is an effective way address this problem. To our knowledge, no MOOCs in Japan have been designed to address the specific EMP needs of medical students and newly qualified doctors.

2.2 The research team

The research team members have a great deal of experience in the fields of education and medicine. They have published academic papers on a wide range of topics and have presented their research findings at numerous domestic and international conferences. The researchers are currently developing EMP material to support medical students’ vocabulary acquisition (Cripps & Yamamoto, 2023). The collaborative knowledge of the researchers is ideally suited to conduct this research project.

The Principal Investigator (PI), Dr. Cripps, has been teaching and researching in Japan since 1990 and has taught at all levels of the Japanese education system, including teaching EMP courses at Japanese universities. He has written Japanese Ministry of Education, Sports, Science and Technology (MEXT) approved textbooks for high school students (*Mainstream* and *Newstream*) as well as authoring textbooks on English for Academic Purposes (EAP), English for Specific Purposes (ESP), and the Test of English for International Communication (TOEIC). He has been the PI on Japan Society for the Promotion of Science (JSPS) Kaken research projects which focused on creating online resources (20520538 & 23520722), establishing a framework for MOOCs (15K12922), and providing pedagogical support for English teachers in Japan (15H03481).

The Co-Investigator (Co-I), Dr. Yamamoto, has been practicing medicine and working as a researcher for over 25 years. In her position at Nagoya University, she teaches

medical classes in English to undergraduate and post-graduate medical students. Dr. Yamamoto is closely involved in both the ‘Young Leaders Program’ and the ‘Women Leaders Program to Promote Well-being in Asia’ at Nagoya University. Her clinical research focuses on maternal and child health care. She is currently a Co-I on a JSPS Kaken research project which is investigating rare tumors in pregnant women (15H02660). Dr. Yamamoto’s expertise on contemporary medical practice is a considerable asset to this research project.

The majority of Dr. Cripps’ research has centered on providing support for students and teachers in Japan. A previous JSPS Kaken research project (15K12922) established a framework for MOOCs at Japanese universities. Dr. Yamamoto has had a distinguished career practicing medicine and working as a researcher. At Nagoya University she has been actively working towards the improvement of undergraduate and post-graduate medical students’ EMP ability.

The PI and Co-I have worked on numerous projects together since 2010. Specifically, they have been working to improve the English proficiency of Japanese medical students. Through their work on developing students’ vocabulary acquisition, academic writing, and presentation skills, it has become clear to the researchers that medical students in Japan need more EMP support. Their research has demonstrated that there is a strong argument for establishing online self-study courses for medical students and novice medical practitioners (Cripps & Yamamoto, 2023).

3 OBJECTIVES AND METHODS

The initial stage of this project entails conducting in-depth research into the current state of EMP courses offered at universities in Japan and, after performing a detailed needs analysis, the research team will create a dedicated EMP MOOC designed to support medical students and practicing doctors. Research on Japanese medical students has demonstrated that technology can help students improve their receptive and productive knowledge. This research project aims to: (1) investigate the English for Medical Purposes (EMP) needs of Japanese medical students; and (2) create an EMP Massive Open Online Course (MOOC) to support the development of Japanese medical students’ EMP skills. The three distinct stages to the research project are outlined below.

3.1 Stage 1: Researching the current state of EMP delivery at Japanese universities

In stage 1 (ongoing), the researchers are conducting an in-depth investigation into the current state of EMP delivery at Japanese universities. This involves a detailed examination of EMP curricula and courses at Japanese universities. The researchers are also analyzing existing online EMP support material which has been designed for medical students. Interviews with EMP educators in Japan and overseas, medical practitioners, and members of the Japan Society for Medical English Education (JASMEE) are being conducted regarding Japanese medical students’ EMP needs and possible content for the EMP MOOC. In August 2022, as part of this investigation, the research team interviewed teaching and medical professors at Bond University in Australia regarding EMP delivery. These discussions have helped shape the future direction of the EMP MOOC.

3.2 Stage 2: Creating a pilot EMP MOOC

In stage 2, the researchers will design and create a pilot EMP MOOC. With the help of online education experts at Bond University in Australia, and members of JASMEE, the researchers will create unique and innovative material for the EMP MOOC. Such material will be related to ten separate units based on specific EMP themes such as; ‘*Taking a clinical history*’; ‘*Examining a patient*’; ‘*Making a diagnosis*’; and ‘*Treatment*’. Each unit will be equivalent to five to ten hours of self-study (Table 1). The material will include videos of content-lectures, sample medical scenario videos, interviews with in-service doctors, vocabulary lists, practice tests, and quizzes.

Table 1: Example of proposed EMP MOOC units

Unit	Theme
1	Taking a clinical history I
2	Taking a clinical history II
3	Examining a patient
4	Special examinations
5	Investigations
6	Making a diagnosis
7	Treatment
8	Mistakes made by doctors when speaking in English
9	Reading and writing medical articles
10	Making a presentation in English

3.3 Stage 3: Monitoring the efficacy of the EMP MOOC

In stage 3, a cohort of third- and fourth-year Japanese medical university students studying in Nagoya will be asked to use the EMP MOOC and give feedback on the design of the units and the online material. Practicing physicians will also be asked to provide their feedback on the material. The research team will collect data on the efficacy of the pilot EMP MOOC through the medical students’ comments on each unit using an online questionnaire, focus group interviews, and one-to-one interviews. Data will be analyzed using quantitative and qualitative methods and used to refine the EMP MOOC with a view to making it available for medical students, medical practitioners, and universities within Japan at a future date. Table 2 lays out the researchers’ respective roles.

Table 2: Researchers' roles

Researchers' Roles – Cripps and Yamamoto (山本)	Stage 1	Stage 2	Stage 3
1. Conduct detailed literature review	Cripps/山本		
2. Create qualitative interview instruments	Cripps		
3. Interview EMP experts and medical practitioners	Cripps/山本	Cripps/山本	Cripps/山本
4. Analyze existing EMP courses and material	Cripps/山本	Cripps/山本	
5. Develop, administer, and analyze needs questionnaire	Cripps/山本	Cripps/山本	
6. Plan, create, and refine EMP material	Cripps/山本	Cripps/山本	Cripps/山本
7. Create EMP MOOC guidebook	Cripps/山本	Cripps/山本	
8. Launch and refine pilot EMP MOOC			Cripps/山本
9. Monitor EMP MOOC use		Cripps/山本	Cripps/山本
10. Develop, administer, and analyze pilot use questionnaire	Cripps/山本	Cripps/山本	Cripps/山本
11. Conduct interviews with medical students		山本	山本
12. Analyze interview data		Cripps/山本	Cripps/山本
13. Researchers' reflections of research cycle	Cripps/山本	Cripps/山本	Cripps/山本
14. Dissemination of results			Cripps/山本
15. Budget control	Cripps/山本	Cripps/山本	Cripps/山本

As mentioned above, expert educators, JASMEE members, and medical practitioners, will be invited to create material for the EMP MOOC and this process will be ongoing. The EMP MOOC will help medical students acquire essential EMP skills for when they become qualified doctors. Once completed, we envisage that the EMP MOOC will be used by medical departments at Japanese universities to support their students. In addition, we expect that newly qualified doctors will use the EMP MOOC to further their professional development. We believe that the EMP MOOC will make a significant contribution to the advancement of Japanese medical students' EMP skills.

4 ETHICAL CONSIDERATIONS

This research project involves the collection of data from medical students, educators, and in-service medical practitioners. Therefore, the following important ethical considerations are being implemented to protect the research participants. Each participant will be provided with an information sheet about the project in her/his first language. This information sheet will highlight the purpose of the study, methodology, framework, data storage security, and publication methods. Each participant will be provided with a consent form in her/his first language that also highlights the aforementioned items from the information sheet. The participants will also be provided with a 'Digital Data' consent form in their first language. It will highlight how the digital data will be used as well as the steps that will be taken to maintain their privacy and anonymity. The participants will be provided with an individual password to access the EMP MOOC. This password protection ensures that the EMP MOOC is closed and safeguards the anonymity of the participants. Nanzan University's Committee for Research Screening will review the various documents from this project to ensure that the research is conducted in a proper and fitting manner. Participation in this project is entirely voluntary and individuals may withdraw at any time and for any reason. No financial incentives will be provided. The research participants will be provided the opportunity to clarify and ask questions about any aspect of the study throughout the duration of the research project. Pseudonyms will be created to protect the identities of the participants. Each participant will be required to create an online alias that will be used when using the EMP MOOC. Participants will have access to their own data and data analysis upon request. All

data will be encrypted and kept on external hard drives which will be locked in a secure location at Nanzan University.

5 CONCLUSION

It is our belief that the EMP MOOC will help Japanese medical students acquire essential EMP skills for when they become qualified doctors. Once completed, we envisage that the EMP MOOC will be used by medical departments at universities throughout Japan to support their students. In addition, we expect that newly qualified medical doctors will use the EMP MOOC to further their professional development. We believe that the EMP MOOC will make a significant contribution to the advancement of Japanese medical students' EMP skills. Creating a dedicated EMP MOOC will allow students free access to a comprehensive EMP course and material that will help support and improve their EMP skills during their time at university and beyond.

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Educational And Experimental Area And Its Role In The Development Of Students' Biological Knowledge

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ABSTRACT

The educational and experimental area is part of the school, which contributes to the implementation of creative, project-based activities, facilitates the development of students' personality through a system of constant observations, experiments and creative projects, that is an effective continuation of the teaching and educational process as well.

Contemporary pupils should be ready for independent life in society, being engaged in experimental and project activities, they get an idea of their own capabilities and abilities to plan and carry out actions, learn to perceive themselves as a participant of activities focused on self-cognition and self-education. In other words, the pre-school educational and experimental area at this stage should be transformed as much as possible to provide opportunities for pupils to conduct experimental work.

Educational and experiential work in the preschool plays an important role in improving the quality of the pupils' knowledge on biology, ecology, and inspires and develops their various cognitive interests. It introduces them with the implementation of science into the practical human activities, and serves as a means of introducing pupils to independent research and consolidation of knowledge. It helps them to improve their practical skills and introduces with the scientific fundamentals of agricultural production. Moreover, it inspires an interest to agriculture.

KEYWORDS: educational and experimental area, educational and experimental work, pre-school area, agriculture, educational and research platform, educational program.

INTRODUCTION

In recent years there have been significant changes in the social life of society that have required a review of the former system of education. One of the competences of the modern student should be the ability to set and solve certain educational, and scientific problems, to find ways and means to formulate and analyze them. Biology as a subject requires a connection with the learning material studied at school with the wildlife.

This feature, being different from other subjects, has contributed to the problem of incorporating the living objects of school sites into the educational process. Defining new guidelines in the process of education and the development of the child's personality requires from the teacher to rethink the pedagogical and educative process in biology. In this case, the formation of students' biological and ecological knowledge on the basis of the educational and experimental site, which contributes to a deeper comprehension of theoretical material by the pupils and its application in non-standard situations, is of great importance. This creates conditions in which the intellectual potential of each learner is realized [1; 4163].

The analysis of school practices has shown that in the process of teaching biology not enough attention is paid to the issue of using the base of the educational and experimental plot for the formation of biological and environmental knowledge of students. The educational and cognitive function of the school teaching and testing site has decreased, although the ecological and practical orientation of biological courses requires work on experimental teaching and testing site. Ineffective methods of conducting practical classes lead to the fact that learners develop only a superficial knowledge of biology and ecology.

From the experience of foreign teachers: an educational and experimental area was used in the Republic of Belarus as a greenhouse for growing seedlings and vegetable products and flower crops, in Tajikistan schools are provided with unheated greenhouses by drop irrigation. The conditions for the development of ecological research and practical skills of learners in growing environmentally friendly products are created. A Turkish government aid agency has installed greenhouses in five schools in the southern African kingdom of Lesotho to help learners to acquire skills in agriculture and agribusiness. They include a water tank and drop irrigation system with seedlings and other agricultural material [2; 1].

It is no secret that biology is a science where theory and practice are inseparable; a science where practical work, laboratory classes are one form of stimulation and activation of cognitive and research skills of pupils such as: observation, analysis, comparison, the ability to confirm or refute scientific phenomena and hypotheses by experiment. The development of skills will contribute to a better assimilation of knowledge, and therefore will raise the quality of education. Schools need more hands-on activities in nature, more information is needed where learners can visually reinforce theoretical knowledge in practice.

For this purpose, the school territory should represent an experimental area where it is possible to organize a training and experimental space for learners and conduct not only theoretical but also practical and laboratory work. They are carried out with the help of special equipment, natural objects, which enables to quickly and clearly obtain the necessary results. A particular role in the formation of pupils' skills in biology lessons is occupied by laboratory work. They are carried out with the use of special equipment, natural objects, which allows to quickly and clearly getting the necessary results [3; 3].

The project method is very popular, especially in the study of subjects of the natural cycle, and it also allows to implement an activity-based approach to biological excursions. This method of organizing pupils' independent work to solve educational, biological and ecological problems has a personal meaning for learners. In Kazakhstan, the project method of teaching got a new life with the introduction of an updated program, where learners defended mini projects; this method is aimed at the development of creative, cognitive and critical thinking, the ability to independently obtain knowledge and apply it in practice.

Due to their age peculiarities, pupils in the 5th-7th grades perceive didactic material with bright visual objects much more effectively, because for their age sensual perception of the world prevails over the logical one. During the course of the biology study, the pre-school educational and experimental area was used for a more detailed and in-depth formation of concepts, assimilation of biological and ecological characteristics of plants, practical application of knowledge in growing cultivated plants, practical application of knowledge in growing cultivated plants in the area.

The main activities of the learners at the experimental area were to grow plants, observe their growth and development. Learners learned how to record, collect, pick, analyze, compare the collected material and present the results of their research. The research method is an observation carried out during specially organized activities within the framework of the existing system of training with the use of active forms and methods of teaching [4; 178].

The aim of the study is to identify appropriate methods of biological and environmental knowledge formation of learners on the basis of educational and experimental area.

Objectives of the study: to identify the pedagogical conditions for the formation of biological and environmental knowledge of students, based on school teaching and testing area.

Hypothesis of the study: in accordance with the aim, the hypothesis that predicts the formation and development of biological and ecological concepts in the system of lessons on the basis of the educational and experimental area, and which contributes to the identification of effective methods of classes in the area, including a system of observations and experiments, has been put forward. Such approach stimulates the cognitive interest of learners, and should help to improve the quality of biology and ecology education of schoolchildren.

The practical significance of the work lies in the fact that the results of the study can be used to improve the methodology of teaching biology on the basis of educational and experimental area. They can also be used in improving the professional, methodological and practical training of teachers.

Table 1 Methods used during the experiment

No	Research Method	Application
1	Observation method	The study of the phenological phases of development of cultivated plants
2	Visual method	The assessment of the condition of crops, land areas
3	Comparison method	Statistics processing: analysis of indicators from the control and experimental areas.
4	Description method	Description of the morphologies of plants
5	Systematization and classification method	Partitioning of traits, plants
6	Degustation method	Determination of taste
7	Method of field photography	Photographing the plant under investigation
8	Literary Research Method	Acquaintance with plants, description of its characteristics and agro-technology
9	Yield Assessment Method	Commercialization, the use of their own products in the school canteen

Before starting the work of the educational and experimental plot, a technological map of work in the pre-school area and a diary of observations were developed (Table 2) [5; 136].

Table 2 A technological map of work on the school experimental area

Stages of agrotechnology	Implementing rules and quality requirements	Timeframe
1 Pre-sowing seed preparation: selection of seeds, germination of seeds	Selection of fresh seeds: wash seeds in 3-5% NaCl solution, stir, after 3-5 min remove the seeds that have settled on the bottom and dry them. Soak the seeds in a 1% solution of KMnO ₄ for 20 min and rinse thoroughly with water; keep on a wet base until the spout of the plant appears	March: germination 1-2 days until planting
2 Soil preparation and planting: recultivate the soil and apply fertilizer, preparing rows, sowing seeds	Apply humus to the soil, record the sowing date, taking into account the seeding rate, the depth of sowing, soil temperature, assess soil moisture, determine the seeding pattern and distance between the rows	April - May
3 Plant care Weeding, seedling thinning, watering, feeding, pest and disease treatment, plant formation (picking)	Seed germination depends on the culture: in sunny weather in 7-10 days, in cloudy weather - 12-15 days Before flowering, water 2-4 times a week, during the fruiting period - according to the state of the plants; dissolve in 10 liters of water ammonium nitrate 10-20, superphosphate 20-30, potassium sulfate 15-20, the rate of 10 liters per 3 m	The whole season
4 Harvesting	During sunny weather	August - September

Special sections were organized to carry out the work on the pre-school educational and experimental area:

- field plants section: fodder and grain crops that are of production importance in the area, as well as similar crops that are interesting in educational terms, should be placed here.

- vegetable section: it is necessary to grow vegetable crops in both open and closed ground conditions, taking into account crop rotation. It is recommended to divide the area of the section into two parts and use each part in one year as an experimental, in the other as a collection.

- the fruit and berry section: a smaller part is set aside for berry plants and orchards, and a larger part for a fruit garden. When creating a fruit and berry garden, one should remember that mature trees are of less interest for observation than rapidly changing young trees that can be moulded.

- the medicinal plants section can be grouped into different areas, for example: medicinal-food crops; herbs used to treat a particular disease; a garden for dried flowers; an alpine hill, etc. Involving learners for creating a medicinal section allows children to gain agronomic experience in cultivating certain crops. Plants from the medicinal section are used to decorate a herbarium, which then is used as a handout for laboratory work.

- the section of plant biology plays an important role in the courses of zoology, botany, and general biology. Here they perform experiments that clarify the most important biological laws.

- flowering and decorative section: both annual and perennial plants are planted, which serve for the aesthetic design of the school [6; 216].

The learners were assigned to each section. Each unit had the required number of tools, and an observation diary was drawn up (Table 3) [7; 80].

Table 3 Observation diary form

Date	Subject of experiment	Purpose of experiment	Experiment scheme	Size of the experimental unit	Biological characteristics of the experimental plant	Brief description of the crop	Calendar of experiments	Name of work, how to perform, deadline	Observations of plants	Performance Assessment

DISCUSSION

In the process of carrying out practical lessons in biology, on the basis of the training and experimental area, all didactic requirements are distributed, which are presented for a lesson (purposefulness, effective amount of educational material of lessons, its integrity and completeness; keeping didactic stages of a lesson, compliance of methods of teaching with the content of material and pedagogical purposes of a lesson; rational use of the educational time; implementation of an individual approach). Compliance with these requirements, as school practice has shown, contributes to the effective formation of students' biological knowledge and skills on the site [8; 244].

Our research allowed us to identify and substantiate a number of requirements for the content and structure of practical lessons in the educational-experimental area, in compliance with which the quality of biological knowledge and practical skills of pupils increases. These requirements include: compliance of the goals and objectives of teaching with the content of biological knowledge; consideration of the logical structure of the transmission of educational information, peculiarities of the educational process in the educational and experimental area; consideration of didactic requirements; consideration of the age specifics of pupils in grades 5-7 of a rural secondary school.

In the course of the work, we paid attention to the stages of development of the concepts in the formation of knowledge, skills and abilities of students. For this purpose, we selected such methods and methodological techniques which would take into account the peculiarities of the content of the classes at the site and would contribute to the specification, expansion, and generalization of the concepts. For each specific lesson, we made a list of concepts in accordance with the content of the topic under study, selected methods and techniques, identified opportunities for using the site base in the formation and development of knowledge. At the same time in the course of training on the area base a combination of different methods of training (conversation, explanation-demonstration of experiments, natural volumes-observation, recognition and identification of objects) was used [9; 19].

CONCLUSION

In our research we came to the conclusion that the learning process on the basis of the educational and experimental area is more effective by combining the following methods: verbal explanation with sensual knowledge of pupils of objects and phenomena of nature and practical influence on them [10; 165].

All this provides an opportunity to deepen and specify biological and ecological concepts. For example, in practical lessons in the area, the processes of life activity of cultivated plants are initially considered as phenomena, and then their essence is clarified. Observing the plants of the educational and experimental area, the pupils fix the growth, that is, the increase in the mass of the plant, but the nature of the biologically important process can not be explained. Therefore, the teacher explicates the process of plant growth by connecting the observations on the teaching and experimental unit.

From the analysis of the results of the study it follows that the formation of biological knowledge on the basis of the school training and experimental area is more successful with the implementation of methods that provide:

- 1) The use of natural objects of the educational and experimental area, observations and experiments as a source of knowledge.
- 2) Using a variety of methods to organize learning activities on the school experimental area.
- 3) Using the most appropriate combination of methods and techniques for the development of pupils' intellectual activity.
- 4) Practical application of the acquired knowledge in biology to the school experimental field [11; 133].

The inclusion of practical biology classes has been identified as the basic foundation for a good science program that allows pupils in school to have experiences that meet the goals of scientific competency. Practical biology is an important part of biology education, and if it is not taught properly, it can have a negative impact on pupils' learning of other sciences. Consequently, experiential learning is very important to biology instruction; pupils who are taught biology theoretically without a hands-on aspect tend to lack scientific inquiry skills [12; 45]

The effectiveness of the teacher of biology in the formation of a scientific worldview of pupils is manifested in the following: in the way pupils think and respond, which is manifested in the ability to establish phylogenetic relationships; to identify the interaction of phenomena and rules of nature; to give a scientific explanation of phenomena; in pupils' ability to apply knowledge of general provisions to explain specific phenomena; information searching and ability to work with the text; to draw independent conclusions from the studied material; to defend and prove their views and beliefs [13; 55].

Having studied the experience of leading methodologists and teachers, analysis of pedagogical and methodical literature, as well as from my own observations, we can conclude: the school teaching and experimental plot is a proven methodology that is suitable not only for rural but also for urban schools. The theory is easily confirmed by constant practice. The main thing is that children acquire knowledge and skills and can apply them immediately in practice in the schoolyard.

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Language Transfer as a Cause of Translation and Interlanguage Errors Between L1 Japanese and L2 English

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ABSTRACT

Japanese and English are linguistically dissimilar. This differences between the two languages are often cited by learners and teachers as one reason that Japanese seem to struggle with learning English more than speakers of other languages. Also, this makes translation between the two languages complicated. In this presentation I will discuss instances of negative language transfer that can cause translation errors and impede Japanese L1 learners' acquisition of English L2 with grammatical and lexical examples, based on the *contrastive analysis* (CA) approach. When approaching the theme of “errors” in the language produced by second language learners, concepts and approaches such as *common developmental sequences* and *error analysis* have become more commonplace starting points than CA. One of the reasons that CA, which posits that the majority of language errors can be attributed to differences between the L1 and L2 language systems, fell from favour was that it was linked to and based in *behaviourist* views of language acquisition that have also been largely abandoned by researchers. However, there is no doubt that our first language, or other previously learned languages, combined with cultural factors do indeed exert influence on our acquisition and use of additional languages. Furthermore, understanding structural linguistic differences is vital for increasing the ease and accuracy of translation.

Keywords: contrastive analysis, language transfer, translation errors, interlanguage errors

On Profession and Recreation: Reflections from Classroom and Court as a Teacher and Badminton Player

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ABSTRACT

Health is a phenomenon intended to ensure that the person, family, and society are protected to develop their well-being, which is also inclusive of humans' social and professional aspects of their lives (Aksoy, et al., 2017). Hence, developing behaviors that create, secure, and maintain healthy lifestyles should be promoted among humans (Aksoy, et al., 2017). In this sense, engaging in recreational activities becomes essential in maintaining wellness and a healthy work-life balance if we are to promote holistic development of individuals. This paper then aims to survey the literature on recreational activities and relate them to insights gained from the author's experiences both as a teacher, specifically an English language lecturer, and a badminton player who engages in the sport as a recreational activity. The paper then concludes with the recommendation that schools and other institutions should include wellness as part of their employees' professional development programs which should be made accessible and available to all their workers. Programs that encourage sports or other physical activities, artistry and creativity, and other forms of recreation based on personal preferences can be very valuable to educators. In consultation with the experts in the field, time allotment, procedures, and other logistical considerations must be made. It is also further recommended that more studies be conducted on teachers' well-being and job satisfaction in order to promote personal and professional growth and in turn, mitigate cases of burnout for their own and their students' well-being.

KEYWORDS: *well-being, teaching, recreation, badminton*

1 INTRODUCTION

With people facing different challenges, responsibilities, and tasks, among others and finding themselves in various environments, it is more crucial than ever to maintain a healthy lifestyle and a balance between personal and professional life. Given the challenges encountered by employees in the workplace, for instance, rapid technological changes, health concerns, and migration of workers, having workers who are well-driven and skillful with job satisfaction and high productivity is the means by which high quality personnel can be realized by organizations and institutions (Aksoy et al., 2017). Productivity, self-development, and good relationship building reflect the workers' job satisfaction which influences their economic as well as their psychological well-being (Aksoy, et al., 2017), especially considering that Daly and Morton (2011) asserted that stress and anxiety must be tackled since they are deemed to lead to 'burnout'.

Health is a phenomenon intended to ensure that the person, family, and society are protected to develop their well-being which is also inclusive of humans' social and professional aspects of their lives (Aksoy, et al., 2017). An individual's well being in terms of the physical, mental, emotional and social aspects relate to health (Ertuzun et al., 2013), and that "In terms of today's point of view, health includes life quality and life satisfaction" (p. 510). Involvement in recreational activities is considered the most effective means of alleviating stress since "an individual will feel emotions such as relaxation, refreshment, changes and escape from daily life, and will purify his body, spirit and mind" (Bammel & Burrus-Bammel, 1996, as cited in Ertuzun et al., 2013, p. 510).

Hence, developing behaviors that create, secure, and maintain healthy lifestyles should be promoted among humans (Aksoy, et al., 2017). In this regard, the role of recreation in enriching lives cannot be emphasized enough due to its numerous benefits, for example in terms of improving one's physical, social and mental well-being. "Recreation, which means relaxing and pleasant activities that people do voluntarily in their free time, is a concept that provides the physical and psychological renewal of individuals" (Aksoy & Arslan, 2019, p. 569). It also involves activities that are optional and are done out of one's volition whereby such activities are done solely by individuals or by teams during their free time and bring them satisfaction (Basoglu, 2013; Hacıoğlu, et al., 2003, as cited in Güleri & Çolakoğlu, 2020), for example, "to meet...[the] need of resting, entertainment and development...to get away from everyday life's stress" (Ozturk, 2016, p. 114). Moreover, "Recreational activities also can be defined as physical activity, social interaction, and mental relaxation" (Aksoy, et al., 2017, p. 1057). Furthermore, "Recreation is defined as the restoration of the human's ability to function (Alli, 2007, Famayo & Adunbi 2009, as cited in Agbabiaka, et al. 2020, p. 2).

In terms of benefits of physical activity, Zubir et al. (2022) asserted that "The lack of physical exercise is regarded as having far-reaching health, economic, environmental and societal implications" (p. 2076) and that "Physical inactivity is responsible for 9% of all deaths worldwide (Lee et al., 2012, as cited in Zubir, et al., 2022, p. 2076). Moreover, according to Physical Activity Guidelines for Americans (2018), at least 150- 300 minutes per week of moderate-intensity physical activity that adults should do to obtain considerable benefits and that exceeding the 300 minute physical activity that has moderate intensity in a

week provide additional gains for them, health-wise. Moreover, “Regular physical activity (PA) engagement has been associated with important physical, mental, social and affective-emotional benefits” (Cabello-Manrique, et al., 2022, p. 1).

This paper then aims to survey the literature on recreational activities and relate them to insights gained from the author’s experiences both as a teacher, specifically an English language lecturer, and a badminton player who engages in the sport as a recreational activity.

2 LITERATURE REVIEW

This section surveys relevant literature in the fields of profession in relation to recreational activities, with a separate section on studies related to badminton.

2.1 Previous Studies about Recreation in Relation to Profession

A study by Aksoy and Arslan (2019) examined the recreational activities related to sports by 497 male students. They found that with regard to leisure time barriers in relation to Individual Psychology, Service and Transportation, Time, Social Environment, Lack of Friends and Lack of Interest, there were statistically significant differences observed between the participants who were engaged in recreational sports activities and those who were not.

Not only do recreational activities are beneficial to the physical and mental well-being, but they can also play a role in developing leadership behaviors. For instance, Basoglu (2013) examined recreational activities related to sports and their effects on the leadership behaviors of students at the secondary level. There were two modes of leadership considered in the study: transactional and transformational. According to Burns (1978, as cited in Basoglu, 2013,)), “transactional leader are leaders who exchange tangible rewards for the work and loyalty of followers” while “transformational leaders are leaders who engage with followers, focus on higher order intrinsic needs, and raise consciousness about the significance of specific outcomes and new ways in which those outcomes might be achieved” (p. 102). The results showed that students who participated in sports activities scored higher on both transformational and transactional leadership behaviors than their counterparts. Moreover, those who did not engage in sports activities primarily showed transactional leadership behaviors.

Aksoy et al.’s (2017) study involving 282 male participants from organizations and public institutions in the City of Vezirköprü in Turkey’s Samsun province compared the quality of life and job satisfaction of those who participated in sports and those who did not. It was found that the participants who were involved in sports had higher perceived job satisfaction and general life quality than those who did not participate in sports.

While there are a considerable number of studies (e.g. Aksoy & Arslan, 2019; Basoglu, 2013) that investigated the role of recreational activities among students, the literature in this particular area of study seems scarce when it comes to educators. For instance, Biernat and Roguski (2009) examined the leisure activities of 52 teaching staff from a private university-level in Poland. Based on the results, about 70% of the participants reported engaging in recreational activities. Of those leisure practices, the most frequent were individual activities such as skiing, tennis, swimming and cycling. 80% or more reported short- or long-lasting local trips and about 50% traveled overseas. In Agbabiaka et al.’s

(2020) study, they investigated the recreational activities of the residents of a university staff quarters in Nigeria. They found that while there were available and varied facilities in the area, the residents did not engage in more activities related to recreation as only a few of the respondents engaged in such activities. Factors that influenced the participants' visits to recreational facilities included socioeconomic, facilities, mobility, information, and time.

Another study related to the recreational activities of educators is that of Gunel and Hacicaferoglu (2020) who investigated the hopelessness and assertiveness levels of female teachers working in different branches in state educational institutions in Antalya. They compared the control group who did not engage in sportive recreational activities with the experimental group who were involved in recreational activities. The activities included brisk walking exercises for 60 minutes, including 15-minute warm up and 10 minute cooling off exercises, three days each week for a period of twelve weeks. Significant increased levels in assertiveness and decreased levels in hopelessness were observed in the experimental group. However, the hopelessness level of the control group remained the same in their pre-test and post-test scores while their assertiveness level pre-test and post-test scores did not have a statistically significant effect.

Muthoni's (2015) identified the various factors that influenced the participation in recreation among 291 female teachers from public and private secondary schools in Nairobi. Watching television, followed by walking and then going to the gym were the most preferred leisure and recreation activities by the participants. It was found that teaching workload, as well as the cost of leisure and recreation, and domestic chores, was deemed the most significant factor related to the respondents' participation in leisure and recreation. However, the factors that did not influence their leisure and recreation participation were marital status, the number of children, and education level. Moreover, the factors that were considered unimportant in relation to leisure participation were "Encouragement from significant others, availability and access to facilities, commuting time, gender discrimination and type of class taught" (p. 63).

In Ngeti et al.'s (2018) study, the influence of facilities and equipment in terms of the management of competitive sports by 90 female teachers in secondary schools in Taita Taveta County was examined. Based on the results, the availability of sports equipment and facilities were rated as important by those who participated in sports management; hence, the researchers recommended that sufficient equipment and facilities be made available to engage more female teachers in sports management.

Ozturk (2016) considered the part that sports plays in the recreational habits of 378 kindergarten teachers in Gaziantep province. level. The findings indicated that participating in sports was the primary recreational activity that the participants did, most of whom preferred walking as a sport activity, and identified health as the main reason for their involvement in such activities. Moreover, satisfaction and relaxation were experienced by the participants after doing the recreational activities, gaining them success professionally.

Another study that involved educators in terms of leisure activities is that of Ustun et al. (2017). The limitations in relation to leisure activities considered by 228 teachers of physical education, and music/ arts in Kutahya, in Turkey, were investigated. The results showed that the factor found to be the most important for the participants was 'time' while the least important was 'lack of interest'. Moreover, it was interpersonal factors (e.g., social

relationships) that were deemed more of as constraints by other non-physical education teachers while intrapersonal factors (e.g. self-esteem, motivation,) were seen more of as limitations by the teachers of sports and physical education.

2.2. Previous Studies about Badminton

When people engage in sports in their free time as a non-professional, the activities are considered “recreative” (Ozturk, 2016). Ozturk (2016) asserted that participating in sports-related recreational activities can provide mental and physical well-being, ease anxiety and stress, and be beneficial for an individual’s satisfaction, creativity, and calmness and further stressed the importance of educators being involved in such activities.

Aside from the overall benefits of physical activities as recreational activities, there are numerous benefits of playing badminton, specifically. Badminton, a sport requiring strength, endurance, technical and game skills, coordination and speed is becoming an increasingly popular sport (Genc & Ali, 2019) and is a sport that is deemed as one of the most popular worldwide (Pamungkas, et al. 2022). It also requires moving quickly and changing directions frequently and combines very high and moderate intensity movements and that “From the standpoint of energy systems, badminton is one of the most demanding racket sports” (Jaworksi, et al., 2017, p. 34), as it trains strategy and precision (Pamungkas et al., 2022). Moreover, shoulder and neck stiffness brought about by a sedentary desk job for a long period of time can possibly be eased by badminton (Feng & Wang, 2023).

In terms of health, it has been found that badminton can be beneficial based on a number of studies. For example, a study by Zubir et al. (2022) examined the changes in blood pressure indices and working memory of the elderly who played badminton for recreation. The site of the study was in Negeri Sembilan, Malaysia. The participants were grouped into three, namely, high-playing time (HPT), low-playing time (LPT) and non-racquet sports playing, which was the control group (CON). It was found that while there were no differences found in the three groups, in terms of working memory, better blood pressure profile was observed among the elderly who belonged to the high weekly badminton group as compared to the participants in the control group. The researchers then concluded that “The elderly who participates in recreational badminton with appropriate playing durations will significantly benefit by enhancing their health” (p. 2080), further highlighting that the “study contributed to providing additional knowledge on how playing recreational badminton positively alters physiological and cognitive health, especially in the ageing population (p. 2080).

Another study that investigated the health benefits of badminton, this time, to students was that of Sutula et al. (2021). The research involved thirteen female students who were studying "Recreational Games" in the second year of the Kharkiv State Academy of Physical Culture (KhSAPC). The students underwent a program for health and recreational badminton done twice per week for a duration of six months. Certain indicators (e.g., body weight, hand muscle strength, height, and vital capacity of the lungs or VC) were taken into account before and after the experiment. Findings showed that the participants’ VC and hand strength improved in the duration of the program while there was nearly no change observed in the weight and height of the participants. The researchers then concluded that the participants’

degree of physical fitness and health and also the functioning state of the cardiovascular and pulmonary systems were all improved by the program.

Moreover, Pamungkas et al.'s (2022) correlational study found a significant relationship between endurance and badminton playing skills, as well as between agility and badminton playing skills. In this study, twenty male students participated in badminton as an extracurricular activity. The activity was done every Saturday for two hours from 12 January to 29 February 2020 and instruments included multistage fitness test for endurance, a shuttle run for agility, and round robin for a badminton skill test.

Genc and Ali (2019)'s study involved 16 female students studying at the School of Physical Education and Sports in a university in Turkey. The participants were divided into experimental and control groups. As part of their pre- and post-tests, various factors (e.g. height, body weight, back strength, leg strength, dominant and non-dominant hand grip strength, vertical jump, long jump tests, flexibility measurement, and 30-meter speed running) were taken into consideration. The control group joined in physical activities and theoretical and practical courses in school while the experimental group underwent a training program in badminton, three times a week of about 80 minutes for a period of 8 weeks. It was found that in terms of the pretest, there was no statistically significant difference found between the two groups. However, the experimental group demonstrated a statistically significant difference in their body weight, body mass index, and body fat percentage in the posttest. Moreover, the differences in the posttest between the two groups when considering their dominant and non-dominant hand strength and their average in 30-minute speed running were significant on the part of the experimental group. Finally, the experimental group exhibited statistically significant differences in their posttest in long and vertical jump tests.

Another study that examined badminton benefits, this time, to coordination motor abilities is that of Jaworski, et al. (2017) where the participants were 30 badminton players and 54 non-athlete peers in Poland. To measure the coordination motor abilities levels, computer tests involving a touch screen laptop were used. The conclusions drawn from the study included that for badminton players, training experience and age played a role in their coordination motor abilities, and that they showed a higher level of coordination abilities in comparison with the non-athletes. Moreover, as regards individual age groups, badminton players and non-athletes demonstrated differences in their coordination motor abilities levels.

With the survey of the studies, it cannot be stressed enough that engaging in badminton provides various benefits that contribute to the overall well-being of individuals. Playing sports as a recreational activity should then be taken seriously in order to maintain a well-balanced lifestyle for educators and other professionals.

3 DISCUSSION

This section includes insights gained from the author's experiences as an educator and as a badminton player who plays the sport recreationally.

As mentioned, Ozturk (2016) asserted that participating in sports-related recreational activities can provide mental and physical well-being, ease anxiety and stress, and be beneficial for an individual's satisfaction, creativity, and calmness and further stressed the importance of educators being involved in such activities. In terms of physical well-being, in my modest observations, I have developed some level of endurance and stamina as a

badminton enthusiast for more than a decade. The physical ability to stay on task and to sustain a certain amount of energy is very helpful especially on tasks that need extra time and energy to complete them. Moreover, as it has been noted, shoulder and neck stiffness brought about by a sedentary desk job for a long period of time can possibly be eased by badminton (Feng & Wang, 2023). Playing badminton provides me the needed break from sitting for a certain amount of time to mark papers or prepare lesson plans in front of the computer.

Personally, playing badminton for recreation provides enjoyment and respite from the workplace. As it has been noted, involvement in recreational activities is considered the most effective means of alleviating stress since “an individual will feel emotions such as relaxation, refreshment, changes and escape from daily life, and will purify his body, spirit and mind” (Bammel & Burrus-Bammel, 1996, as cited in Ertuzun et al., 2013, p. 510). In this way, playing badminton helps me relax and invigorates me again and again to prepare for the workload ahead. Moreover, while it entails expending energy, playing badminton makes me feel refreshed the next day, since exercising can help improve sleep quality (Breus, 2022).

In addition, the quick and varied movements in badminton, along with its unpredictability, elicit excitement and challenge, not only physically, but also mentally since developing strategies are very important in the sport. In terms of teaching, exploring different ways of instruction and designing creative activities can help in developing interest and motivation of the students. Playing badminton involves calculated movements and spontaneity, as well, and these can help anticipate possibilities that can prepare the player, in the same way that teachers can anticipate various scenarios that entail a combination of routines and spontaneity inside the classroom.

Moreover, I believe that badminton cultivates values and traits which are also reflected in the teaching environment. It is a game of 3 P's: *patience*, *persistence*, and *precision*, all of which are developed over time and with discipline and commitment. Time management and setting priorities are also required in making time in the schedule to engage in badminton as a recreational activity. Having been a badminton enthusiast for more than a decade, I can say that my passion for the sport has grown over time, as I always find time and ways to ensure that there is room for the sport in my weekly routine. The skill and the art that it demands continue to fascinate (and at times, baffle) me. After all, it is a game of strategy and precision (Pamungkas et al., 2022) that provides the challenge and excitement for me, especially considering that “From the standpoint of energy systems, badminton is one of the most demanding racket sports” (Jaworksi, et al., 2017, p. 34). Aside from that, resilience is also developed as players are faced with varied levels of difficulty and should be able to recover quickly to bounce back in the game.

In terms of communication and social skills, playing badminton with peers provides a support system bound by common interest. Here, verbal and nonverbal forms of communication are essential, especially when playing doubles in badminton. The teammates must communicate well and be in sync to maximize the play. Peer teaching in a more relaxed and casual environment is also evident as I have benefited especially from the tips and advice of the more advanced players to further hone my skills and strategies. Words of encouragement provide a positive environment that encourages camaraderie and healthy competition. These provide teachable moments as teachers can be or actually students because they keep learning.

Hence, such skills and traits developed from playing badminton are valuable not only in sustaining a balance between the professional and recreational aspects in life but more importantly, are life skills in themselves, necessary in maintaining one's well-being.

4 CONCLUSION

Maintaining a healthy and balanced lifestyle is essential for people's overall well-being and is an important priority. Hence, schools and other institutions should include wellness and interest clubs as part of their employees' professional development programs which should be made accessible and available to all their workers. Programs that encourage sports or other physical activities, artistry and creativity, and other forms of recreation based on personal preferences can be very valuable to educators. Applicable technical and medical support must also be considered. For example, due to its intensity or inadequate preparation, badminton can also have a certain effect on the body (Feng & Wang, 2023). Hence, proper preparation and caution need to be regarded. In this sense, in consultation with the experts in the field, time allotment, procedures, facilities and other logistical considerations must be made. It is also further recommended that more studies be conducted on teachers' well-being and job satisfaction so as to promote personal and professional growth and in turn, mitigate cases of burnout for their own and their students' well-being.

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Self-Analyzing Conversational Performance: Teaching EFL Students to Construct and Analyze their BEFORE and AFTER Conversations

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Abstract

This paper describes a teaching method for English oral communication that is based upon the students 'self-noticing' particular structural features of their own language use during dialogic conversation. Specifically, it shows how EFL learners can be taught to record, transcribe and analyze two of their own dyadic English conversations: one recorded before the teaching phase, and the other recorded after the teaching phase. Through quantitative and qualitative analyses of the data from the students' own analyses and a questionnaire administered at the conclusion of the course, the teaching phase is evaluated in terms of the BEFORE-AFTER changes in

their individual dialogic contributions, thereby providing support for the hypothesis that these changes occurred because they 'noticed' where their performance needed adjustment. The teaching phase encompasses both how to structure an English conversation, and also how to analyze it. The results show that the students did notice particular features of their conversation and did indeed make adjustments in their AFTER conversations. Moreover, the teaching and analytic methodology trialed in the study proved itself valuable in raising the students' consciousness of these features and their personal usage of them.

keywords: EFL, teaching, methodology, analysis, conversation, structure, discourse

1. Introduction

When it comes to learning how to speak in a second or foreign language, one of the key facilitators to increasing or improving an EFL learner's English proficiency, is believed to be the ability of the individual to 'notice' his or her deficiencies - be they inadequacies in dialogic knowledge and skills, an insufficient lexical repertoire, or lack of linguistic knowledge - then study to decrease or eliminate an occurrence of that erroneous item or, vice versa, supplement, improve or increase frequency or usage of a desired item or behavior. The 'noticing hypothesis' (Schmidt, 1990; 2002) posits that noticing is the essential starting point for language acquisition, because nothing is learned unless it has been first noticed. Extrapolating on Schmidt's hypothesis, it follows that an 'aware' learner - that is, one that has 'noticed' - is likely to become more proficient than one with little or no awareness of his or her deficiencies. Leaving aside the issues of acquisition vs learning and proficiency, the question is how a learner notices or becomes aware of a deficiency in their receptive and productive spoken language skills? As teachers, we know that a learner either notices something either by him- or herself, or it is pointed out by an interlocutor or a teacher. Whether or not the learner then adjusts performance to address what has been 'noticed,' remains largely unknown without post-testing.

This paper describes a teaching method for English oral communication that is based upon the students 'self-noticing' particular structural features of their own language use during dialogic conversation. Specifically, it shows how EFL learners can be taught to record, transcribe and analyze two of their own dyadic English conversations: one recorded before the teaching phase, and the other recorded after the teaching phase. Through quantitative and qualitative analyses of the data from the students' own analyses and a questionnaire administered at the conclusion of the course, the teaching phase is evaluated in terms of the before-after changes in their individual dialogic contributions, thereby providing support for the hypothesis that these changes occurred because they 'noticed' where their performance needed adjustment. The teaching phase encompasses both how to structure an English conversation, and also how to analyze it. This is predicated on the belief that a conversation, as a distinct genre of spoken discourse and in contrast to it being labelled as largely unpredictable and therefore difficult to teach, does in fact encode constituent structures that are predictable in both their occurrence and structures, and hence 'teachable' in the classroom.

2. Background and context

At tertiary level in Japan, all universities, whether public or private, require all students – irrespective of their major course of study – to take at least two semesters of some type of oral English classes. Current popular course names include 'English Communication', 'Oral Communication', and 'Communicative English'. There is no choice for undergraduate students at the time of writing, and as a result the motivation of learners varies significantly. The vast majority are non-English majors, who have little or no pragmatic need or motivation for studying English. Put simply, English is a requirement of the state, and only a small percentage of students are expected to use English on a daily basis after their graduation. Compounding these conditions is the fact that, for EFL learners, opportunities for wide-ranging interaction with native speakers (NS) of English are all too infrequent and almost impossible (Pica, Lincoln-Porter, Paninos & Linnell, 1996: 60), and the classroom - in which the learners experience greater contact with other learners than with their teachers - remains the basis for the vast majority of interaction in English. Learners are frequently and increasingly the language resource for other learners.

In such an environment, there is a great variation in the content and methodology of English communication courses. Knowledge-oriented content that focuses on increasing the linguistic competence of students is usually imparted via the 'chalk-and-talk' methodology. This is more often the case when courses are taught by less-confident English-speaking faculty. Among native Japanese English teachers, bilingual textbooks are also heavily utilised, and the grammar and

vocabulary emphases, tends to ‘continue’ on the high school English education. That said, since the turn of the millennium, a more skill-based content approach that is designed to concretely address the acknowledged ‘lack of people able to carry on even a simple conversation in English’ has taken root. This approach focuses more on the strategic and actional competencies, variously known in the literature as ‘communication strategies’ (glossed here as the micro- or local skills of conversation which include such things as how to hold, yield, and take turns, add more information to utterances, ask for clarification, among others) and ‘negotiation of meaning strategies’ (glossed here as devices used to avoid or repair communication breakdown).

The teaching of these types of strategies, is grounded within a pedagogical approach that is influenced by notions regarding the value of interaction (Long’s ‘Interaction Hypothesis’, 1983; updated 1996) in the acquisition process. A growing body of evidence from primarily native speaker non-native speaker (NS-NNS) dialogue, but also to a lesser extent NNS-NNS research, suggests that learner-learner interaction could play as important, if not more important, a role in the acquisition process by assisting learners to obtain comprehensible input and feedback (Gass & Varonis, 1985; Hatch, 1978; Long, 1983; Varonis & Gass, 1985), as well as providing ways to modify and adjust their output beyond their current interlanguage capacity (Lyster & Ranta, 1997; Swain, 1985; 1993; Swain & Lapkin, 1995; Pica, 1994; among others).

However, in the shift towards teaching micro-level (or bottom-up) language-in-use strategies, pedagogy has neglected to teach these strategies within a full discourse context. That is, there is a marked absence of pedagogy oriented towards teaching what is termed here ‘macro-conversational discourse proficiency’ - the ability to use language to construct and structure entire conversations in the target language. Arguably, this is perhaps because there has long been the perception that casual conversation is largely unstructured and as a result cannot be taught to EFL learners beyond ‘opening’ and ‘closing’ structures.

Language teaching has tended to regard casual conversation as unstructured and therefore unteachable in any explicit sense. As a consequence there has been a general assumption that all one can do is get students “up talking”. Such an attitude dooms students to a hit-or-miss approach.

(Eggins & Slade, 1997: 315).

One of the major assumptions of this paper is the belief that EFL conversation pedagogy, despite Swales’ (1990) contention that conversation is a ‘pre-genre’ and cannot be taught, can (and should) be taught if a ‘conversation-as-a-genre’ approach to pedagogy is adopted. That is, teach a basic conversation as being composed of a specific macro-generic structure and, at the same time, teach explicit structures within the macro-structure framework, that learners can internalize and reproduce when in conversation: in other words, provide them with a ‘road map’ from the beginning through to the end of the conversation. So, what are the components of the ‘road map’ of a conversation?

3. Potential Components of the Conversation

In casual conversation, research has shown that ‘genre’ exists at two levels: the macro-generic structure of the interactional or functional elements of the conversation itself (Ventola 1979), as well as the generic stages of internal story-telling structures such as narratives, recounts, anecdotes, gossip, jokes, and exemplums (Eggins & Slade, 1997). In other words, there is an generally predictable overall structure that through socialization has been ingrained in people of a particular culture. We will deal with this macro-generic aspect first, and discuss the personal story sub-genres below.

There are two types of ‘talk’ within the structure of a conversational dialogue itself. There are the short, quick exchanges of greetings and ending talk, inquiries about well-being, and the type of talk that goes on as the interlocutors ‘search’ for a topic of interest that can expand beyond a single exchange. In addition to the short exchanges, are occasions when one speaker might dominate the talk for a time as s/he goes into greater depth about a topic. For EFL educational

purposes with our students, we have labeled these two distinct types of talk as ‘chats’ and ‘chunks,’ however, in discourse analysis they are known as ‘exchanges’ and ‘personal stories.’

‘Chats’ are parts of the conversation where the speaking turns of each person are quite short and interlocutors change turns fairly quickly. Each person generally talks for about the same amount of time. The dialogue moves quickly and information is exchanged as if two players having a game of table tennis. Each person only has a turn for a short time and they keep hitting the ball back to each other immediately.

On the other hand, ‘chunks’ are those parts of the conversation where one interlocutor talks for a longer time. In a basketball game, one person may hold the ball for a long time, bouncing it on the floor as he or she goes down the court looking for a person to pass the ball to. Finally, the person with the ball passes it off to another player. ‘Chunk’ sections of conversation are like these times when one speaker holds the turn for a longer time. Research (Plum, 1988; Eggins & Slade, 1997) has shown that often these longer turns are composed of personal narratives of the speaker. Together, these two types of components are intertwined throughout a conversation, and create comprise the macro-generic structure.

3.1 Component 1 - Macro-Structure elements

Based on research on the macro-generic structure of dialogue (Ventola, 1979; Eggins & Slade, 1997; Burns & Joyce, 1997), L1 exchange structures (Sinclair & Coulthard, 1975; Hinds, 1976; Coulthard & Brazil, 1981; Stubbs, 1981, among others), L2 negotiated exchange structures (Long, 1983; Varonis & Gass, 1985; Pica, Lincoln-Porter, Paninos, and Linnel, 1996; Shehadeh, 1999, among others) and personal narratives (Labov & Walestzy, 1967, Szatrowski, 1987; Plum, 1998; Maynard, 1989; Gerot & Wignell, 1994; Eggins & Slade, 1997, among others), the following ‘default’ conversation structure for a casual conversation was constructed. Note that the labels for each component have been ‘de-jargonized’ for use with EFL learners. Each sub-element has further been labeled by type-of-talk as a ‘Chat’ (i.e. exchange) or ‘Chunk’ (personal story).

Excerpt 1 – Constructed Conversation for use in classroom

1. Greeting (chat)
2. Well-Being Inquiry (chat)
3. Initial topic (chat)
 - *Secondary topic (chat)
 - *Tertiary topic (chat)
4. Speaker A Story (chunk)
5. Redirection (chat)
 - *Secondary topic (chat)
 - *Tertiary topic (chat)
6. Speaker B Story (chunk)
7. Pre-Closing (chat)
8. Closing (chat)

In Part 3, an initial topic might not develop beyond the exchange level, so the speakers move onto a second topic. Similarly, after Speaker A has concluded his/her story, in Part 5 there is either a return to the initial topic with an expressions such as “How about you?” or further short exchanges until Speaker B settles on a topic to spend longer turns on.

An example of the above structure in action is the following dialogue.

- | | |
|----------------------|---|
| 1. Greeting | A: Hi Ken.
B: Hi Toshi. |
| 2. Well-being | A: How’s it going?
B: Great!
How about you? |

		A: Not bad.	CHAT
3. Initial Topic		What did you do on the weekend? B: The weekend? Nothing much. Stayed home mostly. What about you? A: Well...let's see..	
4. Story 1	CHUNK	I had a pretty interesting Saturday. [B: Great] My girlfriend and I went and saw that new Harry Potter movie at Miyoshi iMall. B: Uh-huh. How was it? A: Pretty good - lots of special effects. The story was a bit hard to follow though. [B: Really] Anyway, then we had lunch at Mr Curry..you know, on the second floor. B: Oh yeah...yeah. Not bad. A: After that I bought a couple of CDs. [B: Uh-huh] I got home about 5. It was a good day but I spent too much money. [B: Too bad]	
5. Redirection MOVE		How about you? Did you just stay home the whole weekend?	
6. Story 2	CHUNK	B: No..I got bored just watching TV, so I went to jMall too on Sunday. [A: Uh-huh] Yeah.. I got there about 10, just as they were opening up Mr Donuts. And guess what? A: What? B: You know that cute girl in history class, [A: Yeah?] she works there. [A: Really!] I ate about six donuts just so I could stay there longer. [B: Uh-huh] Anyway, about 11 the staff started looking at me kind of strangely. You know..they wanted me to leave. [B: Oh..Okay] So, she came over and said...Hey...Katoh-san could you please leave? Wow! I couldn't believe it! She knew my name! [A: That's great.] B: Yeah. I can't wait for history this week.	
7. Pre-closing		{B looks at his watch} Anyway. I've got to go. Tony hates anyone being late for class. A: Yeah..I know. I'll see you at lunch.	CHAT
8. Closing		B: Catch you later. Save me a seat. A: Yeah, okay. Bye.	

3.2 Component 2 - Exchange moves

In regard to the chat exchanges, the learners were taught that exchanges were potentially constructed of six basic moves. Just like in basketball or soccer, each time that a speaker takes a turn, he or she can potentially do more than one thing. Some dialogic turns have only one move (the interlocutor passes the turn back quickly). Some turns have more than one (where the interlocutor keeps the turn). Below are the six basic moves in a chat exchange.

Initiation	(I)
Response	(R)
Cleaning-Up	(C)

Follow-up Information	(FI)
Pay-Back Initiation	(PBI)
Stallers	(S)
Register-Feedback	(R-F)

Initiation (I) moves occur at the start of the conversation itself with an initial greeting (e.g. ‘Hello’) or are used to introduce a new topic to the dialogue. *Pay-Back Initiation* (PBI) moves are used to push the turn back to the speaker by the use of (a) devices such as “How about you?”, or (b) questions that ask for further information about the current topic. *Response* (R) moves are replies to both Initiations and Pay-Back Initiation moves and contain information that directly addresses the question. *Follow-up Information* (FI) moves are added information that extrapolates on information in the response or initiation type moves. Due to cultural differences in conversational practices, it is considered impolite to both overly-question speakers or add what is considered superfluous or unnecessary further information to their own talk turns when speaking, so there is a marked hesitation and reluctance to add follow-up information in the dialogue of beginner Japanese speakers of English. *Cleaning-Up* (C) moves refers to clarification checks when communication breakdown, non-comprehension or misunderstanding has occurred. They consist of questions (such as “What?”), para-verbal expressions (“Huh?”) or non-verbal indicators (shrug, gaze). Paraverbal or verbal hesitation devices allowing the speaker to gain processing time before talking, are labeled *Staller* (S) moves. Register (or Feedback) moves consist of paraverbal, verbal and gestural (e.g., head nods) acknowledgements made by the listener whose function is to let the speaker know they have been heard.

Excerpt 1 shows how the moves interact in a series of exchanges.

Turn	Speaker	Discourse	Move	
A1	A:	Hi _____	(I)	}
B1	B:	Hi _____ How're things?	(R) (I)	
A2	A:	Not bad... And you?	(R) (PBI)	}
B2	B:	Great... Did you have a good weekend?	(R) (I)	
A3	A:	Uh..well... it was okay... I didn't do much..stayed home and watched movies mostly.	(S) (R) (FI)	}
B3	B:	Oh yeah?... What did you see?	(R) (PBI)	
A4	A:	Harry Potter and the Chamber of Secrets	(R ₁)	}
B4	B:	Huh..Harry Potter what?	(C)	
A5	A:	The Chamber of Secrets...	(R ₂)	
B5	B:	You know..the second one. Oh yeah.. etc.	(FI) (R)	

3.3 Component 3 - Personal story structures

The third component of the content was the structures of the story sub-genres. In regard to story structures, learners were taught the following three types, adjudged by prior research (Labov & Walestzy, 1967; Labov, 1972; Clancy, 1980; Szatrowski, 1987; Plum, 1998; Maynard, 1989; Gerot & Wignell, 1994; Eggins & Slade, 1997, among others), to be the most common in casual conversation: Recount (told by Speaker A in Excerpt 1); Anecdote (told by Speaker B in Excerpt 1), and, Narrative. Their potential structures (again utilizing classroom language rather than the linguistic terms) are as follows:

Recount stages:

1. Theme 2. Setting 3. Step-by-step Events 4. Summary

Anecdote stages:

1. Theme 2. Setting 3. Step-by-step Events 4. Remarkable Event 5. Reaction 6. Summary

Narrative stages:

1. Theme 2. Setting 3. Step-by-step Events 4. Problem Event 5. Events After 6. Resolution 7. Summary

Students were given multiple examples (transcribed by the researcher from students in previous courses) of each type for analysis and discussion, and then given stimulus questions in order to generate their own personal stories of each of the types. Next, they wrote out their own, and took part in conversations with random partners to whom they related their stories. The students were directed not to talk with their BEFORE conversation partner.

3.4 Component 4 - Speech interacts

The final component of the content (though taught second in the progression) were the Speech Interacts. In this course, the term ‘Interacts’ (Halliday, 1994) was used to denote the pragmatic speech actions of the interlocutors. Research on ‘speech acts’ (Austin, 1962; Searle, 1965) argues that speakers perform actions when speaking, just as a person does physically, for example, when opening or closing a door. In other words, our words perform ‘actions’ such as requesting, rejecting, informing, and accepting, among many others. Paltridge’s (2000) compilation of a basic list of speech actions (hereafter, interacts), with several additions by the author, forms the fourth component of the content of this course. Table 1 includes (but is not restricted to) the following:

Table 1. List of Basic Interacts

Greeting	Information Seek	Information Provide	Information Check
Feedback	Information Confirm	Opinion Seek	Opinion Provide
Clarification Seek	Clarification Provide	Invitation	Acceptance
Rejection	Comment	Acceptance	Leave-taking

This section has outlined the major components of the conversation and their structures. The above formed the knowledge content for the teaching phase of the course. Next, we look at the research questions, the method of the study and how the analytical skills were taught.

4. Research Questions and Method

The following research questions were formed.

RQ1: What features or aspects of their own contributions did the students notice in their before and after analyses of their conversations?

RQ2: Was the methodology and delivery of the course, beneficial in achieving RQ1?

In this pilot study, 12 dyads from a cohort of 24 EFL learners (21 female speakers labeled F1, F2, through to F21; 3 male speakers labeled M1, M2 and M3) undertook a 6-Step process over a 14-session course over a seven-week period. The students ranged in age from 19-23 and were sophomore through to senior students at a private university in Japan. Most of the students were majoring in English-language related courses but not all. The course methodology was divided into 5 phases.

4.1 Phase 1

In Phase 1, in the first part of the first lesson, the students paired off at random and audio-recorded a 5'30 to 6'00-minute English conversation on their cellphones. The participants were given no instructions as to what topics to talk about: they were just asked to record an English conversation discussing anything they liked. The dyads were dispersed to various regions of the campus and asked to return after 15 minutes with a recorded conversation. It should be stressed that this course was a multi-year elective and many of the students did not know other members of the class when they joined. This conversation was labeled the 'BEFORE' conversation.

4.2 Phase 2

In this phase, the learners were taught how to transcribe their conversation into an Excel file. This involved each speaker individually transcribing their own utterances and then transmitting their own transcriptions to their interlocutor. The dyad then worked on ordering the dialogue by numbering each line, resulting in each student having a copy of the combined transcription, and thus the entire conversation.

4.3 Phase 3

In this phase the teaching of the content (See Sections 3.1 to 3.4) was undertaken. As a component was taught, the participants then analyzed their own transcriptions for that component. For example, in the first session of the week, the content was taught and the students practiced analyzing example conversations for the particular feature that was being focused upon that week. In the second session of the week, the students worked together with their interlocutor to analyze and label their own dialogues for 5 features: Word Count; Interact Usage; Exchange Moves; Story Structures; and the Macro-Structure. Table 2 shows the progression of the content and analysis process.

Table 2

	Session	Session
Week 1	Introduction & Recording of BEFORE conversation	Transcription
Week 2	Macro-Structure	Analysis
Week 3	Speech Interacts	Analysis
Week 4	Exchange Structure	Analysis
Week 5	Story Structure	Analysis
Week 6	Recording of AFTER conversation	Transcription & Analysis
Week 7	Analysis	Comparison and Reflection Report

4.4 Phase 4

In this phase, the students recorded an 'AFTER' conversation of approximately the same duration (5'30 to 6'00-minute) with the same interlocutor as in the 'BEFORE' conversation, then transcribed and analyzed the data for the same features: Word Count; Interact Usage; Exchange Moves; Story Structures; and the Macro-Structure.

4.5 Phase 5

Finally, in Phase 5, the students completed a two-part report (see Appendix). Part 1 of the report asked the students to compare the data of their BEFORE and AFTER conversations and comment upon their own performances in terms of each of the components. Part 2 of the report asked them to reflect upon the course and self-rate their interest in the course, its usefulness or lack thereof, and whether or not they felt the course had been beneficial to their ability and confidence levels when speaking English.

5. Results

In their comparison reports, the students were asked to comment upon the analyses of their BEFORE and AFTER conversations in terms of the following 5 categories: (a) Word Counts (b) Interact Usage (c) Exchange Moves (d) Stories, and (e) Macro-Structure. This section does the same. For convenience, the conversations are capitalized BEFORE and AFTER.

5.1 Word Counts

Across the total of 12 BEFORE conversations, the 24 participants transcribed a total of 4619 words for an average of 193 words per speaker. The range varied between a low of 76 words for speaker F21, to a high of 325 words for Speaker F1. The top 12 speakers in the BEFORE conversations used a total of 2,835 which represents 61% of the total.

In the AFTER conversations, a total of 6263 words were spoken, representing an average of 261 words per speaker, an increase in the average of 68 words per person. In the case of the AFTER conversations, the top 12 speakers spoke 3611 words or 58% of the total. Among all, 22 of the 24 speakers improved their word counts in the AFTER conversation, with one of the two exceptions contributing the exact same amount (325 words), and the other student using 17 words less. Unsurprisingly, the top 12 contributors in the BEFORE conversation were also the top 12 contributors in the AFTER conversation.

The word count increase is not in itself surprising over the course of a communication course, given that the students were unknown to each other at the start of the program and had become more acquainted with each in the meantime. Naturally, any interlocutors would increase the volume of talk as they decrease the social distance between them, and it can be argued that the majority of communication courses would show similar increases. That said, while a learner's individual word count is not a particularly salient factor in judging the value of a course to a particular student, a significant increase in the comparison of word counts between the BEFORE and AFTER conversations, is perhaps best an indicator of how the reluctant or reticent speakers in the BEFORE conversation became less reticent, more confident and verbose over the length of the course. Thus, it is an indicator of 'value' in that sense. Table 3 shows some reflections from the students in regard to their Word Counts. Please note that the comments are listed here as written by the students.

Table 3 Reflections on Word Counts

Student	Comment
F19	In terms of Word Count, in the AFTER conversation (238), I increased my output by 95 words from the BEFORE conversation (143). This represents an increase of 66% in terms of the contribution I made in the AFTER conversation. This result shows that I have been able to understand the inner workings of a proper conversation so that it is both stimulating and challenging to me and my partner. An interesting result was it was evident that I was recalling my BEFORE conversation and consciously avoiding my mishaps from that time. Thus, in terms of Word Count, I am very happy and thoroughly pleased with these results because I found out that I only needed to learn how to structure my speaking so that I can successfully utilize my English vocabulary.
F4	In terms of Word Count, in the AFTER conversation (310), I increased my output by 111 words from the BEFORE conversation (199). This represents an increase of 56% in terms of the contribution I made in the AFTER conversation. This result shows that I could speak more words within the same time limit after taking this class. Thus, in terms of Word Count, I am satisfied with these results because I could speak 310 words within 5 to 6 minutes, in other words, I could speak about one word per second.
F10	In terms of Word Count, in the AFTER conversation (204), I increased my output by 51 words from the BEFORE conversation (153). This represents an increase of about 33% in terms of the contribution I made in the AFTER conversation. This result shows that I was more involved in the AFTER conversation than BEFORE. An interesting result was my partner also increased word count by about 37%. Both of us talked more than BEFORE conversation, so it can be said that we became more active to talk. Thus, in terms of Word Count, I am happy with these results because I made progress to be active in the conversation even though the time for talking was the same, 5 minutes.
F5	In terms of Word Count, in the AFTER conversation (301), I increased my output by 39 words from the BEFORE conversation (262). This represents an increase of 14% in terms of the contribution I made in the AFTER conversation. This result shows that I was trying to participate in the conversation more actively.

	An interesting result was it was not the quantity of interacts, but the content that had increased since the last time. Thus, in terms of Word Count, I am satisfied with these results because it was not something I was aware of, but it was because I was able to bring the other person's conversation out of me and communicate what I wanted to say to them.
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5.2 Interact Usage

In regard to interact usage, complete quantitative data sets were gathered from 20 of the 24 subjects. That said, not all the interact types were represented in the conversations. The major data types used and the numbers of students that used each is in Table 4. Note that the figures in parentheses represent the total frequency of each as reported by the students.

Table 4 Major interacts used and numbers of users

Interact	No. of BEFORE users	No. of AFTER users
Information Seek	20 (148)	20 (125)
Information Provide	20 (356)	20 (467)
Opinion Seek	2 (3)	2 (2)
Opinion Provide	3 (19)	3 (12)
Clarification Seek	6 (10)	10 (18)
Clarification Provide	3 (6)	11 (11)
Comment	13 (57)	16 (80)
Greeting	18	20
Leave-Taking	11	16
Feedback	18 (272)	19 (206)

In discussing this category, it is more relevant to focus upon the numbers of learners that reported usage of the particular interacts in the BEFORE and AFTER conversation. For reasons related to the inexperience of the learners as analysts (see the discussion below in the conclusion section), the raw scores for each category (in parentheses in the above table), cannot be relied upon with 100% accuracy. That said, it is clear that particular learners had noticed deficiencies in their BEFORE conversations and increased their personal use of particular interacts. For example, in the AFTER conversations, 4 more learners used 'Clarification Seek' interacts and 8 more used 'Clarification Provide' interacts, which suggests that some learners were more inclined to question their interlocutors when misunderstandings arose. Table 5 shows selected comments.

Table 5 Reflections on Interact Usage

Student	Comment
F6	The analyses of Interacts in the BEFORE and AFTER conversations show that I increased my use of Information Seek (+4), Information Provide (+8), Comment (+1), Feedback (+4), Opinion Provide (+12), Clarification Seek (+4), Discourse Marker (+3). However, It also shows that I decrease my use of Invitation (-2). This result shows that I provide more information and my opinion to the other person on a single topic. Thus, in terms of Interacts, I am very happy with these results because I was able to express many of my opinions to my partner.
F20	The analyses of Interacts in the BEFORE and AFTER conversations, show that I increased my use of Information Seek, Information Provide, Opinion Provide, and Feedback. This result shows that I gave my information and opinions more and gave turn to my partner more times. An interesting result was that I also increased the number of Feedback, so I reacted what she said more. Thus, in terms of Interacts, I am very happy with these results because our interaction became more active and, we exchanged more information.
F8	The analyses of Interacts in the BEFORE and AFTER conversations, show that I increased my use of Information Check and Clarification Seek. This result shows that I could check what my partner said. An interesting result was I could include more kinds of interact in the AFTER conversation. Thus, in terms of Interacts, I am satisfied with these results because I could clarify what my partner said when I had some questions.
M3	The analyses of Interacts in the BEFORE and AFTER conversations, show that I increased my use of responses with Information Provide. This result shows that I can now react to what my partner has spoken. An interesting result was that I didn't find it harder to continue talking than BEFORE despite the decrease in the number of words. Thus, in terms of Interacts, I am very happy with these results because I became good at conversation catchball.

5.3 Exchange Moves

As mentioned above, the students were asked to analyze their exchanges and identify the number of times they used Initiation (I), Response (R), Pay-Back Initiation (PBI), Follow-up Information (FI) moves. In particular, the idea was to assist the students to become aware of and notice how they could manage the conversation and keep an exchange active before introducing a new topic. In this respect, the key moves were the FI and PBI moves. As identified by the students themselves, Table 6 shows the BEFORE and AFTER figures for each of the key exchange moves. Note that these figures are based on 23 of the 24 students (one did not submit complete data) and also that the figures refer to frequency and not word counts.

Table 6. BEFORE and AFTER Exchange Moves

Move	BEFORE	AFTER
Initiation (I)	84	89
Pay-Back Initiation	119	110
Response	241	258
Follow-up Information	201	287

As can be seen in the table, PBI moves showed a slight decrease from 110 to 119, and Initiations and Responses increased slightly. On the other hand, Follow-up Information moves increased by 86. The raw score data shows that this increase can be attributed to 14 of the 23 students, which suggests that these students paid particular attention to the importance of adding extra information to their responses.

Nine of the 23 students increased the number of Initiations (I) they made, 10 increased their Response (R) moves, and 8 improved their Pay-Back Initiation (PBI) moves. Overall, two male students (M1 and M2) showed no increase in frequency across any of the four main move types. Of the remaining 21, all increased frequencies in at least one category. Student F24 increased usage across all four move types, 6 increased usage across three categories, 5 across two categories, and the remaining 9 across at least one category.

Table 7 Reflections on Exchange moves

Student	Comment
F2	The analyses of Exchanges in the BEFORE and AFTER conversations, show that I increased Clear-up Question. This result shows that I started to make sure what my partner said if I didn't understand it. An interesting result was that my partner also increased Clear-up Question. Probably, that was because we became more friendly and we were not afraid of saying "what?" in the AFTER conversation. Thus, in terms of the roles I played in the Exchanges, I satisfied with these results because I realize that I stopped leaving what I don't know.
F20	The analyses of Exchanges in the BEFORE and AFTER conversations, show that I increased Initiations (I), Response(R), and Payback-Initiations (PBI). This result shows that I gave more new topics as well as information about myself. An interesting result was that I increased Response(R) the most, so [my partner] asked me more questions and, I answered them. Thus, in terms of the roles I played in the Exchanges, I am satisfied with these results because I gave more topics and some questions related to these topics.
F7	The analyses of Exchanges in the BEFORE and AFTER conversations, show that I increased Initiations (I), Response (R), Payback-Initiations (PBI), Follow-up Information (RFI and FI), Register (backchannel; feedback) (Rg), Clear-Up Question (CQ), Clear-Up Response. This result shows that most of the numbers in the exchange category went up. An interesting result was there were no Payback initiation and no Clear-Up Question in BEFORE conversation, but there were 4 Payback Initiation and 3 Clear-Up Question in AFTER conversation.
F16	The analyses of Exchanges in the BEFORE and AFTER conversations, show that I increased / decreased... Initiations (I) -1, Response (R) +4, Payback-Initiations (PBI) +2, Follow-up Information (RFI and FI)+7, Feedback (F) +11, Cleaning-Up (CQ and CR) -4, Stallers (St) +5. This result shows that as a result of the increased information and concreteness of the conversation, there is less need for Cleaning-Up.

5.4 Story Incorporation

In regard to the inclusion of story structures in their conversations, 7 of 24 students reported telling a story in the BEFORE conversation, while 20 of the 24 reported they did in the AFTER conversation. The most common type of story told (as reported by the students) in the AFTER

conversation was the Recount (10), followed by the Anecdote (4) and Narrative (1). The remaining 5 did not identify the story by type in their reports.

Table 8 Reflections on Stories

Student	Comment
F11	In terms of stories, in the BEFORE conversation, I didn't tell a story, but on the other hand I told a story in the AFTER conversation. In the AFTER conversation, we told each other what we plan to do in summer vacation.
M2	In terms of stories, in the BEFORE conversation, I didn't tell the story in order. I didn't tell the "STEP BY STEP EVENTS". In other words, I told the fact, but I didn't tell the process and the reason why the things happen. Therefore, I think it was hard to understand my story. Furthermore, I couldn't entertain the listener. On the other hand, in the AFTER conversation, I could tell the story in the right order. I could explain my stories.
F3	The conversation changed from being self-centered to being conscious of the other person. What is interesting is that I am now able to talk from the other person's point of view. I used to talk about what I wanted to talk about as much as I wanted to talk about, but in the AFTER conversation, I started to talk concisely, and the pace of the conversation became more comfortable. I could have a more engaging conversation.
F2	In terms of stories, in the BEFORE conversation, I talked about just an event in order. In the AFTER conversation, I also told a problem event and how I solved it.

5.5 Macro-Structure

Various reports were given by the students in regard to their adherence to the macro-structure. While adhering to each of the elements in the basic macro-structure (above) was not a pre-requisite in the AFTER conversation (and the students were told this), the most-commonly reported use of a 'new' element was that of the 'Pre-Closing' feature. While only 6 dyads had reported use of this in the BEFORE conversation, 8 dyads reported its incorporation into the AFTER conversation. While this difference of 2 dyads is by no means a strong indicator of difference, an inspection of the transcripts showed that some dyads had in fact incorporated some of the pre-closing techniques (e.g., giving reasons to end the conversation by saying that they had to go to the next class, their part-time job or their train was coming) used during the course. Excerpt 2 is an example used by F13 and F14 in their AFTER conversation. Lines 110 through 113 shows the Pre-Closing stage, and lines 114-115 the Closing stage.

Excerpt 2

Line 110	F13: I have to go.
Line 111	F14: Oh. You have next class?
Line 112	F13: No. I have to go to the part-time.
Line 113	F14: Actually, I have next class.
Line 114	F13: OK. Bye.
Line 115	F14: Thank you. See you later.

Table 9 shows some of the student reflections on their attempts to create a more structured conversation.

Table 9 Reflections on Macro-Structure

Student	Comment
F10	In terms of structure, in the BEFORE conversation, I did not tell Pre-closing. On the other hand, in the AFTER conversation, we had time for Pre-closing. Thanks to Pre-closing, our AFTER conversation was more natural than BEFORE.
F11	In terms of the overall structure of the conversation, I think we had a relatively good conversation because we had all sections we learned: Greeting, Well-being, Initial Topic, Story, Redirection, Pre-Closing, and Closing. I think we had a relatively well-constructed conversation in terms of Macro-structure.
F16	In terms of the overall structure of the conversation, I think we came to continue the conversation about one topic. In BEFORE conversation, the topic did not last and we changed topic 3 times in 5 minutes. On the other hand, AFTER conversation had 3 Story. Macro-structure shows that our conversation became a little more consistent than BEFORE.

F8	In terms of the overall structure of the conversation, I think we could talk about many topics and deep into each story. When we were talking, we thought about the structure of story, so we enjoyed taking conversation!
F4	This result shows that I was talking a lot about each story in after conversation. In before conversation, there was not very much content, the conversation was like a tennis rally. However, we could talk a lot in after one, the conversation was like a basketball.

6. Conclusion

This was a pilot study of the teaching methodology - the first attempt by the researcher to teach these concepts - and the researcher himself did not analyze each of the 24 conversations. Thus, at this early stage of the project, no great confidence can be placed in the quantitative data as reported by the students. In regard to RQ1 about the features noticed about their conversational skills, it is clear from the written reflections that a great many adjustments were made to the AFTER conversations on the basis of the data from their BEFORE conversations. That said, while there were no doubt students that analyzed the data with greater accuracy than others, the fact remains that there is a large degree of inexperience in the analytical results. However, as mentioned in the introduction, the production of quantitative data showing increases in frequency of particular features, was not the point of the course, nor was it a research question of this paper. In regard to RQ2 and whether or not the course was beneficial, the over-riding goal was to teach conversation in such a way so as to assist the students to become more aware of their language usage and their conversation management skills, and by doing so, hopefully lead them to adapt their skills as needed. It is clear that each of the 24 students in this pilot project noticed at least one feature that they adjusted. In fact, it is possible to say that most noticed multiple features. Therefore, on the basis of the results, the course has been adjudged successful in raising the students' consciousness of the features of conversation and their own performances. Finally, since this paper was written, three more cohorts (i.e., another 76 students) have undertaken subsequent iterations of the course. In these later versions, the researcher-teacher has adapted particular aspects of the content, and how it is taught. Additionally, the comparison and reflection report survey document has undergone a transformation to include more specific questions about the features they noticed, as well as the students' confidence levels in their English conversation ability. It is hoped that this data will generate greater support for the teaching methodology and the findings of this pilot research project.

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Appendix

Name: _____

Number: _____

COMPARISON of BEFORE and AFTER CONVERSATIONS

Word Count

In terms of Word Count, in the AFTER conversation (*e.g. 207 WC), I increased my output by *e.g. 76 words from the BEFORE conversation (*e.g. 131 WC). This represents an increase of *e.g. 58% in terms of the contribution, I made in the AFTER conversation.

This results shows that....

An interesting result was....

Thus, in terms of Word Count, I am very happy / unhappy / disappointed / slightly disappointed / satisfied with these results because.....

Interacts

The analyses of Interacts in the BEFORE and AFTER conversations, show that I increased /decreased my use of,,, (see your results to do with 'Information Seek, 'Information Provide' etc.

This result shows that

An interesting result was....

Thus, in terms of Interacts, I am very happy / unhappy / disappointed / slightly disappointed / satisfied with these results because.....

Exchanges

The analyses of Exchanges in the BEFORE and AFTER conversations, show that I increased / decreased.... Initiations (I)..... Payback-Initiations (PBI),Follow-up Information (RFI and FI)....

This result shows that

An interesting result was....

Thus, in terms of the ROLES I played in the Exchanges, I am very happy / unhappy / disappointed / slightly disappointed / satisfied with these results because.....

Stories

In terms of stories, in the BEFORE conversation, I told / didn't tell.....

On the other hand/In the AFTER conversation, I told / didn't tell

I am very happy / unhappy / disappointed / slightly disappointed / satisfied with these results because.....

Macros-structure (pair)

In terms of the overall structure of the conversation, I think we.....

SELF-EVALUATION score:

(a) I rate my understanding in this class at 5/5, 4/5, 3/5, 2/5, 1/5 because.....

(b) I rate my effort in this class at 5/5, 4/5, 3/5, 2/5, 1/5 because.....

Virtual Laboratories In Kazakhstan: Current State, Comparative Analysis, Problems And Development Prospects

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ABSTRACT

At the present stage of ICT development, it is obvious that digital technologies have become frequently used in the life and professional activities of teachers. Virtual laboratories more often are being used by teachers of various subjects.

Our research was aimed at studying the readiness of teachers to use virtual laboratories in their teaching activities. The survey of secondary school teachers allowed us to highlight the following results: there is a significant relationship between learning and the introduction of digital technologies in teaching practice, as well as the use of virtual laboratories and the pedagogical competence of teachers in the use of digital technologies. The results obtained indicate that the readiness of teachers to use virtual laboratories in their pedagogical activities is interconnected with the growth of pedagogical competence and digital literacy of teachers. The further growth of the digitalization of education and its improvement makes the use of virtual laboratories promising.

KEYWORDS: information and communication technologies, virtual laboratory activities, modern educational technologies, training in Kazakhstan.

INTRODUCTION

The widespread use of computer and information technologies contributed to the entry of the world economy into the digitalization era. Digitalization, which Kazakhstan has embarked on, is one of the leading trends in the process of reforming the education sector. The process of introducing digital technologies has become an integral part of the educational process in Kazakhstan. The education digitalization reform consists in equipping educational institutions with high-quality software, such as information systems that allow access to educational resources, the results of modern scientific research and development, and electronic scientific libraries in various languages of the world.

Online textbooks, a cloud learning system, virtual laboratories, a personal ID for each student, open educational content - all this awaits the education of Kazakhstan in the nearest future.

The powerful growth of information potential, high-speed access to the latest science and technology achievements, the spread of intelligent tools for information search and its processing leads to a change in the technology and content of education. First of all, the goals and content of education are changing, the educational process is being improved [1].

The dynamics of change, which set the task of teaching something that does not yet exist, but that which tomorrow will become the leader in one or another sphere of life, requires the formation of special conditions for the learning organization.

In Kazakhstan, the digitalization process is one of the key vectors for the development of the educational process and is implemented as part of the Digital Kazakhstan program [2].

For the Kazakh education system, the widespread introduction of distance learning is the most UpToDate goal. The main goal of its implementation is to ensure equal access of all participants in the educational process to the best educational resources and technologies [3].

Kazakhstan, adopting the experience of colleagues, is implementing some projects that involve the use of modern technologies in education. In Kazakhstan, there is also a single platform with electronic educational content BILIMLand.kz, created in 2014. This system is used not only by students of schools and colleges, but also by children of preschool age. Educational resources are presented in three languages (Kazakh, Russian and English). Resources are available both online and offline. More than 1 million multimedia material has been proposed for most school subjects. It is planned to further enrich the interactive content of the BILIMLand platform [4]. A virtual laboratory "Gene Engineering - Chromosome Laboratory" has been created, where complex processes and phenomena in the specified field of knowledge are studied [5]. Attempts are being made to use a biological virtual laboratory and develop methods for its use in the learning process [6, 7, 8].

The impact of the digitalization process on the education system and the active search for new teaching methods are being studied in the Kazakhstan scientific community. Teachers believe that the introduction of information technologies into the educational process will be justified if they effectively complement existing teaching technologies or have additional advantages compared to traditional forms of education [9].

Kazakh specialists raise problems and analyze such aspects as modern innovative technologies and the digital revolution, foreign experience in the field of creating a modern digital economy, damage from distance learning under quarantine and other areas [10, 11]. As conclusions in the analytical studies of Kazakhstani authors, the university model of online education was presented in terms of maintaining competitiveness in a new technological era [12, 13].

In the analytical review of another Kazakh expert Cherkashin R., the problem of social inequality that takes place in modern conditions of applying technological innovations in the educational process is acutely posed. The expert analyzes the conclusions drawn from the World Bank report that such a problem exists in a number of Central Asian countries, and the COVID-19 pandemic and the resulting shift to distance education have exacerbated the problem of inequality [14].

Sailau, K., and Ramazanova, A. focused their research on the degree of satisfaction with the distance education system among students, parents and teachers [15]. A special place in the studies of Elubay E.K et al. is given to improving the digital literacy of teachers [16].

The work of Kenzhebaeva Z.S. et al. is devoted to the analysis of international experience in the implementation of digital education. [17].

It is worth noting that new technologies and resources introduced into the process of school education can captivate students much more than simple lectures. One of such resource is virtual labs, which have been used as a complementary learning resource to lab activities for both teachers and students since the early 2000s. There is experience in creating virtual excursions to nature, when students can see seasonal changes in the studied objects in one excursion (for example, an excursion to the forest in autumn, winter and spring) [18].

Kenepoh believes that virtual laboratories are a technology that is being introduced into the education system to improve modern teaching methods [19].

Virtual laboratories provide wide access to the scientific and educational resources of mankind, the creation of maximum conditions for the development of potential, an array of knowledge, regardless of the study place and level of education.

A distinctive feature of the traditional experiment is the study of some biological objects and phenomena, the observation of which is long in time and has little visibility. And here a virtual experiment with good dynamic graphics and sound is the only way to show them visually.

Virtual laboratory work allows a student who missed some topics to fill in the gaps, regardless of the teacher presence at the workplace, to complete it at the time when it is being done at an educational institution, but while being at home. This type of laboratory work allows you to independently consider those phenomena and objects that are categorized for independent study. Also, an independent home virtual experiment is a help in studying theoretical material in the classroom.

In addition, virtual laboratories are the most important computer simulation used to study the natural sciences [20]. It has been defined as “a programmed laboratory experiment using a computer to simulate operations in a real laboratory, which helps students to easily find the connection between theoretical and practical aspects” [21].

An analysis of remote and distance learning usage has shown the adaptability of such learning platforms to overcome the limitations of classroom learning and use virtual labs as the next generation interactive textbook for blended and distance learning [22].

In discussions about the effectiveness of virtual education, supporting arguments come from the fact that modern virtual learning is approaching individual in many respects. This is a virtual presence in the classroom at a webinar, and multimedia and interactive course content, the execution of practical tasks of any complexity on virtual machines [23]. N.B. Auzhanova believes that the use of virtual laboratories is justified by stimulating motivation and interest in the subject being studied, the impossibility of conducting laboratory work in the office and the small amount of time allotted for a distance lesson [24]. The use of virtual laboratory work is advisable not only in case of emergencies, with distance learning, but also when working with students who do not attend classes for a long time for various reasons [25]

Favale, T., et al. [26] and Vasiliadou, R. [27] found that teachers consider virtual labs to enhance their teaching skills and help students complete lab practices without sacrificing learning quality.

Virtual labs replace the teaching and demonstration phase of conventional labs, reducing reliance on instructions more effectively. Research has reported how virtual labs catalyze student approaches to offline learning and self-learning in blended classroom settings. The use of virtual labs in procedural and conceptual learning has proven the ability of students to improve their problem solving and analytical skills. An interactive user platform in virtual labs provided students with the satisfaction of learning laboratory skills by combining theory and practical approach [28, 29].

Using the experience of abroad colleagues and under realization of state Digital Kazakhstan program (12.12.2017) [2] local biology teachers started to use virtual labs for education goals achievement [30, 31].

In teaching practice, there are various options for using virtual laboratories in the classroom (Fig. 1) [32].

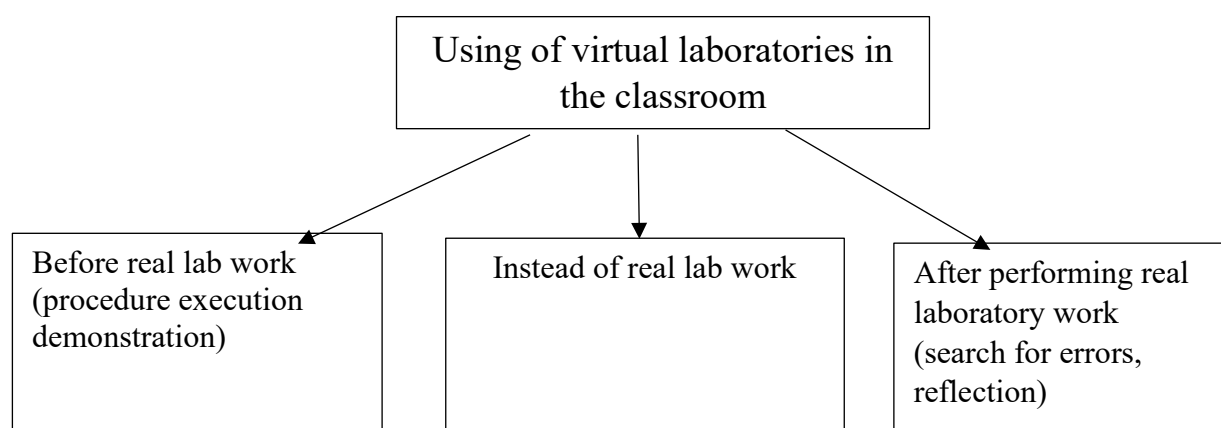


Figure 1: Options for using virtual labs in the classroom

The effectiveness of information technologies usage in education largely depends on how methodically and pedagogically competently their inclusion in the structure of the learning process is justified. In each specific case, the teacher independently has to determine the purpose of using information technology tools of various digital educational resources in accordance with the topic of the lesson, the objective need to apply the appropriate methodology and the complexity of the material presented. This requires work experience, special knowledge and skills in the application of such technologies and resources [33].

Whatever option the teacher chooses to work in a virtual laboratory, virtual laboratory work helps to increase students' interest in the subject. Among other things, it is assumed that virtual laboratory work has the potential to become one of the foundations for the development of independence and critical thinking of pupils [34].

However, despite the obvious advantages in the use of virtual laboratory work in the classroom, some teachers do not use such an educational resource in their activities.

Thus, there is a contradiction between the Government expectation to education and the teachers' readiness to use digital technologies in the form of virtual laboratories.

The purpose of our study is to study the readiness of teachers to use virtual laboratories in teaching activities.

MATERIALS AND METHODS

The study was conducted amidst 25 secondary school teachers in the Pavlodar region (Republic of Kazakhstan). Two questionnaires were used to achieve our research goals. The first questionnaire was developed by us and contained five questions. Its purpose was to identify what digital resources and devices teachers use to conduct the educational process, and how often they use them, i.e. we wanted to find out how competent the teacher is in the use of digital technologies. The respondent was required to answer the question and give one of three suggested answers: "never", "occasionally", or "regularly". For the answer "never" 0 points were assigned, for the answer "occasionally" - 1 point, for the answer "regularly" - 2 points. The conclusions were made on the basis of the points scored as a result of the questionnaire.

The second questionnaire was aimed at identifying the readiness of teachers to use digital technologies in the educational process actively. The basis for identifying the readiness of teachers to use digital technologies is the described European Digital Competence Framework for teachers (DigCompEdu), which includes 22 competencies grouped into six blocks [35].

Block 1: Professional responsibilities

Block 2: Digital Resources

Block 3: Teaching and learning

Block 4: Student Assessment

Block 5: Empowering students, providing opportunities, and independence in the learning process,

Block 6: Development of digital competence of students

Competencies correspond to six levels of pedagogical experience in the use of digital technologies: Newcomer, Explorer, Integrator, Expert, Leader and Pioneer.

The distribution into groups is based on the points scored as a result of passing the questionnaire. Based on the total points scored, each respondent was assigned to one of 6 groups. Group assignment rule (in points out of 88 possible):

0–19 Group A1 Newcomer

20–33 Group A2 Explorer

34–49 Group B1 Integrator

50–65 Group B2 Expert

66–80 Group C1 Leader

81–88 Group C2 Pioneer

All results for the two questionnaires were entered into the SPSS Statistic 26.0 program and a correlation analysis was carried out in order to identify significant relationships.

RESULTS AND DISCUSSION

Teachers with different teaching experience and different levels of computer and information technology proficiency took part in our study.

As we can see from the results of the study shown in Figure 2, most often teachers use digital resources such as word processing (for example, Word), Internet browser (for example, Google Chrome. Mozilla), email, video conferencing (Google meet, zoom) presentation software. For this purpose, a projector, a teacher's computer and an interactive whiteboard, as well as students' mobile devices are used. In addition, the use of video conferencing remains very limited. The use of virtual laboratory work does not occur. Most teachers consider themselves competent in the use of digital resources and are sufficiently trained in this area.

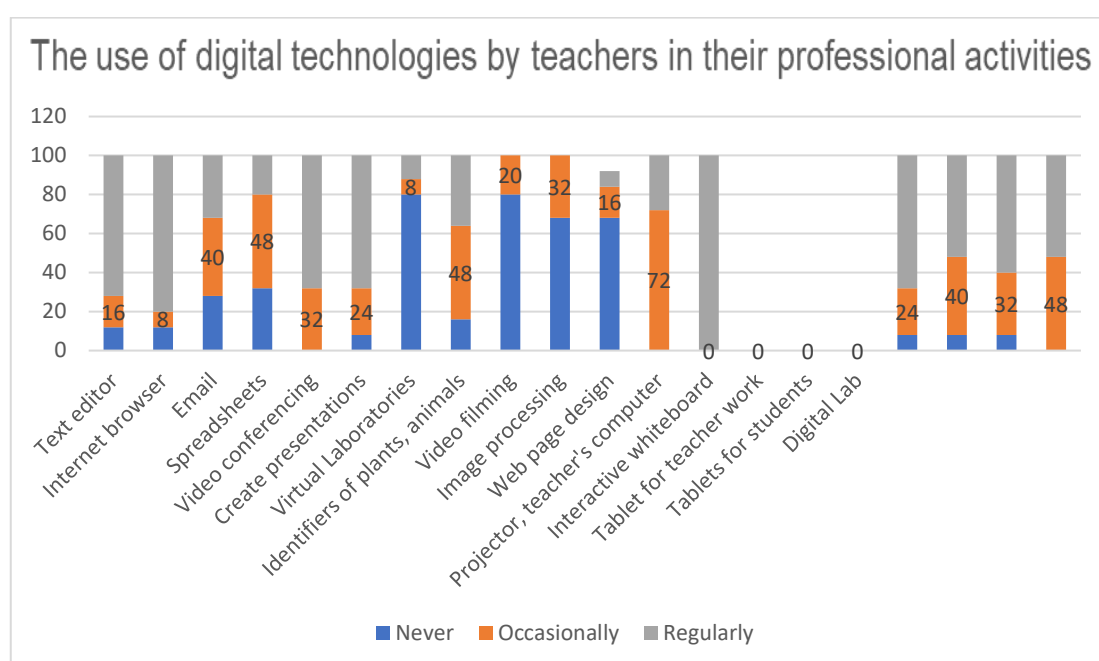


Figure 2: The use of digital technologies by teachers in their professional activities

An analysis of the readiness of teachers and lecturers for the active use of digital technologies in the educational process showed that all teachers participating in the study belong to different groups in terms of the degree of mastery of digital technologies and their readiness to actively use them in the educational process (Table 1, Figure 3).

Table 1 The readiness of teachers and lecturers for the active use of digital technologies in the educational process

Points	Name of the group	Number of people (%)
0–19 group A1	Newcomer	2 (8%)
20–33 group A2	Explorer	11 (44%)
34–49 group B1	Integrator	8 (32%)
50–65 group B2	Expert	3 (12%)
66–80 group C1	Leader	1 (4%)
81–88 group C2	Pioneer	0

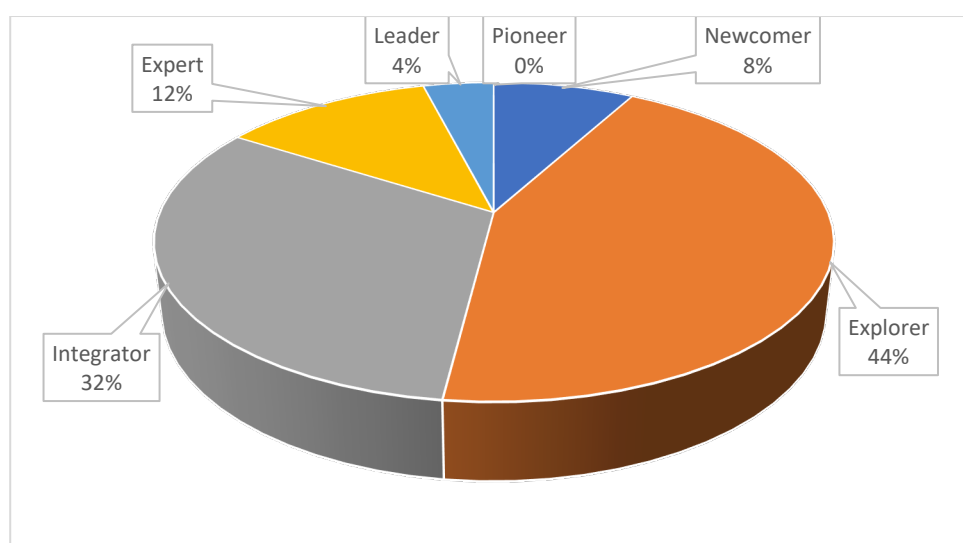


Figure 3: The readiness of teachers and lecturers for the active use of digital technologies in the educational process

All the results obtained for the two questionnaires were subjected to correlation analysis in order to identify significant parameters and relationships. Significant two-way significant correlations were obtained, which are shown in Table 2.

Analyzing the obtained correlations, we see that there are significant features of the use of virtual laboratories. So the ability to use image processing programs, e.g. Photoshop, is important in using of virtual labs. Another important aspect of the use of virtual laboratories is the level of digital technology proficiency, i.e. a teacher who does not have such skills will not be able to use virtual laboratories in their activities. The next feature of the use of virtual laboratories is the level of pedagogical competence in the use of digital technologies, i.e. a teacher with a low level of pedagogical competence will not be able to work correctly with virtual laboratories. An important aspect of the use of virtual laboratories is also the general level of digital technology proficiency, i.e. having no idea about such a digital resource as a virtual laboratory, respectively, and does not own digital technologies and cannot be ready to use virtual laboratories in their pedagogical activities.

Table 2 Correlation significant relationships

Communication parameters	r	p
between word processing (e.g. Word) and email usage	,419*	P< 0,05
between e-mail usage and video conferencing (Google meet, zoom ...)	-,454*	P< 0,05
between email usage and digital proficiency	-,465*	P< 0,05
between the using of virtual laboratories and image processing (e.g. Photoshop)	,473*	P< 0,05
between the use of virtual laboratories and the level of digital proficiency	,424*	P< 0,05
between the use of video conferencing (Google meet, zoom ...) and pedagogical competence in ICT	,468*	P< 0,05
between word processing (e.g. Word...) and the use of presentations, virtual labs	,742**	P< 0,01
between word processing (e.g. Word...) and pedagogical competence in the application of digital technologies	,742**	P< 0,01
between word processing (e.g. Word) and digital proficiency	,597**	P< 0,01
between the use of virtual laboratories and pedagogical competence in the application of digital technologies	,606**	P< 0,01
between the use of virtual laboratories and the level of digital proficiency	,575**	P< 0,01
between the use of video conferencing (Google meet, zoom ...) and the level of digital proficiency	,704**	P< 0,01
between image processing (e.g. Photoshop...) and digital proficiency	,567**	P< 0,01
between pedagogical competence in the application of digital technologies and the level of proficiency in digital technologies	,729**	P< 0,01

Thus, from the results of the study, we can conclude the following:

1 The process of introducing digital technologies is an integral part of the educational process in Kazakhstan.

2 The use of virtual laboratories in teaching activities contributes to the improvement of knowledge in the field of digital technologies.

3 The use of virtual laboratories depends on pedagogical competence in the application of digital technologies in the educational process.

4 The willingness of a teacher to use virtual laboratories in their activities depends on the level of digital technology proficiency in the educational process.

CONCLUSION

The study carried out in the work shows that the use of digital technologies and, in particular, virtual laboratory work has a direct impact on the content and forms of teaching in the classroom.

The increase in the use of virtual laboratories in the learning process contributes to the growth of pedagogical competence in the field of digital technologies and the readiness of teachers to actively use them in the educational process. The use of virtual laboratory work is a comprehensive way to develop digital technologies and the competence of a teacher, increase their level of proficiency and, as a result, increase the willingness and ability of teachers to develop in the field of digital education. Therefore, in order for teachers to use virtual laboratories in their activities, it is necessary to increase their ability to learn how to work with this digital resource and improve their competence. Virtual Labs enhance teaching skills and help students complete digital labs without compromising the quality of their learning. And this fact suggests that the use of virtual laboratories in the educational process is promising.

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