Volume 10, Nomor 1, Tahun 2022 E-ISSN: 2621-5101 P-ISSN:2354-7294

NEEDS ANALYSIS AS THE CORNERSTONE OF THE DESIGN AND DEVELOPMENT OF ONLINE LANGUAGE LEARNING

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Abstract

The advent of sophisticated technology in the last decades and the sudden shift from face-to-face learning to online learning due to the Covid-19 attack in 2020 had led to the proliferating design and development of online language learning worldwide. Given the myriads of possible configurations within online learning, careful decision making in the design of the content and the selection of technology and media that count the students' needs and conditions should be at the central attention of the developers to accommodate the students' needs and to avoid developing ineffective and unproductive online learning. This study aims at analyzing the needs of the students in the online English language learning at the Intensive Foreign Language Learning Program, Alauddin State Islamic University, Makassar. This study used developmental research. Purposively sampled, 70 respondents participated in this study including 50 students, 10 lecturers, and 10 graduates. Two types of information were analyzed namely the students' language learning needs and the students' perceptions of technology and media for their online learning. The findings of this study are important for two reasons i.e. firstly, it can be the basis for developing sound online language learning that puts the learners' needs and conditions as the central basis in the program, considering the absence of any research-based online learning there. Secondly, The procedure of conducting needs analysis demonstrated in this study can be useful guidance for those aiming at doing needs analysis in the digital learning context.

Keywords: needs analysis, online language learning, educational technology.

INTRODUCTION

The design and development of online, blended and flipped language learning have been very pervasive worldwide (Russel & Murphy-Judy, 2021). Along with the flourishing growth of the virtual K-12 schools and the proliferation of online courses at the community college and university levels in recent years (Allen, J. Seaman, Poulin, & Straut, 2016), there have been profound changes in how courses and programs are designed (Kanuka, 2008) made possible by technological advancements such as the sophisticated multimedia applications and online venues (Pegrum, 2009). Impressive growth in research related to computer-assisted language learning that shifted from cognitive tradition to sociocultural turn signified a progressive development in the integration between technology and language pedagogy (Johnson, 1999; Reeves, 2006; Davies, Otto, & Rüschoff, 2013). The demand for a more intensified digital intervention in education is getting stronger with the wake of COVID-19 at the end of 2019 which had dramatically prompted a sudden shift from face-to-face learning toward online learning in 186 countries (UNESCO, 2020). The platforms such as Moodle, Zoom, Google Classroom, Blackboard, Edmodo, Canvas, and many more have been used to orchestrate learning in the virtual environment. Both the speed of the technological advancement and the wake of COVID-19 had left no space for ignorance to the technology in education, particularly in

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language teaching, if we are envisioning innovative language teaching that follows the trend of the 21st century.

Massive production and development of software, courseware, tasks, websites, online courses, programs, and learning environments offer a wide range of options for language educators in teaching a language online. The cutting-edge networked multimedia microcomputer with access to the internet and the World Wide Web allows interactive and collaborative learning for reading, writing, listening, speaking, and culture (Davies, Otto, & Rüschoff, 2013). The recent advances of Web 2.0 online communication allow highly leveraged 'telecollaboration' with synchronous communication and multimodal exchanges (O'Dowd, 2013). With the changing social order in the middle of the information age (Hasyim, et al., 2021), social media interestingly offer authentic language learning that breaks through the domain of second language acquisition, emphasizing the social presence in language learning (Meskill & Quah, 2013). Both verbal and non-verbal conversation on social media provides an interesting authentic task opportunity (see Arafah & Hasyim, 2019; Arafah, Jamulia. & Kaharuddin. 2020). With careful design, mobile-assisted language learning opens up an engaging language learning opportunity for learners (Butarbutar, et al., 2021; Stockwell, 2010, 2013). Artificial intelligence can be used to teach writing skills (Kaharuddin, 2021) Interestingly, the advent of digital games intensifies the game-based language learning that is potential to provide language learning opportunity which is both experiential and discovery, as well as entertaining and pedagogical (Lai, Ni, & Zhao, 2013).

Given the broad range of possible configurations offered by technology to language education, it is vital to design online language learning that meets the needs and conditions of the target learners. Learners and their learning are the driving force behind teaching, whether face-to-face, hybrid, or online. The decision in regards to the selection of approach, instructional techniques, content, methods of assessments, media, and other equipment should be heavily determined by taking into account the students' needs and research-based teaching and learning principles (see Johnson, 1999; Seedhouse, 1996; Park, 2021). To design the most appropriate online course means to transform students learning needs and context into the most suitable technology and teaching methods. Conversely, designing online language learning without considering the needs of the target students will potentially result in inappropriate and unsuitable designs that ignore the students' learning needs and their readiness to use technological aids, leading to ineffective online language learning.

In this regard, to make informed and robust decisions that will lead to effective online, blended, or flipped learning, a needs analysis is vital to carry out. Needs analysis is a process of discovering learners' voices and choices in regards to their learning which subsequently will be used for adjusting the most appropriate learning for them. To 'customize instruction', information about learners' learning needs, wants, and difficulties are pivotal (Casper, 2003). This is not only fundamental in face-to-face classroom instruction, but also in designing online classrooms (Seedhouse, 1996; Park, 2021). Needs analysis paves the way to the informed decision in designing a sound online language learning for the learners which is fundamentally based on their specific needs. The selection and use of instructional techniques and methods of organizing student assessment need to include explicit consideration both of student needs and issues related to teaching and learning in cyberspace (Johnson, 1999).

An effective needs analysis for online language learning is the one that reflects the information needed to realize effective online language teaching principles. Russel & Murphy-Judy (2021) argued that an effective online language teaching emphasizes the teachers to pose 'knowledge of pedagogy and online language pedagogy' which can be

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defined as the integration of three broad spectrums of knowledge i.e., language pedagogy (knowledge about how to teach language), online pedagogy (knowledge about how to teach online), and pedagogy for educational technology (knowledge about how to use education technologies to address online language teaching)(Russel & Murphy-Judy, 2021). Thus, to harness the 'knowledge of pedagogy and online language pedagogy' in online language delivery, it is vital to initially know the needs and conditions of the learners about their language learning and technology. Learners' perspective toward their linguistics and learning needs is vital in adjusting the appropriate language teaching approach, methods, and techniques (related to the 'language pedagogy'), while learners' information regarding their preferred learning media, communication types and available devices is paramount in designing and developing the right technological supports in the online language learning.

There is a link between the needs analysis and the technology and media analysis. Several designs and development models such as the ADDIE model, Alessi and Trolip (2001), and Instructional Systems Design (Khlaif, 2013) propose to undertake learner analysis i.e. analysis to know students' needs and problems, and technology and media analysis i.e. analysis to know the suitability and constraints of technology and media to facilitate the learning (they use differing terms, but in essence they are similar). In analyzing the technology and media, it is important to put the learner's needs as the basis of assessing the usability and measuring the constraints of the technology and media (Russel & Murphy-Judy, 2021). Educational technology and media bring their functions which lead to differing approaches to learning and they reflect various Bloom's digital taxonomy (Kharbach, 2020). Choosing ones that can assist learners to learn best based on their preference and need is essential. Besides, the availability of technical resources to learners is also vital (Russel & Murphy-Judy, 2021). We need to make sure that they have the access to the technical support that will be used in the learning to provide inclusive learning that also considers the issue of the digital divide. Knowing the availability of their devices can help the teacher or course developer to anticipate the most appropriate and accessible technological aids to the students. Students' readiness and competence to operate the technological resource should also be taken into account before determining the fixed choices on these media (Russel & Murphy-Judy, 2021). Thus, understanding the learners' needs and conditions will lead to a student-friendly choice of technological use.

This study aimed at conducting a needs analysis that gauged both students' learning and linguistics needs in learning English, and their condition and preference regarding technological support for online language learning. A materials development model namely the IDOL model (Arafah et al., 2021) was used as the guiding procedure to systematically reveal the learners' linguistics and learning needs. A comprehensively written book by Russel & Murphy-Judy (2021) provides robust guidance to analyze the learners and the availability and constraints of technology and media for online language learning to learners. Some of the extracts of their works combined with other sources (such as Muthuprasad, 2021) were exploited to design the present research. This study is therefore aimed at illuminating the process of conducting needs analysis that paved the way to a grounded understanding about students' needs and preferences in online language learning, particularly in the English course of Intensive Foreign Language Program at Alauddin State Islamic University Makassar, Indonesia. The process of conducting needs analysis as the basis of online language learning demonstrated in this study provides a clear pathway that is important for those interested in designing and teaching online language learning. Moreover, since the Intensive Foreign Language Program had not developed their online language learning support yet and still relied on printed materials that were physically distributed during online

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learning in 2020 which had been perceived ineffective by the learners and teachers, the results of this study can be used as the cornerstone in designing and developing the right course aims, course contents, approaches, instructional design, communication media, level of flexibility for learners' autonomy, how much synchronous, asynchronous meetings are needed, types of authentic tasks that answer the actual needs of the students in learning English online, and as the basis for deciding particular solutions to the students' specific problems in the language program.

LITERATURE REVIEW

Needs Analysis of IDOL Model

IDOL (Arafah, et al., 2021) is a materials development model that provides a framework for developing instructional materials that emphasize the process of needs analysis before its development phase. This model weighs its decision-making on the student-centred considerations using needs analysis. Needs analysis refers to the process of identifying the learner's needs, wants, expectations, and difficulties in learning. Two types of needs are identified by this model namely subjective needs and objective needs. Subjective needs deal with the learners' learning and linguistic background such as their language proficiency, learning difficulties, preferred topics (if the course designer is aiming to develop a topical-based syllabus and materials); this information will be the basis in deciding 'what to teach'. Meanwhile, objective needs can be understood as the learning styles, preferences, and wants of the learners; this information can be used as the basis in determining 'how to teach'. Knowing what and how to teach also requires information about students' difficulties. Several studies have shown that many students, particularly in Asiatic regions tended to be passive learners and less engaged in classroom discussions (Hasjim et al., 2020; Zhou, 2015, Mulyanto, Sujatmiko, & Araha, 2015). These difficulties should be identified earlier in the needs analysis, so the teachers can anticipate the solutions.

In conducting a needs analysis, the IDOL model proposes a systematic way adapted from Brown (1995). The first step is to make decisions in regards to the participants of the needs analysis and the types of information that are going to analyze. This model distinguishes three types of participants namely target group (the ultimate source of information i.e. the students), the resource group (those who will teach using the developed materials i.e. teachers or lecturers), and the audience group (those outside the classroom who are capable of providing information about the target group e.g. parents, graduates, prospective employers). The three groups provide information regarding the learners' needs from their perspectives based on their experience teaching the learners (for the teachers) or joining the same program earlier (for the graduate). Besides, there are two types of needs typically included in the questionnaire that is designed following the IDOL model namely subjective needs and objective needs. Subjective needs are the information regarding students' language proficiency, problems, difficulties, and preferred topics, while the objective needs tell something about the learners' learning styles, preferences, and wants. Both of the needs ideally should be considered in developing the right materials for the learners. The second step is to gather information using the instruments. Brown (1995) proposed some classifications of instrumentation including tests, observations, interviews, questionnaires, and meetings. The third step is to summarize the collected data in the form of need inventory. Need inventory is the summed-up version of the gathered details that can give a clearer portrayal of the overall needs; it is subsequently taken as the cornerstone of the development phase of the materials (Andi & Arafah, 2017).

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Needs Analysis on Learners' Technological Needs

Learners and their learning are the driving force behind online learning (Russel and Murphy-Judy, 2021). Learning achievement in a subject matter, including language, is mainly affected by the student himself (Arafah, Arafah, & Arafah, 2020). With myriads of emerging technological aids that offer different learning approaches and Blooms' digital taxonomy, to design effective online language learning means to accommodate the students' online language learning needs using the most appropriate technological aids. Effective online learning is closely related to how well the content is designed and delivered within an online setting and how responsive the online learning is to the needs of the learners (Muthuprasad et al., 2021).

Thus, it is vital to understand students' voices and choices about their readiness to enter the online learning venue. Effective exploitation of technology based on students' readiness leads to productive learning (Muthuprasad et al., 2021). Warner et al. (1998) described that the concept of readiness for online learning mainly covers three aspects:(1) students' preferred way of instruction delivery; (2) student's competence and trust in operating the internet and computer-based communication; and (3) students' ability to engage in autonomous learning.

In this era where the advancement of technology can no more be ignored (Parera, Iswary & Hasyim, 2020), the effective online class requires several factors including the well-structured course content (Sun and Chen, 2016), competent instructor, sophisticated technologies (Sun and Chen, 2016), and feedback and clear instructions (Gilbert, 2015). Several other studies indicate that the interactivity of course design (Arbaugh, 2000), interaction with course instructions (Hay et al., 2004), flexibility (McCall, 2002), engagement with teachers and peers (Kim et al., 2005), and the technological competence (Wagner et al., 2000). Russel and Murphy-Judy (2021) also argued that is important to identify how diverse the online learners are. Their demographic details will be used as the consideration in designing online learning that promotes equity and provides solutions to the digital divide among the learners. Thus, understanding the learners' needs and conditions will lead to what is so-called 'te(a)chnologies' which can be understood as the 'harmonious blend of sound language teaching and appropriate technologies that promote students learning' (Russel & Murphy-Judy, 2021).

METHOD

Every study should employ appropriate methods both in collecting and in analyzing the data (Hasjim, et al., 2020). As needs analysis is a part of a larger study aiming at developing a prototype of a product or program, this study used the development research design. Van Den Akker (1999) argued that development research design is aimed at providing informative phases of the decision-making process during the development of a particular prototype of a product or program which will lead to both the quality enhancement of the product or program and the professional development of the developers in developing the product of the like in the future situations (Van Den Akker, 1999).

This study was participated by 70 purposively-sampled respondents that fell into three categories namely 50 students (target group), 10 lecturers (resource group), and 10 alumni (audience group) in the Intensive Foreign Language Program at Alauddin State Islamic University Makassar, Indonesia.

This study used questionnaires. To analyze and summarize the statistical data gathered from the questionnaires, the frequency and average of the responses were calculated. The questionnaires were administered in the form of a google form link through WhatsApp groups.

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FINDINGS AND DISCUSSIONS

1. Analysis of Students Need to be Gathered from Questionnaire

The results of the quantitative and qualitative data analyses are presented below.

a. Level of Importance of English skills

No.	Skills	Respondents			$\bar{x}$
		Students	Lecturer	Grads	
1	Speaking	3.80	3.60	3.70	3.70
2	Listening	3.60	3.60	3.70	3.63
3	Reading	3.60	3.60	3.50	3.56
4	Writing	3.56	3.60	3.50	3.55
0 - 1.50 = not important 2.51 - 3.50 = important 1.50 - 2.50 = less important 3.51 - 4.00 = very important					

All respondents seemed to agree that the whole major skills of English were very important. These four skills were rated very important with only a slight difference in average. Speaking was ranked as the skills with the highest importance, indicated from the average of 3.70, followed by listening, reading, and writing skills with the average number of 3.63, 3.56, and 3.55 respectively.

b. Students' Purposes of Learning English

No.	Purposes of Learning English	Respondents			$\bar{x}$
		Students	Lecturers	Graduates	
1	For career	3.48	3.40	3.30	3.39
2	To go abroad	3.30	3.00	3.60	3.30
3	To pursue advanced study	3.30	3.20	3.60	3.36
4	To read English references	3.10	3.20	3.20	3.16
5	For com-munication	3.40	3.40	3.70	3.50
6	To write research	3.15	2.80	3.40	3.11
0 - 1.50 = not important 2.51 - 3.50 = important 1.50 - 2.50 = less important 3.51 - 4.00 = very important					

Adapted from Yassi & Kaharuddin (2018)

It is important to know students' purpose in learning English as it will be taken into account in developing the right ELT materials that will help them achieve their learning goals. The highest average shows that students mostly learn English for communications (3.50). Secondly, learning English for future career were perceived as important with an average of 3.39. Other additional reasons such as to pursue more advanced study, to visit other countries were seen significant enough with an average of 3.36 and 3.30 respectively. Academic-related reasons such as being able to write research reports and read references in English were also important, with averages of 3.11 and 3.16 consecutively.

c. Students' Proficiency Level of English Skills

No	Students' Proficiency Levels	Respondents			$\bar{x}$
		Students	Lecturers	Graduates	
1	Speaking	1.80	2.00	1.60	1.80
2	Listening	1.80	2.50	1.70	2.00
3	Reading	2.25	2.40	2.10	2.25
4	Writing	2.25	1.70	2.10	2.01
5	Vocabulary	1.90	2.20	1.60	1.90
6	Grammar	1.81	1.90	1.60	1.77
0 - 1.50 = very poor 2.51 - 3.50 = good 1.50 - 2.50 = fair 3.51 - 4.00 = excellent					

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Dominantly, the students' weakest skills were grammar with an average of 1.82, and the speaking skills with an average of 1.90, both considered fair. Vocabulary and listening skills were the second-lowest with an average of 2.00 and 2.01 respectively. Writing and reading, based on this statistical data, were rated as the highest skills in the fair classification, with 2.21, and 2.30 average.

d. Perceptions on the Importance of Grammar Topics

No.	Preferred Grammar Topics	Respondents			x̄
		Student	Graduate	Lecturer	
1.	Singular and Plural Nouns	3.55	3.60	3.40	3.51
2.	Countable and Uncountable Nouns	3.40	3.50	3.20	3.36
3.	Possessive Nouns	3.40	3.70	3.30	3.46
4.	Pronouns	3.55	3.20	3.60	3.45
5.	'Be' Verbs	3.40	3.70	3.70	3.60
6.	Action Verbs	3.45	3.70	3.20	3.45
7.	Adjectives	3.40	3.70	3.60	3.56
8.	Comparative and Superlative	3.40	3.60	3.30	3.43
9.	Adverbs	3.40	3.70	3.40	3.50
10.	Prepositions	3.35	3.60	3.30	3.41
11.	Articles	3.32	3.70	3.20	3.40
12.	Interjections	3.30	3.50	3.00	3.26
0 - 1.50 = not important 2.51 - 3.50 = important 1.50 - 2.50 = less important 3.51 - 4.00 = very important					

Adapted from Yassi & Kaharuddin (2018)

Generally, all grammar components presented here are important as they are interrelated and share equally important functions in the construction of sentences. However, based on the perspective of the respondents, which derived from their understanding of grammar, the most important grammar topics were 'Be' Verbs, adjectives, plural and singular nouns, with averages of 3.60, 3.56, 3.51 respectively. The remaining topics were considered important, ranging from 3.46 to 3.26 on average.

e. Perceptions on Grammar Learning Approaches

No.	Grammar Learning Preferences	Respondents			x̄
		Student	Graduate	Lecturer	
1	Deductive approach	3.20	3.20	2.80	3.06
2	Inductive approach	3.15	3.40	3.10	3.21
0 - 1.50 = not important 2.51 - 3.50 = important 1.50 - 2.50 = less important 3.51 - 4.00 = very important					

Widodo (2006)

With a slight difference in average, both approaches were categorized as important. The respondents opted for inductive approach (lecturer assists learners in realizing their unconscious awareness about the English grammatical structures and makes them conscious about it) as their most preferable grammar teaching with an average of 3.21, followed by the deductive approach (lecturer offers an explicit presentation of the grammatical rule) with an average of 3.06.

f. Perceptions on Vocabulary Learning Methods

No.	Vocabulary Learning Preferences	Respondents			Average
		Student	Graduate	Lecturer	
1	Using Multimedia	3.40	3.70	3.40	3.50

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2	Memorizing vocabulary	3.45	3.20	2.80	3.15
3	Pushed output	3.40	3.40	3.40	3.40
4	Using glossary in reading a text	3.10	3.30	3.00	3.13
5	Using media to express new vocabulary (e.g. captioning an image, etc.)	3.20	3.30	3.30	3.26
6	Using games	3.20	3.40	3.50	3.36
7	Digital field trip (reading and comparing vocabulary from several texts from different websites on the same topic)	3.15	3.40	2.70	3.08
0 - 1.50 = not important 2.51 - 3.50 = important 1.50 - 2.50 = less important 3.51 - 4.00 = very important					

Adapted from Khiyabani et. al. (2014)

Learning vocabulary using multimedia (text, audio, video, graphics, animation, and interactivity) was seen as the first highest priority of all respondents, with an average of 3.50, indicating importance. Secondly, pushed output and learning vocabulary using games were in the second top preferable methods with the average of 3.40 and 3.36 consecutively, classified as important. Other remaining methods were also classified as important ranging from an average of 3.26 until 3.08.

g. Perceptions on the Preferred Online Class Format

No	Online Class Format	Respondent			$\bar{x}$
		Student	Graduate	Lecturer	
1	Live online classes	3.14	2.60	3.30	3.01
2	Recorded live classes	2.90	2.80	2.90	2.86
3	Video materials uploaded in any online platforms	3.14	3.40	3.50	3.34
4	Reading materials	2.96	2.70	3.20	2.95
0 - 1.50 = not important 2.51 - 3.50 = important 1.50 - 2.50 = less important 3.51 - 4.00 = very important					

Adapted from Muthuprasad et al. (2021)

The most preferred online class format was video materials uploaded on any online platform with an average of 3.34, classified important. The second most desirable format was live online classes with an average of 3.01, classified important. Sending reading materials was also regarded as important with an average of 2.95. The least opted format was live classes that can be recorded with an average of 2.86, however, classified as important as well.

h. Perception on Students' Online Learning Problems

No.	Online Learning Problems	Respondents			$\bar{x}$
		Student	Graduate	Lecturer	
1	Lack of connectivity	3.10	3.10	3.30	3.16
2	Data limit	3.00	3.00	3.70	3.23

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3	Limited interaction with teacher and peers	3.10	2.90	2.70	2.90
4	Lack of self-discipline	2.55	2.40	2.80	2.58
5	Boredom	2.85	2.80	2.80	2.81
6	Weak social presence	2.81	2.40	2.90	2.70
0 - 1.50 = hardly ever 2.51 - 3.50 = often 1.50 - 2.50 = seldom 3.51 - 4.00 = always					

Adapted from Muthuprasad et al. (2021)

Through online learning, students encounter several problems ranging from technical to psychological issues. The most significant problems felt by the students were the data limit and the connection problem with averages of 3.23 and 3.16 respectively, meaning that they often experienced them. Other significant problems were the limited interactions with teachers and peers (2.90), the boredom (2.81), having weak social relationships (2.70), and the lack of self-discipline (2.58), indicated as often happened.

n. Students' Preferred Communication Media for Class Update

No.	Respondents	WhatsApp		Telegram		Email	
		F	%	F	%	F	%
1	Students	49	98	0	0	1	1
2	Lecturers	9	90	1	10	0	0
3	Graduates	10	100	0	0	0	0
	Total	68	97.14	1	1.43	1	1.43

Adapted from Muthuprasad et al. (2021)

Communication media plays a central role in an online class as it is one of the important elements of electronic materials (see Derewianka, 2014). In this study, most respondents were more comfortable with WhatsApp with a percentage of 97.2%. The remaining 2.86% of respondents opt for telegram and email. In sum, it can be assumed that WhatsApp should be the main communication medium in developing electronic materials.

o. Students' Preferred Electronic Device for Online Class

No.	Preferred Electronic Devices	Respondents						Total	
		Students		Lecturers		Graduates			
		F	%	F	%	F	%	F	%
1	Smartphone	16	32	2	20	0	0	20	25.71
2	Laptop	3	6	1	10	0	0	4	5.71
3	Tablet	1	2	0	0	0	0	1	1.43
4	Smartphone and Laptop	30	60	7	70	10	100	47	67.14

Adapted from Muthuprasad et al. (2021)

Most of the respondents preferred to use both smartphones and laptops (67.14%), while approximately a quarter of respondents were more comfortable with smartphones (25.71%). Other devices were opted insignificantly with only 5.71% and 1.43% respectively for laptops and tablets.

p. Source of Internet Connection

No.	Respondents	LAN		Data		Wi-Fi	
		F	%	F	%	F	%
1	Students	0	0	41	82	9	18
2	Lecturers	0	0	2	20	8	80
3	Graduates	0	0	9	90	1	10
		0	0	52	74.29	18	25.71

Adapted from Muthuprasad et al. (2021)

Students' main source of internet connection was data with a percentage of

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74.29%, while only a quarter of them was equipped with Wi-Fi for their online learning (25.71%).

q. The Preferred Nature of Video Content

No.	Nature of Video Content	Respondents			$\bar{x}$
		Student	Graduate	Lecturer	
1	Video of teaching using PowerPoint	3.70	3.80	3.10	3.53
2	Video of teaching using whiteboard	1.90	1.90	2.10	1.96
3	Video of teaching by lecturing	1.80	1.00	2.30	1.70
4	Animation video	3.10	3.20	3.40	3.23
0 - 1.50 = not important 2.51 - 3.50 = important 1.50 - 2.50 = less important 3.51 - 4.00 = very important					

Adapted from Muthuprasad et al. (2021)

In terms of the nature of the video content, teaching using PowerPoint was regarded as very important with an average of 3.53. The second most preferable video nature was animation video with an average of 3.23, regarded as important. Both videos of teaching using whiteboard and videos of teaching by lecturing were regarded less important with averages of 1.96 and 1.70 consecutively.

CONCLUSION

This study had shed some light on the practical undertaking of needs analysis as the cornerstone of the development of online language learning. Students' needs and conditions on English language learning and technology were investigated, resulting in a needs inventory the results of this study can be used as the cornerstone in designing and developing the right course aims, course contents, approaches, instructional design, communication media, level of flexibility for learners' autonomy, how much synchronous, asynchronous meetings are needed, types of authentic tasks that answer the actual needs of the students in learning English online, and as the basis for deciding particular solutions to the students' specific problems in the language program.

REFERENCES

Alessi, S. M., & Trollip, S. R. (2001). *Multimedia for learning: Methods and development*. Allyn & Bacon.

Allen, I. E., Seaman, J., Poulin, R., & Straut, T. T. (2016). Online report card. *Tracking online education in the United States. Babson Survey Research Group and Quahog Research Group*.

Arafah, B., Jamulia. J., & Kaharuddin. (2020). The Speaking People of South Halmahera Languages: A study on Cultural Relationship. Journal of Talent Development and Excellence, 12(3s), 1331-1340.

Arafah, B., Kaharuddin, K., Mulyanto, M., Arifin, M. B., Rofikah, U., & B Ara-fah, A. (2021). The Idol: An Innovative Model for Designing Literature-Based Elt Materials. *Linguistica Antverpiensia*.

Arafah, B., & Hasyim, M. (2019). Linguistic functions of emoji in social media communication. *Opción: Revista de Ciencias Humanas y Sociales*, (24), 558-574.

Arafah, K., Arafah, A. N. B., & Arafah, B. (2020). Self-concept and self-efficacy's role in achievement motivation and physics learning outcomes. *Opción: Revista de Ciencias Humanas y Sociales*, (27), 95.

Arbaugh, J. B. (2000). How classroom environment and student engagement affect learning in Internet-based MBA courses. *Business Communication Quarterly*, *63*(4), 9-26.

Butarbutar, R., Arafah, B., Marlina Raja Leba, S., Kaharuddin, K., F Sauhenda, A., &

Volume 10, Nomor 1, Tahun 2022 E-ISSN: 2621-5101 P-ISSN:2354-7294

Monika, S. (2021). Using Mobile-Assisted Language to Encourage EFL Learning among Indonesian Learners of English. *Linguistica Antverpiensia*.

Brown, J. D. (1995). The Elements of Language Curriculum; A Systematic Approach to Program Development. Boston: Heinle&Heinle Publishers.

Casper, A. (2003). Needs Analysis. TESOL Volunteers and Service Learning. Retrieved August 10, 2012, from http://linguistics.byu.edu/resources/volunteers/TESOLBYU_NeedsAnalysis.htm

Davies, G., Otto, S. E., & Rüschoff, B. (2013). Historical perspectives on CALL. *Contemporary computer-assisted language learning*, 19-38.

Gilbert, B. (2015). Online learning revealing the benefits and challenges.

Hasjim, M., Arafah, B., Kaharuddin, A., Verlin, S., & Genisa R. A. A. (2020). Principles Behind Semantic Relation between Common Abbreviations and their Expansions on Instagram. *International Journal of Criminology and Sociology*, *9*.

Hasyim, M., Saleh, F., Yusuf, R., & Abbas, A. (2021). Artificial Intelligence: Machine Translation Accuracy in Translating French-Indonesian Culinary Texts. *Available at SSRN 3816594*.

Hay, A., Hodgkinson, M., Peltier, J. W., & Drago, W. A. (2004). Interaction and virtual learning. *Strategic change*, *13*(4), 193.

Johnson, K. E. (2009). Second language teacher education: A sociocultural perspective . London: Routledge.

Johnson, M. (1999). CALL and teacher education: Issues in course design. *CALL-EJ Online*, *1*(2), 4-2.

Kaharuddin, A., & Arafah, B. (2017). Using Need Analysis to Develop English Teaching Materials in Initial Speaking Skills for Indonesian College Students of English. *The Turkish Online Journal of Design, Art and Communication, Special Edition*, 420-436.

Kaharuddin, K. (2021). Assessing the effect of using artificial intelligence on the writing skill of Indonesian learners of English. Linguistics and Culture Review, 5(1), 288-304. https://doi.org/10.37028/lingcure.v5n1.1555

Kanuka, H. (2008). Understanding e-learning technologies-in-practice. *The theory and practice of online learning*, 91.

Kharbach (2020). Bloom's digital taxonomy for the web. https://www.educatorstechnology.com/2016/12/blooms-digital-taxonomy-for-web.html

Khiyabani, H., Ghonsooly, B., & Ghabanchi, Z. (2014). Using multimedia in teaching vocabulary in high school classes. *Journal of Advances in English Language Teaching*, *2*(1), 1-13.

Khlaif, Z. (2013, May). A Heuristic ISD model for designing online courses for higher education in Palestine. In *International Conference on e-Learning Best Practices in Management, Design and Development of e-Courses* (Vol. 4, pp. 226-240).

Kim, K. J., Liu, S., & Bonk, C. J. (2005). Online MBA students' perceptions of online learning: Benefits, challenges, and suggestions. *The Internet and Higher Education*, *8*(4), 335-344.

Lai, C., Ni, R., & Zhao, Y. (2013). Digital games and language learning. *Contemporary computer-assisted language learning*, 183-200.

McCall, D. E. (2002). *Factors influencing participation and perseverance in online distance learning course: A case study in continuing a professional education*. Tallahassee: Florida State University. Unpublished doctoral dissertation.

Meskill, C., & Quah, J. (2013). *Researching language learning in the age of social media*. *Contemporary computer-assisted language learning*, 39-54.

Mulyanto, Sujatmiko, A. H., & Arafah, B. (2021). Factors Affecting the Indonesian EFL Students' Willingness to

Volume 10, Nomor 1, Tahun 2022 E-ISSN: 2621-5101 P-ISSN:2354-7294

Communicate. *The Asian ESP Journal*, 124.

Muthuprasad, T., Aiswarya, S., Aditya, K. S., & Jha, G. K. (2021). Students' perception and preference for online education in India during COVID-19 pandemic. *Social Sciences & Humanities Open*, *3*(1), 100101.

O'Dowd, R. (2013). Telecollaboration and CALL. *Contemporary computer-assisted language learning*, 123-141.

Park, E. (2021). Adopting a Mixed Method Needs Analysis for CALL Research. In *SHS Web of Conferences* (Vol. 102, p. 01002). EDP Sciences.'

Parera, A., Iswary, E., & Hasyim, M. (2020). Pengembangan Media Augmented Reality pada Benda-benda Kebudayaan dalam Prosesi Ritual Pembuatan Perahu Pinisi di Desa Ara, Kecamatan Bontobahari, Kabupaten Bulukumba. *Jurnal Al-Qiyam*, *1*(2), 63-73.

Pegrum, M. (2009). From blogs to bombs: The future of digital technologies in education . Perth: University of Western Australia Press.

Reeves, T. (2006). Design research from a technology perspective. In *Educational design research* (pp. 64-78). Routledge.

Russell, V., & Murphy-Judy, K. (2021). *Teaching language online: a guide for designing, developing, and delivering online, blended, and flipped language courses*. Routledge.

Seedhouse, P. (1996). Needs analysis as a basis for CALL materials design. *Computer Assisted Language Learning*, *9*(1), 63-74.

Stockwell, G. (2010). Using mobile phones for vocabulary activities: Examining the effect of the platform. Language Learning & Technology, 14 (2), 95–110.

Stockwell, G. (2012). *Mobile-assisted language learning*. *Contemporary computer-assisted language learning*, 201-216

Sun, A., & Chen, X. (2016). Online education and its effective practice: A research review. Journal of Information Technology Education, 15

UNESCO. (2020). COVID-19 Educational disruption and response. https://en.unesco.org/ themes/educationemergencies/coronavirus-school-closures.

Van den Akker, J. (1999). Principles and methods of development research. In *Design approaches and tools in education and training* (pp. 1-14). Springer, Dordrecht.

Wagner, R., Werner, J., & Schramm, R. (2002, August). An evaluation of student satisfaction with distance learning courses. In *Annual Conference on Distance Learning, University of Wisconsin, Whitewater, WI*.

Warner, D., Christie, G., & Choy, S. (1998). Readiness of VET clients for flexible delivery including on-line learning. Brisbane: Australian National Training Authority.

Widodo, H. (2006). Approaches and procedures for teaching grammar. *English teaching*, *5*(1), 121.

Yassi, A. H. & Kaharuddin (2018). *Syllabus Design Of English Language Teaching*. Prenada Media.

Zhou, N. (2015). Oral participation in EFL classroom: Perspectives from the administrator, teachers, and learners at a Chinese university. System, 5(3), 35-46.