

Research Article

Designing Android-based Application "Virtual English for Professional Business Graphic Designer (VIRPROGD)" for Virtual English Learning

Dewantoro Lase, Nurianti Sitorus, Widy Sriyanto, Ince Dian Aprilyani Azir

Politeknik Negeri Media Kreatif, Jakarta 12630, Indonesia

ORCID

Dewantoro Lase: <https://orcid.org/0009-0005-0246-6861>

Nurianti Sitorus: <https://orcid.org/0009-0000-8876-9719>

Widy Sriyanto: <https://orcid.org/0000-0002-6538-1540>

Ince Dian Aprilyani Azir: <https://orcid.org/0000-0002-5096-070X>

Abstract.

Technology in education has evolved and accelerated the process of learning. However, even though there have been several applications to study English in general, there is none of it specialized for the students of polytechnic who study graphic design. This study aims to create one such application focusing on the English for English business in graphic design. Android-based application for education should be packaged in an attractive, efficient, effective, and simple way. Thus, an application called "Virtual English for Professional Graphic Designer (VirProGD)" for digital English learning using Android results from this study. The method this research implements is research and development by designing prototypes of the Virtual English for Professional Graphic Designer (VirProGD) application. From this research, an application is obtained that facilitates graphic design students to learn English which focuses on material related to the world of work, design, and business. The final application was validated by three experts and then demonstrated and used by the 5th semester graphic design students at the Polimedia campus. After using the application, validators and students gave their feedback. It was noticed that most of them found this application to be beneficial and attractive.

Keywords: English, Android, digital, application

1. Introduction

The use of technology in studying language is synergic. In teaching, language acts as a medium to convey material, concepts, information that should be earned by the learners [1]. In this digital era, mobile devices, such as phones and tablets are the most ubiquitous digital technology on earth [2] [3]. Using technology in teaching and studying, not only English but also other subjects, has been a great transformation that everyone can experience through the helps of the internet and application [4]. Thus, utilizing application in learning is believed to be more effective because students might

Corresponding Author:

Dewantoro Lase; email:

lase.dewantoro@polimedia.ac.id

Published 7 March 2024

Publishing services provided by
Knowledge E

© Dewantoro Lase et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the JICOMS Conference Committee.

 OPEN ACCESS

download it on their mobile then use the content inside to study everywhere they are. Teaching English for polytechnic students is demanding. It is both for academic and specific purpose [5] [6] [7]. The challenges are not just the strategic uses in delivering the lessons but also in the content and knowledge contains in the media. One of a study done by Xie (2019) exhibited that students in polytechnic in China were limited to the access of studying English outside of the classroom and had difficulties in learning since they lack of motivation and interest [8]. Making materials and media study fit to the students' need is one of the way to solve this problem.

In Indonesia, the urge of blended learning by mixing the online and offline study has been encouraged since the pandemic of Covid 19 in 2021 which forced students to learn remotely [9]. Ever since that outbreak, teachers and learners tried to find the new method to learn English and found that social media and application were the solutions. The use application itself is part of studying English trough mobile assisted language learning (MALL) [10] [11]. As a matter of fact, android-based application is one of the most prevalent nowadays [12]. English for business designer is one of the course targeted for students in graphic design department. However, albeit it is not a main subject, the existence of English has been foreseen to play a big role in accelerating the actualization of graphic designers with high proficiency and are expected to compete in global market. On the other hand, to achieve the previous objectives mentioned, an interactive and engaging source is needed.

Language learning strategy (LLS) activities are utilized by the student to help the procurement, capacity, recovery and utilization of data [13]. One the most notable LLS is by using mobile application which switching the face to face method of studying to hybrid learning process. The growth of information and technology enforces lectures to innovate and produce the contents to help students to learn effectively. For that reason, this study draws the plan of making an application which is android- based for graphic designers student. The resources are include all materials both visual and audio visual which relate to the subjects studied. This is important since the role of learning media and resource is crucial to the teaching and studying process [14]. They can be equipment, materials, activities and circumstance. The research ensures that all sources put in the application are authentic and interesting so that te learners have interest in studying English [15]. The main objective is that to link the knowledge that a lecturer has to the technology that can help students to study effectively. On the other hand, it is not simple. The biggest challenge comes from the low technological mastery that of the lecturers [16]. The application resulted from this research contain materials which covers four skills in English, writing, reading, listening and speaking.

The application produced from this study is android based and can be installed in phone with minimum operation system Oreo 8.0. An android working framework is a working framework for Linux-based gadgets that is open source, including working frameworks, middleware, and applications [17]. This transparency permits software engineers to plan an application and alter the framework. Some of the projects required are IDE (Integrated Development Environment) which is a program having the instrument required in the programming strategy [18][19]. Having this application called *Virtual English for Professional Business Designer* gives the new medium specialized to the students in State Polytechnic of Creative Media particularly those who study Graphic Design. Thus, the final product of this study is independent because it focusing on the English for Business Design. Moreover, unlike other applications, it can be used both online and offline.

2. Material and Methods

2.1. Materials

This research is done by implementing the following steps

2.1.1. Recognize the problems and needs.

This step includes organizing studies and analysing the needs of the syllabus and learning outline in the Graphic Design department.

2.1.2. Collect the data

In this stage, researcher used documentation method by gathering learning materials based on the syllabus by way of relevant references.

2.1.3. Analyse System

It investigates how the application Virtual English for Professional Graphic Designer runs well and can be utilized by users on their mobile phone with the Android 8.1 Oreo operating system.

2.2. Dewantoro Lase^a, Nurianti Sitorus^b, Widy Sriyanto^c, Ince Dian Aprilyani Azir^d

2.2.1. Design System

The system design will elucidate the global account of the database system that is applied with the Mobile Assisted Language Learning (MALL).

2.2.2. Application System

This stage includes setting up the application program that installed on a device and conditionals to the design as well as implements a harmonized system with special algorithm. The way this application runs is by clicking the menu that the users want to open.

2.2.3. Authentication, Trial, Assessment

The authentication and trial are performed by doing observations, distributing questionnaires and interviews. The application itself was validated by two lectures who have expertise in English for Specific Purpose, two instructional media expertise and two computer science expertise. The next step is revising the application based on the critics given from the experts. After that, the students did experiment in using the application to get their responses.

2.3. Methods

Research and Development method is applied in this research by creating digital book which is called Virtual English for Professional Business Designers. It has features that accommodate the properties of practice and convince the users to study from this application [20]. At the end, a prototype for studying English which can be installed in a smart phone is ready to use. The study was done in the Politeknik Negeri Media Kreatif with 32 students as the subjects. The students are in the fourth semester of 2022/2023 academic year. The object of the research is a property of knowledge and skills capabilities collected in the syllabus and curriculum set for Graphic Design students.

3. Result and Discussion

The results revealed the participants' feedback when they are given questions to answer in form of likert scale. The result also revealed the validation from the three experts with average 4.3. In this part, the layout of the application is also provided. The result of this research also strengthens the previous studies which highlighted the use of application in enhancing the students knowledge [21] [22] [23].

3.1. Students' feedback

The researchers asked the students how their responses toward the application. The following are the summary of the results:

3.1.1 It benefits the students to achieve the learning purpose because due to the subjects' two credits, which are regarded insufficient to produce a creative and competitive university graduate in the field of designing, it is advantageous to achieve learning goals.

3.1.2 It accommodates students' needs for an easy tool learning platform that help them to study.

3.1.3 It accelerates the process of digital learning to replace the conventional process in studying English. Moreover, this application brings the benefits such as the easiness of using application to learn English in such educative and entertaining way.

3.2. Validation

To validate the application Virtual English for Professional Business Designer is attainable; the first step is to confirm the feasibility of the application by verifying opinion and suggestion from the experts in the discipline of English, technology and programming. The trial quality resulted from this application are exhibited on a scale of 1-5 with the range below:

$X > 4.2 = \text{Very good}$

$< X \leq 4.2 = \text{Good}$

$2.6 < X \leq 3.4 = \text{Fair}$

$1.8 < X \leq 2.6 = \text{Bad}$

$X \leq 1.8 = \text{Poor}$

TABLE 1: Validation Score of the application.

Score Given by Validator				
No	Aspect	1	2	3
1	Layout/design	4.4	4.4	4.3
2	Resource Value	4.3	4.5	4.3
3	The Trustworthiness of the application	4.3	4.4	4.4
Total		13	13.3	13
The Average		4.3	4.4	4.3

Looking at the average which 4.3 – 4.4, it illustrates that the application Virtual English for Professional Business Designers has had good score in assessment score. However, there are some limitations that need improvements. The Qualitative data from the validators are shown in the table 2

TABLE 2: Validators Opinions and Critics on the application.

Validator	Opinion & Critics	Changing Action
1	The Text in unit 1 is too long	Simplifying the text
2	The background colour for each unit is better to be the same	Adjusting the background colour
3	The font for the grammar part needs to be bigger	Changing the bigger font size

3.3. Students' Respond

After improving the apps, testing and validation stage, it needs to be run to the users to find out the benefits, effectiveness, worthiness, easiness and experiential. The questionnaire is distributed to students in Politeknik Negeri Media Kreatif in Graphic Designers with 40 respondents. The students gave positive response to the application with score 4.3 and it represented very good as illustrated in table 3. As the result, this study is known as a beneficial for the students and at the same time the application brought a positive impact on the studying process. Not only did for the students but also for the former researchers who carried out the study in designing application based android [24] [25].

TABLE 3: The Answers' from Students in using the application The Virtual English for Graphic Designers.

No	Aspects	Average Score
1	The application makes my learning activity be more effective	4.4
2	The application helps me to learn productively in the world of business designs	4.9
3	The application is beneficial to rise my comprehending in English	4.5
4.	The resources in the application relate to my discipline.	4.1
5	The application is time-saving	5
6	The application fulfils my needs in leraning English business for graphic design	4.5
7	The application is trouble-free and experiential	4.9
8	The application needs several stages to get what I want to do in using it	4.5
9	The application can be utilized anywhere and anytime	4
10	I can type in the application so it is basically paperless	5
11	I do not find any incompatible part in this application	5
12	The new users and the experienced one are still favoured by the application	4.5
13	This application is error-free	4.1
14	Once I use this application, I will remember easily on how to use it in the next time	4
15	My skill is upgraded by using this application.	4
16	I feel content with this application	5
17	I do not mind recommending this application to my friends	4.
18	I found this application exciting and fun.	4.4
19	The appication runs the way I expected	4.6
20	The layout of this application is nice	4

3.4. Design Application

In this stage, the compilation of Virtual English for Professional Business Designer is built. Typical application points include the following:

3.4.1. The front page

This page show the main items to start the application

3.4.2. Chapter Menu Page

3.4.3. The Chapters are include of :

Chapter A: “Communication Skill in Working Premises”

Chapter B: “Giving Opinion”

Chapter C: “Talk to Clients”

Chapter D: “Marketing and Selling Strategy”

Chapter E: “Giving Presentation”.

3.4.4. About Menu Page

This page is created to introduce purpose of application and some key points of interest.

3.4.5. Author Menu Page

This page is designed to introduce the creators of the Virtual English for Professional Business Designer application

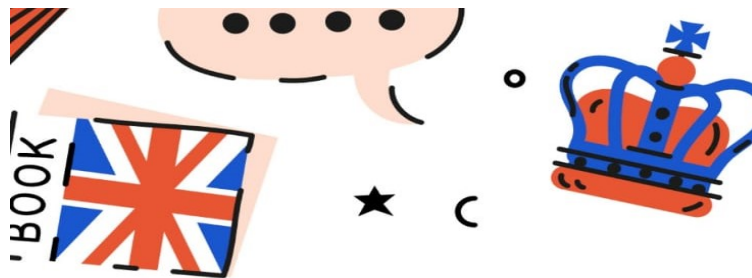
3.4.6. Close menu page

3.5. The Application Performance.

The series of steps to use the application of Virtual English for Professional Business Designer are:

Open menu on your mobile phone

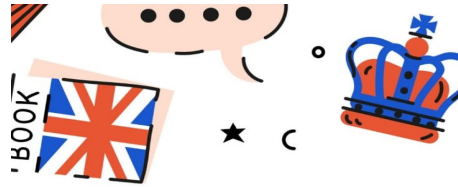
Click the icon of Virtual English for Professional Business Designer



**Virtual English for
Professional Business
Designer**

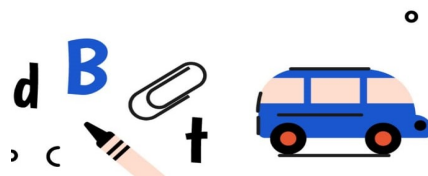
(a)

c. The users will take in the chapter menu page in the application



Virtual English for Professional Business Designer

- CHAPTER
- ABOUT
- AUTHOR



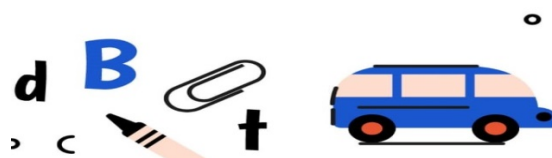
(b)

Click on the chapter to go to each chapter on the application



Chapter Virtual English for Professional Business Designer

- CHAPTER A
- CHAPTER B
- CHAPTER C
- CHAPTER D
- CHAPTER E



(c)

Click the chapter menu to see the provided learning chapters. On this app there are four skills include in each units, those are reading, listening, speaking and writing.

Here are the examples:

Communication Skill in Working Premises

I. Reading

Communication skills are the skills you use to transmit and receive different types of information. Some examples include communicating new ideas, feelings, or even a project update. Communication skills include listening, speaking, observing and empathizing. It is also useful to understand the differences in communication between face-to-face communication, telephone conversations and digital communication such as email and social media. Communication in the workplace is important because it increases employee morale, engagement, productivity and satisfaction. Communication is also key to better teamwork and cooperation. Ultimately, effective workplace communication leads to better outcomes for individuals, groups and organizations.

How to increase your communication skill?

- Ask a close friend or colleague for constructive criticism. It can be hard to know how you are perceived as a

II.b Circle the correct word in bold to complete the rules.

RULES	1. In questions with auxiliaries put do/does/did before/after the subject 2. In questions with be put am/are/is/was/were/ before/after the subject
-------	--

III. Listening

Listen and type down the Questions Form you hear from the audio!

▶ 0:00 / 0:50
⏪ 🔊 ⏩

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

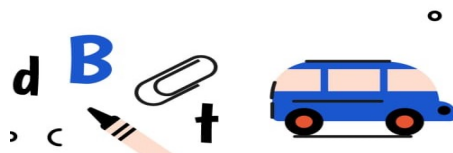
(d) (e)

Click the about menu page to view purpose of application and some key points of interest.



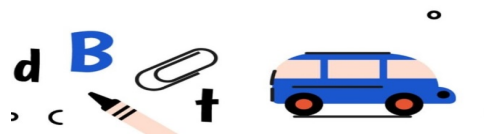
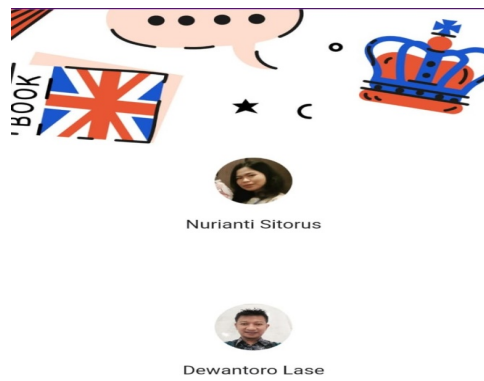
Virtual English for Professional Business Designer

This application aims to provide students sources for learning about english for business in world design. Hopefully this application will help users and students to enrich their knowledge in English.



(f)

Click author menu page to know the creators of this application



(g)

Figure ??.

- (a) The icon of Virtual English for Professional Business Designer
- (b) The front page
- (c) The chapter menu
- (d) the reading materials
- (e) the listening materials
- (f) About Menu page
- (g) The App Creators Page

4. Conclusion

The use of technology in Education is characterized by the use digital source in teaching. As one of the polytechnic which aiming to produce the students with international standard, State Polytechnic of Creative Media needs to alter the digital era in teaching and studying English. One of the ways to do so is by changing the conventional method of learning to the digital one by using an application. The application resulted from this resource is specialized to English for Specific Purpose which focusing on English for Business Designer. This subject objective is to enhance student's skill in English and at the same time transformed the way students study English. The application called *Virtual English for Professional Business Designer* is created to answer the needs of students. This application has been tested and run on the students mobile phone. Moreover, the validation is carried out to see the impact this app had on the users. Not just obtaining the responds from students, this process asked the opinion and critics

from the experts which had proficiency in English, Technology and programming. As for the score, the experts gave 4.3-4.4 which represents very good, and from the students, the average was 4.5 which also showing that this application is very good. Hence, it fulfils the challenge in creating an effective and attractive application to help students in studying English for Business.

Acknowledgements

All the authors are grateful to express our thankfulness to Politeknik Negeri Media Kreatif for the given trust to make this research happen by giving us grant with the number 3374/PL.27.15/PE/2023.

References

- [1] Zygmunt T. Language Education for Sustainable Development. *Discourse and Communication for Sustainable Education*. 2016;7(1):112–24.
- [2] Bernacki ML, Greene JA, Crompton H. Mobile Technology, Learning, and Achievement: Advances in Understanding and Measuring the Role of Mobile Technology in Education. *Contemp Educ*. 2019;60:1–35.
- [3] Mayer RE. Using multimedia for e-learning. *J Comput Assist Learn*. 2017;33(5):403–23.
- [4] Al-Jarf. Reima. Teaching English for Polytechnic Purposes: Guidelines for an Integrated, Communicative Approach. *Journal of English Language Teaching and Applied Linguistics*. 2022. Vol 49 (2), pp. 113-124. , Available at SSRN: <https://ssrn.com/abstract=4134644>
- [5] Utari DA, Sa'diyah A, Ramadani TA, Arfianto AZ, Hasin MK. Enhancing Learning Through Tehnology: Technical English' As an Alternative Tool for Polytechnic Students, *International Conference on Applied Science and Technology (iCAST)*, Manado, Indonesia. 2018. pp. 1-4,
- [6] Dian, Miftachudin & Lusia. Developing “Smart Technical English” To Enhance English Language Teaching In Polytechnic. *Jurnal Penyelidikan Sains Sosial (JOSSR)*, 2020. 3(6), 129 – 138.
- [7] Irshad I, Anwar B. Designing English for specific Purposes course for computer science students. *Journal of Education and Educational Development*. 2018;5(1):156–71.

- [8] Xie Q. Analyzing professional English learning needs and situations of science and language majors in a Chinese university. *Higher Education Studies*. 2019;9(2):141–53.
- [9] Zhou Z. A Systematic Literature Review on the use of Mobile-assisted Language Learning (MALL) for Enhancing Speaking Skills in Chinese EFL context. *International Journal of Frontiers in Sociology*. 2021;3(15):12–24.
- [10] Muzayyanna Zatulifa, MZ and Riswandi, Riswandi and Fitriawan, Helmy and Akla, A. *Application Based Android As A Development Of English Learning Media*. *IOSR Journal of Research & Method in Education (IOSR-JRME)*. 2018. Vol 8 (4). pp. 66-72.
- [11] Sitorus N, Azir ID. Enhancing Students' Reading and Listening Skills by Using Social Media Language Learning (SMLL) Approach through Features on Instagram Verified Accounts. *Ethical Lingua*. 2021;8(2):346–56.
- [12] Shadiev R, Liu T, Hwang WY. Review of research on mobile-assisted language learning in familiar, authentic environments. *Br J Educ Technol*. 2019;:112–23.
- [13] Aini Q, Riza BS, Santosoi NP, Faturahman A, Rahardja U. Digitalization of Smart Students Assessment Quality in Era 4.0. *Int. J. Adv. trends Computer, Science*. English. 2020;9(1):257–65.
- [14] Gan Z. Understanding L2 speaking problems: implications for ESL curriculum development in a teacher training institution in *Hong Kong*. *Aust J Teach Educ*. 2012;37(1):36–45.
- [15] Louhiala-Salminen A, Kankaanranta L. Language as a issue in international internal communication: English or local language? If English, what English? *Public Realtion. Rev.* 2012. Vol 38, no.2, pp. 262-269, 2012, <https://doi.org/10.1016/j.pubrev.2011.12.021>.
- [16] Sim S, Sim H, Quah C. Online Learning: A Post Covid-19 Alternative Pedagogy For University Students. *Asian Journal Of University Education*. 2021;16(4):137–51.
- [17] Zatulifa M. Riswandi, Fitriawan, H., & Akla. *A pplication B ased A ndroid A s A Development Of English Learning Media*. *IOSR Journal of Research & Method in Education*. 2018;8(4):66–72.
- [18] Nurhidayat M. *Jurus Rahasia Menguasai Pemrograman Android*. Jakarta: Alex Media Komputindo; 2018.
- [19] Roshid MM, Webb S, Chowdhury R. English as a Business Lingua Franca: A Discursive Analysis of Business E-mails. *Int J Bus Commun*. 2022;59(1):83–103.
- [20] Jayatilleke BG, Ranawaka GR, Wijesekera C, Kumarasinha MC. Development of Mobile Application through Design-based Research. *Asian Assoc. Open Univ. J*. 2018;13(2):145–68.

- [21] Churiyah M, Basuki A, Dharma BA. Filianti, and D. A. Sakdiyyah, Design Mobile Learning Application with Performance-Based Authentic Assessment as A Remote Learning Tool for Higher Education Why Mobile Learning Application for Higher Students, *Ilkog. Online - Elem. Educ. Online*. 2021;20(3):550–9.
- [22] Sudrajat D, Achdisty M, Kurniasih N, Roslina, Parwito, Mulyati S, et al. The Implementation of innovation in Educational Technology to Improve The Quality of Website Learning in Industrial Revolution Era 4.0 Using Waterfall Method. *J Phys Conf Ser*. 2019;13(64):012044.
- [23] Sari AI, Suryani N, Roohsantiningsih D. The development of Android-based smartphone learning application on teaching reading comprehension, in the *2nd International Confrence on Science*. Volume 020112. Mathematics, Environment, and Education; 2019.
- [24] Fodor AG, Covaci BV. e-Learning Mobile App for Android and ios “English Grammar Learn &Test.”. *Database Systems Journal*. 2016;VII(2):10–8.
- [25] Astra IM, Nasbey H, Nugraha A. Development Of An Android Application In The Form Of A Simulation Lab As Learning Media for Senior High School Students. *Eurasia J Math Sci Technol Educ*. 2015;11(5):1081–8.