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Interactive Multimedia for Teaching Writing Descriptive Text to Junior High School Students

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ABSTRACT

The article projected the outcome of a research and Development (R&D) design on an Interactive Multimedia Computer Application which was implemented to be an English Subject learning module, teaching descriptive texts, for the students at a Junior High School, SMP Swasta Dwi Tunggal, Kota Medan. The App, "Devourlish", is a multi-platform App, capable run-on both Personal computers (PC) and Smartphones; The Google-Play and Apple-Apps Store Ecosystems. The process was formative teaching as the evaluation phases (Analysis, Design, Development, Implementation, and Evaluation) ADDIE of R&D design for the seventh grade, which was conducted in collaboration with the English teacher at the school, highlighted the students' engagement to interactive learning apps and enlisted the students' learning experiences on descriptive texts. The result indicated the apps was very highly practical since the average score in both phases were 3.69 and 3.74 respectively proving learning achievement as the potential effect in term of evaluated formative phases. Additionally, the apps also high potential effect after being tried out in the classroom, which is an application quality control for ADDIE in R&D design, reaching out to 80 % of the students learning achievement. Eventually, the success of the app to facilitate English subject learning experiences the effort to draw the student's interest, to make the "Devourlish" accepted, and to affect ADDIE in an R&D design.

Keywords: Interactive Media, Teaching Writing, Descriptive Texts

Abstrak

Artikel ini memproyeksikan bagian dari output Research and Development (R&D) pada modul pembelajaran Mata Pelajaran Bahasa Inggris dengan Aplikasi Interaktif Komputer, pengajaran menulis teks deskriptif, untuk siswa SMP Swasta Dwi Tunggal, Kota Medan. Aplikasi yang digunakan dinamakan "Devourlish" adalah merupakan bentuk Aplikasi multi-platform, yang dapat dijalankan di Komputer Pribadi dan Ponsel Cerdas; untuk dukungan dalam ekosistem Google-Play dan Apple-

Apps Store. Prosesnya merupakan bentuk dari pengajaran formatif sebagai bagian dari tahapan evaluasi untuk (Analisis, Desain, Pengembangan, Implementasi, dan Evaluasi) ADPIE dari desain R&D pada kelas tujuh SMP, yang juga dilakukan secara bekerja sama dengan guru bahasa Inggris sekolah setempat, menyoroti keterlibatan siswa untuk penggunaan aplikasi interaktif pembelajaran dan meminta pengalaman belajar siswa pada teks deskriptif. Hasilnya menunjukkan aplikasi sangat sangat praktis karena nilai rata-rata di kedua fase adalah 3,69 dan 3,74 masing-masing membuktikan prestasi belajar sebagai efek potensial dalam hal fase formatif yang dievaluasi. Selain itu, aplikasi-aplikasi tersebut juga memiliki potensi efek yang tinggi setelah diujicobakan di dalam kelas, yang merupakan aplikasi quality control untuk ADPIE dalam desain R&D, mencapai 80% dari prestasi belajar siswa. Akhirnya, keberhasilan aplikasi memfasilitasi pembelajaran mata pelajaran bahasa Inggris mengalami upaya untuk menarik minat siswa, membuat aplikasi "Devourlish" diterima, dan meningkatkan hasil uji produk sesuai prosedur ADPIE dalam desain R&D.

Kata kunci: *Media Interactive, Mengajar Skill Menulis, dan Text Deskriptive*

INTRODUCTION

Writing is a productive effort for developing skills, which is considered difficult by some students. Nevertheless, it contributes to academic life, i.e, how to communicate ideas in a written form. The skill becomes a media became elevated and comprehensible into a receptive for language coverage (Kozak, 2022; Rofiqoh et al., 2022; Skar et al., 2022). Within Junior High School, writing skills are concerned with how to compose ideas by aligning sentences into a paragraph, which circulates its topic on students' daily experiences, knowledge, and dreams (Rofiqoh et al., 2022). Therefore, the main objective of teaching writing focuses on having literary and cohesive associations within the following sentences for the structured paragraph.

Nurturing the students' skills in writing, the English teacher at a Junior High School should be attentive to vocabulary acquisition inquiry. The teacher also provides good teaching, creates a conducive atmosphere for learning, and is innovative by using interesting learning media (Ginting et al., 2021). The inquiry literary develop the enrichment of how contextually a sentence co-exists and has coherency, if not, it violates its academic characteristic (Kurnia Irmawati et al., 2021; Skar et al., 2022). Additionally, it is essential to nurture the students how to write in English productively, not a translated language, which somehow is interfered with by the student's first language (L1), Bahasa Indonesia, or even, their mother tongue (MT) (Amjadiparvar et al., 2018; Kurnia Irmawati et al., 2021; Nordin, 2017). Moreover, to accomplish the objective, the core curriculum objectives were aimed at the following targets, i.e. (1) developing the inlay on a

product of language ability and capacity, (2) enhancing the vocabulary scaffolding for the contextual and terms which considered close to the student's daily life, (3) organizing the section of events and encouraging the students to have a healthy competition in developing writing content (Rofiqoh et al., 2022; Skar et al., 2022). Accordingly, the guideline of junior high schools stated directly to improve the student's ability in the social function of contextual texts, within written descriptive procedures in the English Language (Dimtsu & Bugssa, 2014; Perdana & Sulistyaningsih, 2020). Therefore, nurture consists of generate cohesion and coherence which is a follow-up from sentences into a paragraph.

The utilization of technology and supportive equipment derives the English Teaching-Learning process in terms of exposure to variation learning modules. To support the research design, the researcher happened to conduct preliminary research on the school before initiating this teaching evaluation on the actual classroom teaching-learning (Fitri & Rifa'at, 2022; Long & Shi, 2022). It was projected that school teachers employed Powerpoint presentations of Microsoft Office as teaching utility, conversely, the utility works great in pandemic conditions (Hensher et al., 2022; Wilson & Lengeling, 2021). The utility emphasized the interactions, which focus on their experience of the exposure to English teaching with technology in a learning module (Wilson & Lengeling, 2021).

The school teacher said the Powerpoint presentation still did not draw attention, lacked interest, and limited alternative design (Khasanah & Anggoro, 2022; Long & Shi, 2022). Consequently, it is proved by the students urged the learning media, which relate to their daily bases. Therefore, corresponding to the phenomena of technology utility in school, the researcher introduced Devourlish an Interactive Multimedia Computer Application which was implemented to be an English Subject learning module, teaching descriptive texts.

The devourlish is an attractive utility that will improve the student's English skills. To learn and urge them to be involved effectively in English learning and exercises (Al-Habsi et al., 2022). It assists the students in learning English subject, particularly, within this article, it focuses on teaching descriptive texts. The utility certain features on the exposure to illustrative and explorative English vocabulary, which is relate to composing sentences, and form into a proper paragraph in English language (Haryanto, 2021; Lubis et al., 2018; Muslem et al., 2018).

Moreover, the devourlish also provides sentence drills, grammar focus, and elevated levels of tasks, which improve students learning experience. The utility concerns the dictions which is the aim of a descriptive text which formerly developed to illustrate the object, person, or things. The build-up of its generic

structure consists of the identification of a phenomenon and qualifies the feature of how contextually attaches the whole sentences into a paragraph. Consequently, its application should help both the school teacher and their students in teaching-learning English subjects.

Therefore, the article corresponded with the R&D design, with the process of formative teaching as the evaluation phases ADDIE for the seventh grade at SMP Swasta Dwi Tunggal, Kota Medan. It projected the engaged process of the interactive multimedia as the application of English language learning utility which is developed for teaching writing descriptive text to junior high school students.

METHODS

Research Design and Subject

The article projected the application of the R&D design, with the process of formative teaching as the evaluation phases ADDIE for its role to evaluate a learning utility software in actual classroom and teaching practices. The design illustrated the engagement activity, the interactions, students' respond, and conversely, their task achievement in peer-to-peer, working small group, and classroom test (Simpol et al., 2022; Siregar et al., 2020). These activities implied the formative evaluations were executed within a classroom as field test (Fitri & Rifa'at, 2022; Jiao, 2021). The population of the study was the the seventh grade at SMP Swasta Dwi Tunggal, Kota Medan, consisting of three classes in academic year 2020/2021. The subject of the study was described in Table 1.

Table 1. The Subjets of the study

No	Stage of process	Number of Students	Description of the student
1	Peer to Peer	3	1 student for each category, i.e.: Low, Medium, and High achievement
2	Working small group	9	3 students for each category, i.e.: Low, Medium, and High achievement
3	Classroom test	13	All member of the classroom
	Total	25	

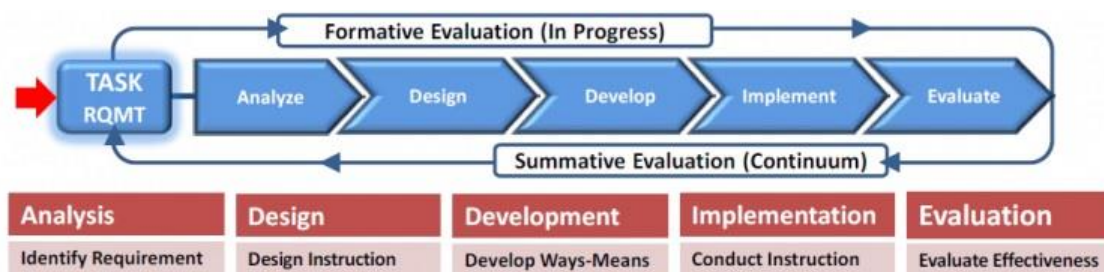
The subjects of study were selected based on purposive sampling, which also suggested by the school teacher, and had been classified by the school staff.

The classification of English proficiency was in level 1 for high level, level 2 for medium, and 3 lower level. Moreover, the researcher represented the class and their stages of evaluations.

The Procedure of Data Collection

Instead, the evaluation of score data the researcher also employed questionnaire, to enquire their respond to the utility apps which is the basis for revision and product quality control. In addition, to determine the product validity level, its relationship to teaching context, and design, the researcher employed two educational experts to supervise the software development and its test section at the school. the evaluation phases in ADDIE, was conducted to overview the apps's classroom test, and formulated a summative test which desing for students' achievement in writing a descriptive text (Fitriyah et al., 2022; Wahyudi et al., 2022).

Figure 1. The ADDIE Procedures of R&D design



*TASK-RQMT = Task Requirement affect leader and self-development, individual, and collective training, professional education, and mission(Rahmawati et al., 2022)

The summative evaluation targeted the apps effectiveness in classroom testing. Nonetheless, the potential effect of the utility apps was determined by the result of school test, the students' achievement in sumative test also determined their ability in writing a descriptive text and signified the apps modul test item for acquiring an analysis in difficulty and items discrimination index (Siregar et al., 2020; Usman & Anwar, 2021). These indexes resembled the impact of utility in providing a proper level as the junior high school student, and not benyod. Correspondingly, the researcher also reffered on the school subject creteria of minimum mastery, (*Kriteria Kelulusan Minimal*) which is 75.

The Procedure of Data Analysis

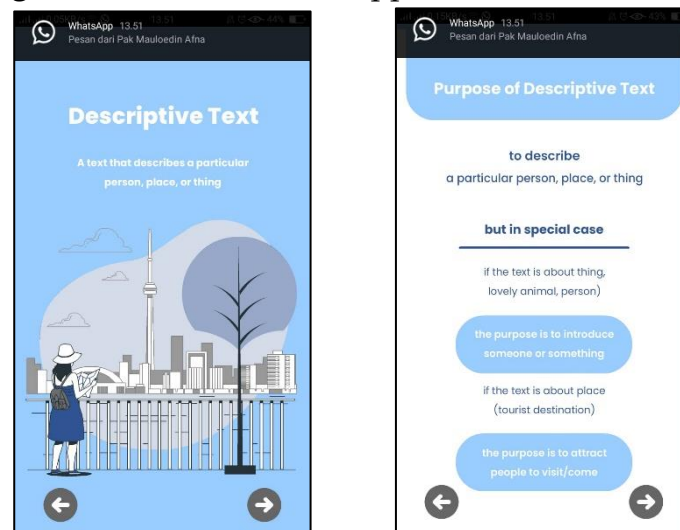
To analyze the process of formative and summative evaluation in ADDIE, the researcher employed three level of reliability (high, medium, and low) for its collective evaluations (formative and summative) (Atiqah Nurul Asri et al., 2022;

Siregar et al., 2020; Usman & Anwar, 2021). These reliabilities stand for the application capability which able to run cross ecosystems of Android smartphome, and Apple iOS as well; (1) The first, High reliability is environment of capability and resources, present high realistic signatures, and effects to stimulate the combine materials, achive multi-platforms in tasks and objectives. (2) The second, medium reliability represents on a reduced condition-setting for training environment for capabilities and rources which required in replication the evaluation. (3) The last, low reliability correspond to minimal requirements and resouces which is required in replicating acceptive conditions, which drive the evaluatiosn as collective tests, taks, and objectives. Therefore, in ADDIE for R&D design, the process improved in a teaching-learning module, which vary to represent on self-structure for initiating a peer-to-peer, working a small-group, and classroom test.

The Devourlish

The Devourlish is a multi-platform Apps, and capable run-on both Personal computers (PC) and Smartphones; The Google-Play and Apple-Apps Store Ecosystems (Hamid et al., 2022; Sopa et al., 2020).

Figure 2. The Devourlish Apps Interface screenshots



Accordingly, the devourlish requires a sperate build for each platform, but some can be directly run on any platform without special preparation, being written in an interpreted language or compiled to portable bytecode for which the interpreters or run-time packages are common or standard components of all supported platform, e.g., x86 software architecture, with variaces of IA-32 and x86-64, as 32-bit ARM architectures (newer in 64-bit version) are commo to

smartphone and tablet computers, which run Android and iOS ecosystems (Wibowo et al., 2020). The Application (abbrev. as Apps) serves as device's software in 64-bit, with kotlin programming language, the recent option to Java's as Google's favorite language for the development, mixing with the C++ construction, and Application Programming Interfaces (API) base (Hahn et al., 2022; Jiao, 2021; Umar, 2022). The Devourlish comprehends the set of developments, i.e., a debugger, texts libraries, emulator, documentation, codes, and tutorials. It features the Google's Android Development Tools (ADT) plug in, which later famous as Apache Cordova platforms, which support the Chrome HTML 5 Web Apps, consequently, supporting to the growing of language learning application, particularly English Language Learning.

Ethical Consideration

The protocol of the research was formally approved by the administrative of SMP Swasta Dwi Tunggal, Kota Medan, as a R&D design on students' participation in evaluation test. The questionnaire shared after the process of evaluations, to identify the students' respond in learning writing a descriptive text through out the applications, which run on smartphone devices. The participation is voluntary, the data is handled confidentially, and it decalimed a consent from each the English teachers and their students. There was no monetary gift were given for completing the questionnaire. The administration of the survey considered methods to reduce bias due to social response, familiarity, and compassion effect; encouraging the respondents to reply and give their answer honestly.

FINDING AND DISCUSSION

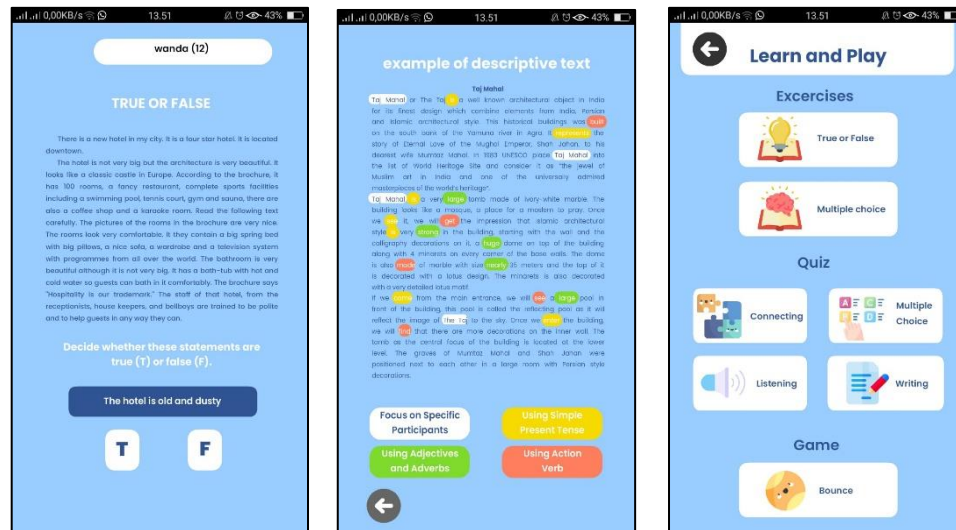
The finding illustrated the ADDIE of R&D design for its evaluation phases. In the phase, a formative and summative resembled to the stages of evaluations. Formative concerned the validity, practicality, and protential effect of the product. On the other hand, summative related to writing test section. In finding, the researcher described the result of teaching writing a descriptive text process, the evaluation pahses of ADDIE, and the stages Process, and its implication to English Language Teaching (ELT) field of inquiry.

Teaching Writing a Descriptive Texts Proseses

The processes of initiated software inteactions experiences and signified the English teacher as main supervisor. The teacher should concern for the students who are savy with android smartpone, and its application. The teacher also belive these students are modern learners and should be treated as their

characteristic. By adopting the devourlish is a multi-platform Apps, the teacher should be able to organize a cloud-base learning and activity and improve their pedagogic competence which push to explore the cyber world and its utility which beneficial in ELT as well.

Figure 3. The Teaching Material Interface screenshots



In addition, the teacher categorized several the students' characteristics according to the occurred process in teaching writing descriptive text:

- 1) The untethered students, who have dynamic personality, high expose and apps engagement, preferred to a recorded teaching tutorial, short explanation (micro-learning), and always relate to their personal smartphone. The students' smartphone indentify their character and behavior.
- 2) The resourceful students, those who always access the information on demand, which potential as referall in the group. The teacher should manage the students' curiosity and idependence in desingning teaching material. The teacher should concern the student's resourcefulness as additional point which relevant materials in exercising to write English texts. The core point of the second characteristic was to stimulate the students to work further independently about their learning materials, which should be copperated on their own demand, instead the teachers' instruction, or being given by the teacher.
- 3) The third characteristic was a collaborative student who prefer to work in group instead working by their own. The third character naturally require teacher feedback and instruction to work their own taks. The teacher should organize to facilitate them in working a group.

To meet these characteristics, the teacher should consider a cooperated teaching plan which accommodate a software which also provide teacher feedback and assistance. Accordingly, it was a mutual comprehensive process for triple relationship in ELT and research, which invited the researcher to observe the proses of teaching writing a descriptive text, between the teacher and their students.

The classroom process run in 10 minutes presentation which was conducted by the researcher, then continued to peer-to-peer process in teaching troughout the devourlish apps. The next step was having discussion for selecting proper vocabulary, its construction, emerging cohenrence, and cohesive device, which run 30 minutes. The teacher also promoted questions and answer (Q & A) section, permitted the students to share their comments and reactions on the given tasks. The grammatical constructions are important, however, for the seventh grade, its should be lighted to annotate the students' layer. The last process also initiated the self-directed task at home, using the application by their own, which having updated the outcome and feedback.

The Evaluation Phase of ADDIE

The analysis of ADDIE evaluation projected the seventh grade of SMP Swasta Dwi Tunggal, Kota Medan employed the prototype curriculum when the research was conducted, during the September 2021th to January 2022th. Relying the application on summative result, for the 25 students who worked on the application are encountered with six elevated tasks, level 1 to 6, of the descriptive text exercises within the software.

Table 2. the distribution of students' summative test achievement

Test level	Writing Assessment level					
	Instructional on Peer to Peer (Scoring ≤ 6)		Instructional on Working small group (Scoring ≤ 7 - 8)		Independent Classroom test (Scoring 9 -10)	
	N	%	N	%	N	%
1	0	-	0	-	25	100
2	0	-	1	4	24	96
3	7	28	5	20	13	52
4	6	24	8	32	11	44
5	2	8	16	64	7	28
6	4	16	21	84	0	-

From the above table, the score illustrated the students' achievement on the independent stage for classroom test (7 students who get score 9 to 10 with 28%)

which considered level 5 difficulty. Conversely for the highest level, level 6th, the students still manage to get score of 7 to 8 (21 students for 84%), yet, there was still get score 6 (4 students of 16%). Accordingly, the achievement of the students was on the level 5 with the score 7 to 8 (as 16 students for 64%), Correspond to the school subject criteria of minimum mastery, (*Kriteria Kelulusan Minimal*) which is 75 in the English subject, conversely, the achievement reached out to 80 % of the students learning achievement. Eventually, the success of the app to facilitate English subject learning experiences. After collecting data, the mean of doing the action through interactive multimedia.

The Stages of Process

The stage of process demonstrated the product implementation on classroom as field test. The researcher later figured some errors and shortcomings as functions of navigation keys that are not in accordance with the hyperlink for its function over the interfaces. The errors presented as the objective to be revised prototype which validate on the next trials. The administered questionnaire illustrated the design flaw, and cloud-based storage delay (Handayani & Aprilliandari, 2022; Kurniasih et al., 2022).

The following correspondence satisfied with the generic structure of learning materials, drills, grammar supports, and exercises. For the questionnaire, the researcher identified the delay of timing and periods when the drills were executed. The result indicated the formative score was 3.47 for its indication the higher reliability. The stages included to measure the subject matter, auxiliary information, affective consideration, interface, navigation, pedagogy, and robustness. The researcher provided three stages, as follow:

1. *Peer to Peer*

The devotional questionnaire administered 3 students in peer-to-peer evaluation to determine the practicality from the 15 items for the whole contents. The obtained score of practicality in one-to-one supervision, include the interaction between the teachers and their students, was 3.69 which was very reliable. The peer-to-peer evaluation was also intended to get comment toward the developed product which was directed to; (1). The capability of learning the product by using its independently in any time necessary. (2). The developed product was giving a new knowledge of junior high school android-based learning. Therefore, peer-to-peer stage was suit to the students who are the untethered characteristic.

2. *Working small group*

The product followed in revision after one month of classroom practices. Moreover, the next evaluation, which is called the 2nd prototype was taken

into small group test, resulted 3.74, which is high reliability. The developed product provided feedback; (1). The students expressed their interest to work further in developed apps. (2). The students interested to participate to engage with the generic texts which randomly gave the following up test. Furthermore, from peer-to-peer evaluation and small group evaluation should concluded the developed apps categorized as proper English learning apps, which potential to be developed more level of user to drive their English writing skills. Eventually, the resourceful students worked properly within this stage, because they able to aid their friend and represent their teacher as well.

3. *Classroom test*

The last stage, the testing for whole class application acquired th feedback from the whole classroom, which determine to modify the system and its delay access to the could-contents. The classroom test identified the 31 random tasks considered in average for junior high school students, and only 9 items were considered as hard. The result of items difficulty index was the average score 0.26 – 0.75, which mean the descriptive drills, tasks, and paragraph construction was good, for the items were considered neither difficult not easy to work. The last stages determined having positive discrimination indexes. The last stage work for all students' characteristic, but it accommodated the collaborative one.

The Implications of Teaching Writing with Devourlish Apps for its Evaluation Phase and Stages of Process

The finding indicated the the items classify the students' characteristic for which is the proper evaluation phases, the stage to be participated, and yet, with the supervisory from the English teacher. Furthermore, to determine the potential reliability of the apps, the researcher measure the students' summative test achievement on writing descriptive texts (Kurnia Irmawati et al., 2021; Rofiqoh et al., 2022). The result indicated corresponding to the school subject creteria of minimum mastery, (*Kriteria Kelulusan Minimal*) which is 75 in the English subject, conversely, the achievement reached out to 80 % of the students learning achievement.

The present investigation project the process teaching writing with devourlish apps projected a succesfull approach and draw interest from the teacher and their students for having more engagement as linear interaction to address a new way in learning to write in a smarphone instead manually written on papers. The approach might not a revolutionary for the milenial student who are born with tech savy, and privilege to touch its application for the first hand,

hence, it also became a support in ELT with Computer Assistance of Language Learning (CALL) (Agesta & Cahyono, 2017; Xu & Li, 2018; Zhang, 2018). The following stages above verified the systematical components which attempts to turn out written product into a digital interface and increase its significance. Conventionally, the writing was delivered manually on paper task, however, the invent of the new software application manages to transfer its contentuality onto new surface.

The approach still required human formulation in constructing the linked ideas which have coherency and cohesive one to another. The brainstorming process in digital writing should be at ease by the digital dictionary, which able to shorten a proper diction in generating a descriptive text (Al-Habsi et al., 2022; Xu & Li, 2018; Zhang, 2018). Moreover, the revision should follow more detail with the software aid which it developed by the origin of the target language (TL), within the study, English as the target language, the subject are the junior high students. Consequently, the participants were supervised by collaborated work, the school teacher and researcher.

The teacher intervention during the writing process also essential, considering the student, however, for the upper level of student, the intervention should not more essentially occurred. Within the field test on classroom, the interventions performed to give direct feedback, particularly, the correction, as pivotal role to remind the students to their tasks and objective in generating texts, before submitting their work on devourish apps. The participants expression of positive opinions to the apps settled good feedback for English improvement for ELT world. It is always a worthy to note the students' feedback which resemble their development. Eventually, the intervention worked to the students' feedback and growing process.

CONCLUSION

From the analysis, it concluded that the apps were valid an average score on the validity was 3.67. it was indicated at fair validity level, which signified the school subject criteria of minimum mastery, (*Kriteria Kelulusan Minimal*) which is 75 in the English subject, conversely, the achievement reached out to 80 % of the students learning achievement. The apps were practical in the evaluation with ADDIE R&D design, which proved its interactivity to determine the students' achievement in writing. The research also suggested to consider the students' vocabulary acquisition level, characteristic, and their stage level.

Moreover, the research also suggested the students should consider utilizing the apps gradually and extend their screen-time periodically to increase their paces. Accordingly, the English teacher also should consider utilizing the

software for their learning variants and help to maintain their students' interest in ELT with more approach digital world exposure, or it is well known as ICT-Based Learning.

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