Exploring Students’ Needs to Develop HOTS-based Digital Media

Abstract

The 21st Century skills are one of the educational goals in Indonesia. One of the main goals is to enable students to compete at the global level. As a consequence, HOTS-based learning is introduced through the 2013 curriculum. In this case, media, materials, and teachers should be able to facilitate the students getting used to implement HOTS. Hence, this study investigated the students’ needs, which become a basis in the development of HOTS-based digital media. To collect the data, this study employed descriptive qualitative analysis with questionnaire and interview as the instruments. The subject of this study was eighty three of the eleventh grade students by using purposive sampling technique. The findings of this study reveal that the students faced difficulty in writing skills particularly using correct grammar and mastering English vocabulary. Consequently, the materials and activities in the media should be able to facilitate them to improve their understanding of grammar and vocabulary mastery. The students also declared that they need to improve their HOTS, as they are still unable to use analyzing and creating skills. At the same time, the learning-need data indicated that students hoped that the developed media should provide opportunities for fellow students and teachers to review writing and provide constructive comments. At the end, the students suggested that the media provide warm-up activities in forms of videos, quizzes and questions to be discussed, and the topics in the media must be relevant to their daily life.

Key Words: Digital media, writing skill, HOTS, need analysis.

Suggestion for the Citation and Bibliography
Citation in text:
Pamungkas & Wulandari (2020) or (Pamungkas & Wulandari, 2020)
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A. Introduction

To meet the future demand and to prepare the Indonesian Golden Generation (Generasi Emas Indonesia), the competence standards which are based on the 21st Century Competences have been set. Indonesia's demography and potential of being one of the seven countries with the strongest economy in the world become the supporting factors to strengthen the country's contribution to the global development (Permendikbud No.21 Tahun 2016). It means that Indonesia's young generations should prepare themselves to participate in the international development. This phenomenon causes Indonesian Government to adeptly respond by designing the 2013 Curriculum – which focuses more on the implementation of Higher Order Thinking Skills (henceforth, HOTS), the three highest levels of thinking included in Bloom's Taxonomy. Making the students getting accustomed to the implementation of HOTS is expected to help them to be competent in an interconnected world, in which high performances in analyzing issues, solving problems, and making discoveries are needed.

Besides the implementation of HOTS, another factor that can help the students prepare for success in an interconnected world, is the English proficiency. Since English has become the world’s Lingua Franca – a language which is used by groups of people who speak different languages but is not used by members of the same group (Christiansen, 2015). Furthermore, as the advance technology and business transactions involve people to communicate regularly with other persons from diverse cultural backgrounds, English skill has been one of the vital life skills demanded for success in the 21st century (Battelle for Kids, 2019). Therefore, it also puts a greater demand on strengthening learners’ English competence in language classrooms (Sercu, 2005). In gaining English proficiency, students should get used to applying HOTS.

Pamungkas (2018) proposes that the usage of HOTS can empowers students to pick up the English capability ideally. If they neglect to do as such, the students' skills can’t be grown well, just as their learning inspiration. Added to this, promoting HOTS in the English classroom may offer the students to be more critical in producing ideas to communicate, particularly in productive skills-writing and speaking (Gibson, 2012). Writing skills is considerable pivotal to be achieved by foreign language students. Mastering writing skills helps the students to succeed in their academics, career, and other relevant aspects (National Commission on Writing, 2004). Besides, the learners are additionally required to have "21st-century skills", which are written communication skills, problem-solving, and critical thinking (Wagner, 2008, p.14). On the other hand, mastering writing skills is not an easy task, Richard and Renandya (2002) even claim that it is the most challenging skill for foreign language learners. Moreover, Megaiaib (2014) concluded in his study that mastering writing skills for the senior high school students in Indonesia still face some difficulties in using the appropriate grammar and vocabulary.

It indicates that producing a written text is considered as the intricate process. Students should use their critical thinking skills to produce good writing. According to Sachs (2004), writing process is not just consciously as the procedure of critical thinking but, involuntarily, it can be named as a product that conveys the writer's way of thinking critically. Critical thinking ability is fundamental in producing a text, and it helps the learners to solve the problem, analyze the issue, evaluate the issue, and create the solution. Those angles are regularly called as HOTS (Krathwohl, 2002). Learning English writing skill has to get used to applying HOTS because it turns into a demand in the present life.

The usage of HOTS in language instruction is vital to help learners confronting genuine issues. On the contrary, Indonesia's outcome in the OECD Program for International Student Assessment, or PISA 2012 reported that from 70 nations inspected every three years, Indonesia’s positions are 64th. The evaluation of PISA is to assess reading, mathematics, science, and problem solving and "it does not measure whether the learners can recreate what they have realized; it inspects how well they can extrapolate structure what they have learned and applied that information in new settings, both in and outside of school" (OECD, 2012, p. 3).

Technology based media provide some benefits in teaching and learning process. It is also can be used to promote HOTS and Writing skills, as the finding of an examination study directed by the National Writing Project (2013). Digital technologies are shaping the students’ different methods of writing. Those technologies help instruct writing to middle and secondary schools.
learners as those media are viewed as "generally facilitating teens’ personal expression and creativity, broadening the audience for their written material, and encouraging teens to write more" (National Writing Project, 2013, p.2). Besides promoting writing exercises, technology-based media can empower learners to increase all levels in HOTS (Hopson, Simms, and Knezek, 2001). Adding to these concerns, Ali (2012), deduced in his research that ICT is one of the viable devices to advance HOTS for young students. Thus during the learning process, the instructors have to utilize technology-based media to build the students in improving their HOTS. That is the reason, utilizing technology-based media to instruct writing ought to oblige students to think critically.

As has been examined before, technology-based media are advantageous to teach writing skill as well as upgrade students to increase all levels of HOTS. Considering the importance of HOTS and technology-based media in teaching and learning English, some experts and practitioners conducted research related to this issue (Indriana & Kuswandono, 2019; Mursyid & Kurniawati, 2019; Singh et al., 2018; Sianturi et al., 2020; Margana & Widyanotoro, 2017). Sing et al did research to develop and validate HOTS-oriented modules that can be used in teaching writing skills for weak ESL-students (2018). It used a qualitative research paradigm employing documents analysis, interviews, observations and validation form. They found that the modules served as guideline for teachers in teaching and Integrating HOTS and writing skills. The second research was conducted by Margana and Widyanotoro (2017) who used research and developmental study to develop HOTS-oriented English textbooks in vocational high schools. A total of 14 English teachers and 320 students were involved in this study using three data collection techniques, namely distributing questionnaires, interviews, and documentation. The study reveals that the development of English textbooks oriented to HOTS was responded positively by respondents. English textbook encourages vocational high students to establish their HOTS skills which lead to students' creativity and self-regulated learning practices.

Those two studies can lead us that the importance of the material is designed according to the students’ needs and the emphasis on HOTS. This study, on the other hand, equipped the previous studies that focused on the development of material. It is indeed necessary to support another learning resource in the form of digital media. Based on the preliminary observation in several schools, however, the researcher found that there were no available technology media such as digital media in teaching writing skills that accommodate HOTS. To address this gap, this study concerned to investigate the students’ needs as a basis in the development of digital media promoting HOTS to teach writing for senior high school students.

B. Literature Review

1. Lower and Higher Order Thinking Skills.

In Bloom’s Taxonomy, the initial three levels are grouped into Lower Order Thinking Skills (LOTS). Moore and Stanley (2010) stress those levels are grouped into LOTS since those sorts of thinking the only spotlight on a case that has just been discussed and no new or distinctive thinking is finished. Although LOTS are not esteemed as intricate tasks, to ace Higher Order Thinking Skills (HOTS) students firstly achieve a lesser level of thinking. Three thinking levels are grouped into LOTS which are remembering, understanding, and applying.

The principal most minimal level out of three levels comprised of LOTS is remembering, where the students should address the straightforward inquiry to know or review an object that has been already adopted. Understanding is deliberated as the second in thinking level which is the circumstance where students are solicited to show their comprehension from the materials that have been instructed. The most elevated level of intuition in LOTS is applying. In this phase of thinking, students are relied upon to have the option to execute or utilize the information got beforehand in the new circumstance. What makes these levels are as essential as those included in HOTS is because they are regarded to step stones to more profound learning.

Higher Order Thinking Skills (HOTS) are viewed as a significant angle in educating and learning. Up to right now, it is accepted that to get by in this cutting edge time, students need to have what Wagner (2008, p. 14) called as "21st-century abilities" (e.g: innovativeness and basic reasoning, critical thinking, and investigative thinking in their learning). As a rule, it is incomprehensible for them to endure only by memorizing textbooks. They are unequivocally
proposed to investigate and encounter realistic tasks associated with this present reality. They can create, ace, and show genuine skills. With those intentions, a few researchers direct serious examination of this field. Some of them even plainly characterize the term HOTS.

Moore and Stanley (2010) comment that higher-order thinking abilities – otherwise called basic thinking or more elevated level thinking – are progressive degrees of thinking, which include utilizing thinking abilities, both deductive and inductive. They likewise note that this significant level of thinking incorporates the exercises of looking at, grouping, sequencing, designing, web determining, estimating, and investigating. On the off chance that we consider the level of thinking set up in Boom’s Taxonomy, the three levels that command HOTS are analyzing, evaluating, and creating.

Analyzing movement implies breaking separated data and inspected how the data related to one another. It is more than simply examining specific data. Another fundamental piece of the breaking down level is that students are relied upon to surmising none completely exacting or clear data and discover the proof to help the deduction. The following level is evaluating in which students utilize a few measures to pass judgment or create an opinion about an object. The opinion, nevertheless, requires to fit the rules, yet at the same time, it has to be a genuine idea. The highest level thinking is creating, which requests the students to get data from various approaches to achieve new insight. Numerous teachers frequently erroneously accept it as applying activity, since either creating or applying manage making a certain new object by placing objects together. On the other hand, the action of creating includes students creating a different item. Another expert, Brookhart (2010), characterizes HOTS into three classes, which are HOTS in terms of the transfer, critical thinking, and problem-solving.

Brookhart (2010) declares that behind any of the intellectual scientific categorization, the target of instructing is to encourage the students to do the transfer. It implies that students can execute the developed knowledge and abilities to the novel context. What he implied by ‘new setting’ here is an object that has never been acquired by the students previously, regardless of whether it is an object that generally new. HOT will take place each time that the students can create an arrangement between what they are discovering and different components away from it. In the meantime, HOTS and critical thinking can be characterized as the capacity to construct wise judgment or create reasonable critique. Inauthentic life, one can be regarded as an informed individual, if the individual can generally be depended on to comprehend different issues and utilize their insight in concluding cases to do in light of those issues.

The points of teaching HOTS are to assist students being ready to reason, reflect, and settle on a cool-headed choice. The regular of ‘educated’ individuals can give some reasons, reflect, and settle on a trustworthy choice without being constrained by educators or tasks. One of the significant duties in HOTS is taking wisdom that can be utilized for deciding the believability of a source concerning the time of ever-growing data. Besides, in the time where the noteworthy improvement brings about progressively assorted school and society, it appears to be difficult to make everybody’s suspicion gets comparable.

Consequently, distinguishing the presumption dependent on various perspectives, which Brookhart (2010, p. 6) calls as "seeing where you are coming from," is a required basic ability. If we adjust HOTS to problem-solving, then the aim of our instructing is to encourage the students to recognize and solve problems that they face both in the scholarly task and, real life. Those are not sorts of issues which can be achieved by 'memorizing' action. Brookhart (2010, p. 7) asserts, "Every academic discipline has problems," some of them are close issues, and the rest are open-finished issues. Individuals incline to achieve this kind of case from multiple points of view, in which the qualities and suspicion they carry to the assignment offer a solid impact. These sorts of issues are typically in the type of real issues for which answers are not identified. For this situation, what is implied by 'being able to think' is having the problems to be solved.

Given these focuses, Bloom’s Taxonomy offers an enormous impact in the instructive field as thinking abilities prepare students to endure in the real-world. On the other hand, to accomplish this objective, they should be acquainted with think critically, or put it differently, to actualize HOTS. Thus, teaching senior high school students have to oblige HOTS both in materials and media especially in English. Naturally, teaching English for senior high school students must execute HOTS standards, particularly in written skills, which are deliberated as the most challenging skills.

2. Writing Skill

Writing is one of the significant skills that learners ought to achieve since there are three reasons. The first, writing well is a crucial proficiency for education or workplace success (National Commission on Writing, 2004), however, one that is particularly hard for second language students to master. Second, writing can be a successful instrument for the improvement of academic language capability as students more promptly investigate progressed lexical or syntactic expression in their written form. Third, writing over the curriculum can be priceless for acing differing topic, as written expression permits students to raise their attention of knowledge gaps, theoretical issue explicit information into patterns that can be implemented to other pertinent cases, and expound mental portrayals of information that can be more effortlessly recovered, while at the same time permitting educators to better understand the students’ condition of knowledge and thinking process and along these lines alter guidance as vital. In the meantime, senior high school learners get troublesome in writing, they can’t build up their composition.

This issue applicable from the PISA results for Indonesian learners are the second most minimal in the association table, more terrible than the last PISA in 2012 when Indonesia positioned 64th (OECD, 2012). The outcome shows the Indonesian education framework is going no place, regardless of gigantic investment. Therefore, HOTS ought to be actualized in teaching-learning writing since there will consistently be an association between writing and critical thinking (HOTS). Writing is considered as (1) procedure of doing critical thinking and (2) item that conveys the consequence of critical thinking (Sachs, 2004). Consequently, writing will be viewed as a monotone movement if it is only considered as one of the communication abilities rather than the procedure and result of critical thinking. Additionally, those writing and HOTS can be obliged into digital media. It offers learners willing to learn and it will help instruct as well. In other words, students will be dynamic in the teaching-learning process.

One of the media in teaching English is digital media. Digital media have played an important role in the teaching of writing, through both the cognitive era that began in the 1980s, in which word processing was emphasized as a tool for revision (Pennington, 1993) and the socio-cognitive era that began in the 1990s, in which computer-mediated communication was emphasized as a tool of the social construction of meaning (Warschauer, 2010). Over the last decade, though, important new tools have emerged for the teaching and learning of writing.

C. Methodology

This study aimed to design an appropriate digital media which took into consideration HOTS aspects to teach writing. The focus of this study, however, only explored the students’ need through the descriptive qualitative research design. The eighty three eleventh grade students from four senior high schools involved to this research. The sampling used in this research was purposive sampling that means the samples of this study were taken based on the needs criteria: eleventh grade, social study program and the school has implemented the 2013 curriculum. To collect the data, the researcher used questionnaire and interview guideline as the main instruments. The questionnaire is to explore the students’ voice regarding their needs. The questionnaire was in the form of multiple choices so that the students could choose more than one option according to their circumstances. The obtained data from the needs analysis questionnaire were analyzed using percentage and frequencies. To explore more the students’ needs, interview was to confirm the result data taken from the questionnaire. In the end, the results of interview were analyzed through description qualitative.

D. Finding and Discussion

The needs analysis questionnaire was distributed to eighty three students of eleventh grader from four senior high schools. Forty three participants were females and the rest were males. The needs analysis questionnaires were divided into two forms: target needs and learning needs. The target needs covered the necessities, lacks, and wants.
Table 1. The students’ necessities

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
<th>%</th>
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<tbody>
<tr>
<td>My English writing skill will be used for….</td>
<td>getting/applying a job</td>
<td>26.7</td>
</tr>
<tr>
<td></td>
<td>facing the global market</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>continuing study</td>
<td>6.7</td>
</tr>
<tr>
<td></td>
<td>communicating with native speaker</td>
<td>13.3</td>
</tr>
</tbody>
</table>

Based on the result of the need analysis, 40% of the students wanted their writing skill to be used to get a job and to face the global market. It is supported from the result of the interview which is:

"Kemampuan bahasa Inggris menurut saya sangat penting untuk sekarang dan untuk karir kedepan apalagi saat ini Indonesia sudah masuk dalam Masyarakat Ekonomi ASEAN (MEA) jadi untuk menghadapi pasar global kita harus menguasai bahasa Inggris sehingga keamampuan komunikasi baik tulis atau lisan harus terus ditingkatkan". (I think English is very vital skill for this time and my future career, moreover Indonesia is one the member of ASEAN Economic Community so that it is suggested to have English skill both written and spoken that should be always improved)

That is why the materials included in the media is practical, meaning that it should contain useful expressions and various texts that meet the students’ objectives.

Table 2. The students’ want

<table>
<thead>
<tr>
<th>Question</th>
<th>Option</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your intention in learning writing?</td>
<td>To improve my grammatical knowledge</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td>To master vocabulary mastery</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td>To understand some kinds of texts</td>
<td>6.7</td>
</tr>
<tr>
<td></td>
<td>To be able to write a text with appropriate grammar and vocabulary</td>
<td>66.7</td>
</tr>
</tbody>
</table>

Moreover, the majority of the students needed to be able to write in English using appropriate grammar and vocabulary, the activities included in the media should facilitate the students to learn structure, punctuation, and vocabulary. Furthermore, the students faced difficulty in using the appropriate grammar, and being lack of vocabulary became their main problems during English writing activities.

"Saya kesulitan dalam menulis karena kadang lupa grammar yang tepat itu apa, kemudian penguasaan kosa kata saya cukup terbatas jadi ya saya kesulitan ketikamembuat sebuah tulisan yang sesuai dengan topik". (I faced difficulty in writing because sometimes I forget what the right grammar is, then my vocabulary is quite limited, so I faced difficulty when writing an object that fits its topic)

Table 3. The students’ lack

<table>
<thead>
<tr>
<th>Question</th>
<th>Option</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which of the following writing activities that you cannot do?</td>
<td>I cannot memorize the procedure of writing a text</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td>I cannot understand the procedure of writing a text</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>I cannot practice the procedure of writing a text</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>I cannot analyze the procedure of writing a text</td>
<td>13.3</td>
</tr>
</tbody>
</table>
I cannot evaluate language style and structure of the text 73.3
I cannot write an English text correctly and use my own idea 80

The questionnaire was to check the students thinking skills which showed that the students were not able to analyze and create respectively, it proved from the interview result:

“Biasanya saya dapat untuk mengimplenentasikan penjelasan dari guru namun ketika saya harus menganalisis sebuah teks untuk mencari kekurangan dan kelebihannya berdasarkan penjelasan yang telah diberikan, saya masih kesulitan sehingga menurut saya hal itu perlu untuk terus dilat, kemudian saya juga kesulitan dalam menulis teks baru, karena banyak topik yang tidak menarik dan sesuai dengan keinginan saya apalagi dalammenulis perlu mempertimbangkan banyak hal seperti grammar, kemudian perlu mengembangkan ide yang sesuai dengan topik selain itu saya juga kesulitan mengungkapkan beberapa kata dalam bahasa Inggris yang sesuai dengan konteksnya”.

(Usually, I am able to implement an explanation from the teacher, but when I have to analyze a text to find for weaknesses and strengths of the text based on some criteria that had been learned. I still faced difficulties. So I think it is necessary to be trained more. Moreover, I also faced difficulty in writing new texts, because the topic given is not interesting. I need to consider many aspects such as grammar, vocabularies, developing ideas that are relevant to the topic. Besides, I also faced difficulty expressing a few words in English that fits its context)

The findings is also relevant to the last research study that students’ English low proficiency made the implementing HOTS could not be implemented well (Shafeei et al., 2017). Hence the media should accommodate the activities which stimulate the students to use their analyzing and creating skills.

The information of the learning needs data is necessary, it removed the gap between lacks and necessity. It provided information about what the students need to know and what the students have not known yet.

Table 4. The students’ learning needs

<table>
<thead>
<tr>
<th>Question</th>
<th>Option</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>What do you want to your peers and teacher do toward your writing?</td>
<td>to read it</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td>to give comments</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>to give corrections and feedback</td>
<td>46.7</td>
</tr>
</tbody>
</table>

Based on the obtained data, 46.7% of the students hoped that they could join the learning process which the writing task could give them such opportunities to do peer review such as correcting and giving comments on their friends’ writing works. The findings correlate to Zhang and Hyland’s (2018) study that teachers’ feedback on students writing can facilitate the students’ involvement in writing tasks. Added to this, to learn foreign language, students should have a partner to assist them in rehearsing their English skill as well as teaching them to work together (Krogstad, 2011). The students also expected that their writing was assessed and be criticized by their teachers.

“Saya berharap medianya dapat memberikan kesempatan hasil tulisan saya dapat dilihat oleh teman saya dan mereka dapat memberikan komentar dan saran yang membangun agar dapat saling mengoreksi”

(I hope that the media can provide the opportunity for my writing to be checked by my friends. They can provide constructive comments and suggestions, so that they can correct each other)
The initial materials in the media should provide:

<table>
<thead>
<tr>
<th>Question</th>
<th>Option</th>
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<tbody>
<tr>
<td></td>
<td>Questions to be discussed</td>
<td>21.4</td>
</tr>
<tr>
<td></td>
<td>Pictures to be discussed</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>Video to be discussed</td>
<td>28.6</td>
</tr>
<tr>
<td></td>
<td>Quizzes to be discussed</td>
<td>28.6</td>
</tr>
</tbody>
</table>

The majority of the students recommended the media present the activity that stimulated the students to do warming up activities by giving relevant videos, quizzes, and questions to be discussed. Promoting various question types is crucial in classroom, since it measured students’ understanding as well as to ensure weather the learning process has been occurred (Kerry, 2002).

“Menurut saya media yang bagus itu menyediakan aktifitas pembuka yang memancing kami untuk dapat tahu materi yang akan diberikan melalui video sehingga nantinya kami bisa lebih terlibat dalam proses pembelajaran.”

(I think that a good medium provides an opening activity that stimulates us to be able to know the material provided through video. So, we can be more involved in the learning process.)

<table>
<thead>
<tr>
<th>Table 6. The students’ learning needs</th>
<th>Options</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>What activities do you want to do in learning writing skill?</td>
<td>create a story based on the given picture</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>arrange the jumbled words</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>arrange the jumbled sentences</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>complete an incomplete text</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>create a text based on my interest</td>
<td>26.7</td>
</tr>
</tbody>
</table>

The students preferred to experience the activities like arranging the jumbled paragraph, creating a guided story based on the given clue, and creating a free text based on the students’ interest. The last, the students wanted the materials included should brush up their ability in understanding the text which is usually read in daily life. It is vital that the materials should emphasize the needs of the students in their local context while teaching the English language (Banegas & Castro, 2016). As consequence, the materials should be enable students to interpret the meaning of certain words based on their context. It also stimulated the students to express their ideas that is related to the topic being learned.

"Menurut saya untuk bisa melatih kemampuan menulis, medianya perlu menyediakan kegiatan seperti menyusun kalimat menjadi paragraf dilanjutkan dengan memberikan pancing gambar atau ide untuk dapat mempermudah mengembangkan ide dalam menulis”.

(In my opinion, to be able to practice writing skills, the medium needs to provide activities such as composing sentences into paragraphs and giving pictures to ease me in developing my idea in writing.)

Based on the above data, it can be inferred that the media should accommodate activities that can give students opportunity to expose English through interactive activity, such as arrange jumbled paragraph, create a text based on the student’s interest, and use certain word in a proper context. Those can be accommodated through the digital media which can help them to increase their English writing skill.
E. Conclusion

This study was to determine the needs of the eleventh grade students which would be a basis in the development of HOTS-based digital media to teach writing skills. From the results of the questionnaire distribution and interviews, it can be concluded that the students were lack in mastering the component of writing skills such as grammar and vocabulary. Consequently, they needed and wanted the material or activity in the media that can train them to improve their understanding of grammar and vocabulary mastery. They also declared that they needed to improve their HOTS, as they were still unable to use analyzing and creating skills. Hence, the material and activities in the media will offer them the opportunity to get used to implementing HOTS. Information about learning needs is also very important; students declared that the developed media should provide opportunities for fellow students and teachers to review writing and provide constructive comments. In the end, the material in the media is to provide warm-up activities in forms of videos, quizzes, and discuss problems. All the topics provided must be relevant to their daily life. Finally, teachers utilized technology media in learning should take into consideration students’ needs as they have different needs in learning.

F. References


