SI- MASPRO LEARNING MEDIA TO IMPROVE STUDENTS' SELF-REGULATED AND LEARNING OUTCOME DURING THE COVID-19 PANDEMIC

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Abstract: Enactment policy Distance Learning (PJJ) for disconnect eye chain the spread of Covid-19 in Indonesia as well development increasingly technology rapidly can used by internal teachers learning that impacts independence and outcomes. Study participant educate. Besides that is development technology can too used by teachers do learning in the 21st century viz designed lessons. For print participant educate 21st century that can Work same, do good communication, think critical and creative. one utilization technology in the learning process that is with using learning media based on android, as participant educate Already No foreign Again with use internal smartphones life everyday. Procedure and development in study This use method research and development Brog and Gall who have modified into 8 stages. Analysis technique virgin used that is approach qualitative For analyze criticism and suggestions and approaches quantitative For analyze results validation expert use descriptive presentation and analysis independence as well as results Study participant educate. Research and development results This in the form of learning media based on android named Si-Maspro (Public Relations and Protocol Application) which has been declared very valid and feasible used in learning automation of public relations governance and protocol class XII Office Management Automation (OTKP) by experts materials, media experts, and 6 participants try out group small. Si-Maspro learning media has proven can increase independence and results Study participant educate after group trials were carried out big. Conclusion of Si-Maspro learning media that is feasible and effective used as a learning medium For increase independence and results Study participant educate the eyes lesson automation of public relations and protocol governance.

Keywords: Research and Development, Learning Media, Android, Independence Learning, Learning Outcomes, Automation of Public Relations and Protocol Governance

INTRODUCTION

Coronavirus Disease (Covid-19) has become problem health and shocked the world ever since end in 2019. Indonesia is also one of the countries infected with the Covid-19 virus. The spread of the Covid-19 virus in Indonesia is fairly fast so that make public panic as well as Lots take lives. Whole layer public must apply protocol health with do restrictions social (social distancing) and care distance physique (physical distancing) for the eyes chain the spread of Covid-19 can cut off. The government is also involved make policies in handle Covid-19
cases, one of them in field education with enactment activity Distance Learning (PJJ). Kindly no right away, students still do activity learning online with learning media assistance that has been prepared by the teacher so expected policy. This can reduce risk spread of the Covid-19 virus, (Chiodini, 2020), (Mishra et al., 2020).

Progress increasingly technology also pushing fast happening change, mainly in in Education, (Hrynko, 2019), (Fajriah and Churiyah, 2016). There is development increasingly technology rapidly. This expected can be used by teachers innovate in developing learning media, so can help and support the learning process more Good specifically during the Covid-19 pandemic. One innovation in progress technology this is that developing learning media mobile learning (M-Learning) that can accessed through smartphones for help the learning process, besides the teacher as well participant educate already No foreign with operation smartphones, teachers also have opportunity big for relevant learning as well as interesting so that participant educate more easy understand abstract material become more concrete as well as can efficiency activity learning without restricted space and time, (Rifai et al., 2020), (Suartama et al., 2019), (Restami et al., 2019), (Warsita, 2018).

The important role of learning media is for help interaction between the teacher and the participants educate in delivery material so that participant educate can increase understanding material on a material learning, as well can reach objective learning with good, (Fajriah and Churiyah, 2016), one objective eye learning lesson Automation of Public Relations and Protocol Governance that is for increase independence and results Study participant educate. Independence Study participant educate. This aims to be participants educate can arrange activity learn, acquire information or involving skills determination goals, monitoring self, manage time and set his efforts alone for reach objective learning in a manner independent especially during the learning process during the Covid-19 pandemic, (Tabuenca et al., 2015), (Tahar, 2006), (Chen and Hsu, 2020), (Carter Jr et al., 2020). Objective learning furthermore that is increase results learn. Learning during the Covid-19 pandemic besides participant educate must can do learning in a manner independent, participant must also educate can increase results learn especially in the realm cognitive. Study results participant educate this influenced by intensity Study participant educate. (Naik et al., 2020), (Ulfa et al., 2017), (Irawan, 2018).

The study previously once developing learning media mobile learning on the eye lesson Correspondence, Engineering System Antenna, and Geography, Mathematics for increase independence and results Study participant students who get results that with using learning media practical mobile learning in its use so that worthy used for support independence and results Study participant educated, (Susanto, 2018), (Firdausi and Santosa, 2016), (Rahmawati and Mukminan, 2018), (Zydney and Warner, 2016). Software ever used deep study previously that is using Adobe Flash, Appypie, Ispring Suite, and Articulate Storyline, (Ulfa et al., 2017), (Arista and Kuswanto, 2018), (Irawan, 2018), (Nurwiyayanti et al., 2019), (Mitropoulou and Argyropoulos, 2020). Based on matter the researcher interested for developing learning media android based with help android studio software on
the eye lesson Automate Public Relations and Protocol Governance class XII OTKP at SMK Negeri 1 Boyolangu Tulungagung.

METHODS

![Flowchart of Steps Study](chart.png)

Research and development models This use Research and Development by Brog and Gall who have modified into 8 stages in accordance with needs and conditions in the field. Objective research and development This done For produce product in the form of learning media based on Si- Maspro, knowing appropriateness product, know difference independence and results study participant educate between those who use media and those who don't using learning media that has been developed.

As for the steps taken namely (1) do analysis potentials and problems that occur in schools through interviews and observations, (2) do data collection with use method interview, questionnaire validation, and sheets test, (3) do planning design product as one solution in problems that occur in the field, (4) carried out validation design For know eligibility of the lagged media developed, (5) perform revision design or repair medium product developed with reference criticisms and suggestions that have been given by the validator, (6) products that have revised then tested to group small ie 6 participants educate class XII OTKP 4 who have ability heterogeneous, (7) after group trials were carried out small Then done revision design in accordance with criticisms and suggestions given by the participants teach in groups small, (8) products that have been revised Then trials were carried out usage, that is in trials to class XII OTKP 4 or class experiments involving, whereas class control that is class that doesn't using learning media that has been developed in class XII OTKP 3, each class has 36 participants educate.

Obtained data researcher that is in the form of qualitative data in the form of criticisms and suggestions given by the validator and 6 participants teach in groups small. Quantitative data obtained from score questionnaire that has been given by experts materials, media experts, participants educate as well as results Study participant educate. Method used For analyze independence Study that is with method descriptive percentage For know difference independence Study.
participant students who use and those who do not using learning media. Whereas the method used For know results Study participant educate that is with method descriptive percentage, i.e. the mean of the posttest participant teach in class experiment and class control.

RESULT AND DISCUSSION
The resulting product in research and development This in the form of learning media given android based the name Si-Maspro (Public Relations and Protocol Application). Si-Maspro can used by participants educate class XII OTKP as well as internal teachers eye Public Relations Management and Protocol lessons at KD 3.11 to KD 3.16. Menus presented at Si-Maspro can explained through Figure 2 to Figure 4 as following.

![Figure 2](image1.png)

KI/KD

KI/KD berisikan Kompetensi Inti (KI) & Kompetensi Dasar (KD) yang diajarakna pada Aplikasi Si-Maspro

Materi

Menu mater berisikan materi oada KD 3.11 sampai dengan KD 3.16 dalam bentuk tulisan

Video Pembelajaran

Menu video pembelajaran berisikan materi pada KD 3.11 sampai dengan KD 3.16 dalam bentuk video

Evaluasi

Menu Evaluasi berisikan soal evaluasi sesai dengan KD 3.11 sampai dengan KD 3.16 yang dapat dikerjakan oleh peserta didik

Absensi

Menu absensi berisikan nama siswa untuk melakukan kegiatan absensi

Petunjuk Pengguna

Menu ini berisikan petunjuk penggunaan media pembelajaran Si-Maspro

Administrasi

Menu administrasi berisikan perangkat pembelajaran untuk membantu guru dalam proses pembelajaran

Materi

Menu mater berisikan materi pada KD 3.11 sampai dengan KD 3.16 dalam bentuk tulisan

Video Pembelajaran

Menu video pembelajaran berisikan materi pada KD 3.11 sampai dengan KD 3.16 dalam bentuk video
Si- Maspro learning media This has done validation by materials, media experts, and trials group small. Validation results the presented in Table 1 as following.

Table 1 results data validation of Si- Maspro learning media whole

<table>
<thead>
<tr>
<th>No</th>
<th>Validation</th>
<th>Percentage</th>
<th>Criteria validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Material Expert</td>
<td>93%</td>
<td>Very Valid</td>
</tr>
<tr>
<td>2</td>
<td>Media Expert</td>
<td>99%</td>
<td>Very Valid</td>
</tr>
<tr>
<td>3</td>
<td>Trial Student _ Small Group</td>
<td>88%</td>
<td>Very Valid</td>
</tr>
<tr>
<td></td>
<td><strong>Average</strong></td>
<td><strong>93%</strong></td>
<td><strong>Very Valid</strong></td>
</tr>
</tbody>
</table>

Table used by permission ©Sari, Kornelia Agata. 2020. Data on the results of the validation of the entire Maspro-learning media.

Based on Table 1 above obtained the average yield validation of Si- Maspro learning media by 93% so can concluded that Si- Maspro learning media declared "Very Valid" and feasible used for eye studies _ lesson Automation of Public
Relations and Protocol Governance class XII OTKP at SMK Negeri 1 Boyolangu Tulungagung.

The advantages possessed by Si-Maspro learning media that is has utilise technology *smartphone* android that has near with life everyday participants educate can choose material to be studied form of writing or in video form so participant educate can determine the learning strategy in a manner independent and able increase results learn, some menus can accessed in a manner *offline* so save internet quota, user designed for 2 users so that make it easy interaction between the teacher and the participants educate with attractive design and the appropriate combination, complete scope eye material lesson Automation of Public Relations and Protocol Governance class XII in odd semesters, (Rifai et al., 2020), (Wijaya et al., 2019), (Tabuenca et al., 2015), (Mohd Suki and Mohd Suki, 2007), (Adawiah and Faiz, 2013).

Trial usage done in class experiment that is class XII OTKP 4 or classes that use Si-Maspro learning media and classes control that is class XII OTKP 3 or class that doesn't using Si-Maspro learning media, where class control using learning media in the form of a power point. Trial results this usage gain result to be presented in Table following.

<table>
<thead>
<tr>
<th>No</th>
<th>Category</th>
<th>Class Control</th>
<th>Class Experiment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>independence Study</td>
<td>85%</td>
<td>88%</td>
</tr>
<tr>
<td>2</td>
<td>Learning Outcomes realm cognitive</td>
<td>87%</td>
<td>98%</td>
</tr>
</tbody>
</table>

Table used by permission ©Sari, Kornelia Agata. 2020. Results of trial use of maspro.

Based on results exposure Table 2 is known exists difference independence and results Study participant educate between class control and class experiment, where class experiment earn more average tall from class control. Difference independence Study participant educate supported with easy Si-Maspro learning media accessed by participants educate use *smartphone*, the material presented interesting, and varied and accessible material accessed when and where so that support participant educate in organize, organize objective learning, learning strategies, and needs learn in a manner independent, (Tahar, 2006). Besides that, results Study participant teach in class experiment earn more average tall from class control. It due to Si-Maspro learning media has serve material in written form and video form to make it easier participant educate in understand material, attractive design as well as combination the appropriate color on the Si-Maspro learning media was developed to influence level attention and passion emotional level performance memory and plays role positive in influence retention cognitive participant educated, (Mohd Suki and Mohd Suki, 2007), (Adawiah and Faiz, 2013), (Naik et al., 2020).
Display of Si-Maspro learning media can be seen in Figure 5 to Figure 7 as follows:

- **Figure 5**: Initial Display of the Login Page

- **Figure 6**: Display of the Si-Maspro Login Page

- **Figure 7**: Display User Dashboard Students and Teachers
Figure 8 Display Material

Figure 9 Display of Learning Videos

Figure 10 Display Attendance and Evaluation Participant educate
CONCLUSIONS

Research and development This produce learning media made based on android with help android studio software. Learning media This given the name Si- Maspro or Public Relations and Protocol Application. Si- Maspro pack material learning Automation of Public Relations and Protocol Governance in odd semesters or KD 3.11 to with KD 3.16. User can downloaded for free via the Google Drive link https://bit.ly/2HfonJL, besides That users can too access book instruction use of Si- Maspro learning media via the link https://bit.ly/3neinRp.

Si- Maspro learning media This has done validation by experts materials, media experts and trials group small and declared "Very Valid" so that the Si- Maspro learning media stated worthy used in learning Automation of Public Relations and Protocol Governance class XII OTKP. Si- Maspro is also proven can increase independence and results Study participant teach in the realm cognitive proven with exists difference independence Study participant educate class control by 85% and class experiment by 88%. As for the results study in class control obtained an average of 87% and class experiment by 98%, so can concluded that exists difference independence and results Study realm cognitive between participant students who don't using Si- Maspro learning media and using Si- Maspro learning media.

Si- Maspro learning media pack material learning Automation of Public Relations and Protocol Governance in KD 3.11 to with KD 3.16 in odd semesters and Si- Maspro only can Only used on Android smartphones. because That researcher then learning media This can developed again on even semester material and can used on the system other operations like iOS.

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REFERENCES


Suartama, IK, Setyosari, P., Sulthoni, S., Ulfā, S., 2019. Development of an Instructional Design Model for Mobile Blended Learning in Higher


Tahar, I., 2006. The Relationship between Learning Independence and Learning Outcomes in Distance Education. Journal of Open and Distance Education 7, 11.


