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Diffusion of Digital Learning: Increasing Numeration Literacy and Strengthening Pancasila Learners

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Abstract

Teachers in Semarang City especially those who join in Group Teacher Work (KKG) complained low ability Study independent participant educate. This thing impact on achievement literacy numeracy is also decreasing. Required earnest effort _ For help the participants educate with introduce approach innovative learning. Project devotion public designed with objective For invite teachers to do so become an internal model utilization technology , in particular through use approach learning digital based . Approach This aim For increase literacy numeracy participant educate and strengthen profile Pancasila students . Learning process started with guide about method designing device learning use *Learning Management System* (LMS). Digital *learning* This called “e-sigma” with covers complete material _ including explanation detail , summary , test formative , as well key answer with focus on solving problem. Teachers take advantage module This For give tasks Study independent to participant educate . At face face in class , the teacher plays a role as helpful facilitator _ participant educate collaborate , investigate concept , and finally find conclusion draft in a way independent . Purpose of service public This teacher can : 1) design device learning , incl module learning ; 2) carry out learning simulation with use tool help e-sigma; and 3) utilizing module media For increase literacy numeracy and strengthening profile Pancasila students . Training methods carried out Steps 1) identify teacher needs in matter learning ; 2) establish standard achievements in training ; 3) give training simulation with e-sigma; 4) evaluate achievement teacher's abilities in training ; and 5) do reflection over the training process that . Data obtained analyzed with use statistics descriptive . The result of devotion public This show that device resulting learning _ from training with the e-sigma LMS is valid, and its implementation in form simulation is effective and impactful potential increase achievement participant educate.

Keywords: digital learning, e- zigma, literacy numeracy, profile student Pancasila

INTRODUCTION

In the current generation Z era This will become worn If approach learning Still depend on stare advance conventional inside _ class . Currently _ individual Work with fast and necessary Study independently , often with _ support from social media network . Sadly No seldom We see that learning at school basics done _ in a way *on line* use social media networks Not yet give fast results _ expected . After do search more further , it turns out in context learning This use social media networks Still Limited to shipping task via email or WhatsApp group . In this process No There is significant interaction _ between teachers and students or between fellow students . The situation described the is experiences experienced by teachers at school base in the incorporated Semarang City area in Group Teacher Work (KKG). Through their KKG meeting has do discussion and parts big from they Actually has understand about learning *online* . However , the results from approach This Not yet reach desired hope . _ They have share task with student in form question job . Mostly _ delivery task done via email or *whatsapp* . Results of work assignments submitted _ often seen _ nice and neat , however majority from work the Actually No results from ability Study independent students , but rather assisted by other people such as parents or private tutors and others . In context This use social media networks happen in a way One direction without happen significant interaction . _

Because this is what teachers face difficulty in control what students do . . . Important For noted that in situation like This problems that arise it's not error students . This problem arise Because factors that make learning difficult , that can be covers inconvenience students , difficulties private , or constraint for other people (as explained by Dimiyati 2006) . On site learning , problems sort of This is normal thing . . Student need overcome problem This internally in the learning process . There are several possible factors _ influence learning students , incl habit learning , attitude to learning , motivation learning , level concentration learning , ability For process material learn , way keep results learn , and how they can show ability results Study them . All factor This is necessary things _ noticed by students in development ability Study them .

For overcome problems that have mentioned above , necessary _ searching for solution about how can teachers give facility to student For Study in a way independent with comfortable . Besides , it is necessary found way for students can stimulate interest they For Study in a way independent , esp through tasks provided _ in form module . In order reach objective This is the dedication team public want to help teachers in develop method learning with utilise *learning management system* (LMS) is called with e-Sigma. Activity This nature training started _ with preparations learning , esp preparation module .

this module designed in a way comprehensive , encompassing in -depth explanation , summary , test formative , as well key stressed answer _ solution problem , literacy numeracy , and profile Pancasila students . this module aim For possible student Study in a way independently , with hope that module the can push student For become more learner _ independent , incl in the process of learning , discussing with other people around them (such as parents or Friend peers) , and focuses on important concepts For understood .

Through initiative devotion here , team devotion offer assistance to teachers for increase professionalism they in plan and implement learning in accordance with demands that exist in the current era this . Accompaniment This focused on improvement literacy numeracy and reinforcement profile related Pancasila students with Pancasila. This thing done with create environment supportive learning _ literacy numeracy and provide shaped teaching materials module as product technology for the learning process . Implementation method activity solution This covers activity *Focus Group Discussions* , workshops and mentoring . Through training This time , teachers were invited For become example in implementation learning *on line* use *Learning Management System* (LMS) namely e-sigma and also in learning stare face . Learning process started with give assignments to students , which is encouraging they For Study in a way independent , understanding concepts , and overcoming problem . All task This explained in detail inside module learning . During meeting stare advance , the teacher arranges discussion For discuss results Study students who have they learn in a way independent .

The purpose of project devotion This is For help the teachers involved in the KKG achieves 2 things : 1) designing device learning to be entered to in e-sigma LMS for increase understanding student about Pancasila and skills literacy numerasiss , daa 2) implement learning simulation supported by e-sigma LMS effective To use strengthen profile student related Pancasila and improve ability literacy numeracy .

Devotion public This based on concepts encompassing theory _ teaching materials , which are tools that help teachers in the teaching process in the classroom . One _ teaching materials are module . The module defined by Anwar (2010) is material structured learning _ in a way structured and interesting , includes teaching theory , methods and tools possible evaluation _ used in a way independent For reach expected competencies . _

E-Learning with using e-sigma is A system leveraging learning _ technology information especially social media , as tool For implementation of the learning process teach . What's necessary emphasized is that *e-learning* No require exists meeting direct between educators and participants education (Adiansah , 2013). According to Nursalam /Efendi 92013), characteristics main in *e-learning* is his abilities For networked , possible fast repair , storage , access _ rework , distribution , and sharing material learning as well as information .

Devotion This is results implementation from study before . Related formation character Study students , research previously show characteristics This can improved through assignments (Mariah/ Sukestsiyarno , 2015), (Sukestsiyarno /Waluya, 2016), (Wulandari/ Sukestsiyaro , 2017), (Amalia/ Wuryanto / Sukestsiyarno , 2016). In context this , guiding student For strengthen characteristics study , like ability Study independence , desire know , or think critical is step necessary start _ taken For possible student overcome problem mathematics . In connection with readiness student in face problems , research Mali/ IOSnarto / Sukestsiyaro (2018)_ Fatonah / Sukestsiyanrno (2019) shows that students at the level school Already Ready For

responsible answer on learning independence and tasks learning push they For reach ability cognitive yng desired .

In implementation learning , the approach used possible participant educate Study in a way independent moreover first . Through assignments and materials learning provided _ through *e-learning* , such as modules that focus on solving problem . *Google classroom* used as a platform for learn draft that . For speed up understanding concept , communication interactive done through *zoom* . This is possible participant educate For prepare self with material base before participate in discussion and confirmation during stare face , okay in online and offline formats (El Seout et al , 2014), (Kinju et al , 2017).

METHOD

Devotion method This take form training for teachers who are members in community Group Teacher Work (KKG) Gajahmungkur area , Semarang. A total of 30 teachers participated in training this , which focuses on two aspects main , i.e increase literacy numeracy and strengthening profile student in Pancasila context . Training process involve series steps as following :

1. Identification Needs : Training started with identify teacher needs in the learning process . Teachers are invited For prepare device learning , planning objective learning , compiling teaching modules , as well prepare appropriate teaching materials .
2. Determine Standard Achievements : Expected achievements _ in training is teacher's abilities in produce device fulfilling learning _ standard validity . Validity device learning This tested by competent experts _ in field learning .
3. Practice Simulation : Teachers carry it out simulation learning with using social media and *Learning Management Systems* (LMS) such as e- zigma . After that , them apply learning This in situation real with help student use module as source learning .
4. Evaluation Achievement : Done evaluation to teacher's abilities in carry out learning as well as the resulting impact in learning in the field . Teacher success in apply learning and achievement student in reach completeness Study evaluated with use tests that measure level knowledge , understanding , and skills in development device learning before and after training .
5. Reflection : Final part from training is stage reflection , which involves use questionnaire For evaluate the extent of the teacher's experience in prepare device learning , carrying out the learning process , and evaluating results learning .

RESULTS AND DISCUSSION

Devotion public This shaped training held _ for affiliated teachers in community Group Teacher Work (KKG) in the Gajahmungkur area , Semarang. Training introduction aim For give description about the learning process with emphasis on drafting module Good through assignment preparation module nor use existing module _ available in *Learning Management System* (LMS). Training introduction This given to all over member of the KKG.



Figure 1. Training introduction



Figure 2. E-Sigma LMS display

Training learning designed in two stages , namely the first prototype and the second prototype .

First prototype focuses on validation device learning . In stages here , participants training together with teacher team , start plan device learning , organizing objective learning , and developing module as well as teaching materials that will be used . Involving discussion _ election material learning , context , and use module as a learning medium become part important in planning this . Training materials This take focus on the topic learning mathematics .

Validity Results Device Learning covers channel objective learning , teaching modules , and modules That yourself . Device learning This pass stage validation carried out by a validator. The purpose of validation and assessment device learning This is For evaluate suitability and validity device the so that can used effective in the learning process . Goal flow learning that has been done arranged covers material Appropriate math _ with level each teacher's class . Goal flow learning This detailed in five meetings , loading distribution material , as well activity learning that is based on use module as means main . The details be delivered in learning program design , namely teaching module . This teaching module emphasize measurable goals _ related with enhancement literacy numeracy and profile Pancasila students .

Activity learning detailed start from utilizing tasks _ module until activity special , fine through learning *on line* nor stare face . this module designed in a way comprehensive , encompassing examples relevant implementation _ with life daily and focused on solutions problem . This thing give chance to student For Study in a way independent . For help student in solve problem , module provide hint (*hint*), even test formative is also equipped with key answer .



Figure 3. Project Pancasila Profile

Device inclusive learning _ channel objective learning , teaching modules , and modules the has go through a validation process by someone expert , and accept input For increase . Criticism and suggestions for improvement For channel objective learning and teaching modules especially related with content material , structure activity learning , as well assessment . Goal flow learning experience more revisions _ general in matter presentation , temporary experience teaching module more improvements _ detailed , incl adjustment evaluation For reflect goals that have been set in each teaching module . Improvements to the module more emphasizes order _ delivery information for more structured , and includes enough examples _ before student given task involving independence _ solution problem .

After done repair in accordance with expert advice the done evaluation validation with results can seen in table 1.

Table 1: Learning Device Validation Results

nt	Compone	Score			Avera ge Score
		Validator 1	Validator 2	Validato r 3	
pemb module	Goal flow	90,0 %	83,5%	85,7 %	86,4 %
	Teaching	91,0 %	87,8 %	90,7%	98,8 %
	module	90,5%	82,3 % _	90,5%	87,8 %

Devices that have designed acknowledged as valid , and p This can seen from the average value of validation by a number experts who _ significant fulfil " excellent " criteria based on the indicators listed in sheet validity development device . Prototype implementation for two implementations simulation and learning to field . After device learning confirmed as valid, step next is give to simulation teachers in apply learning . They practice through use of the E- Zigma LMS moreover first . Activity This works as example for teachers, helpful they in apply learning based module with more good in the environment learning they are in the field .



Figure 4. Module display in E-Sigma

The result of experiment teaching carried out by internal teachers prototype second become contribution important in develop version end environment learning . Dedication process through training This involve implementation design that has been arranged in a model school with help module . Version end or experiment learning in the field carried out by the participating teachers training for each student .

Following is results from final version like seen in Figure 5.

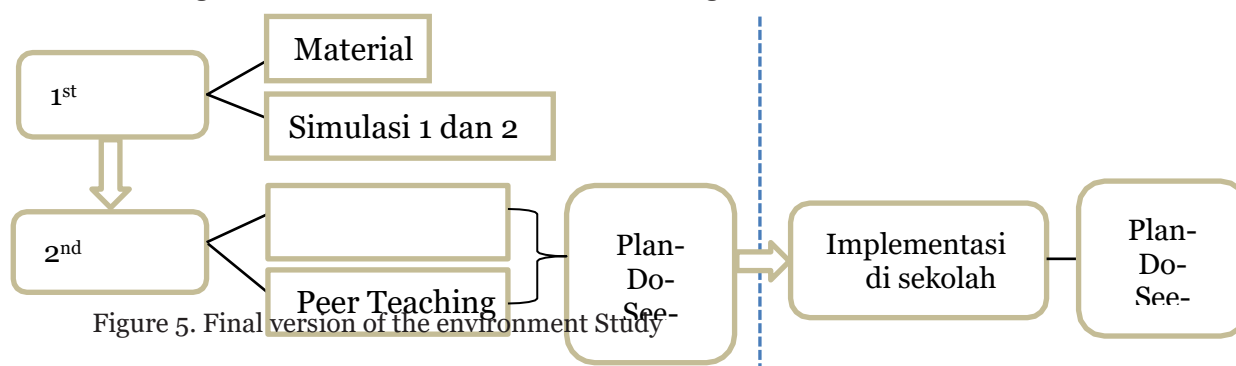


Figure 5. Final version of the environment Study

On prototype second , training simulation describe high commitment _ from internal teachers operate learning . Made teachers respondents with thorough teach in accordance with design resulting device _ from prototype first . Temporary that is , the student becomes respondents role with OK , show Spirit in Study through module , and participate active in discussions and sessions ask answer when There is meeting stare face .

Next , the teachers carry it out learning in a way independently at their respective schools for apply existing learning models _ tested try in simulation . After operate learning , the teachers reported results evaluation their learning _ executor . Report This indicated that part big student more active , shows ability Study independent , and capable understand draft with help module . Additionally , results _ evaluation learning show that part big student reach minimum standards have been set .

CONCLUSION

Development process learning in framework devotion public produce environment learning through two prototype stages . First prototype succeed direct teachers to compile device learning that uses module as tool help . Meanwhile the second prototype is stage implementation device learning it's in the environment school .

The result of development the can explained as following :

1. Implementation of the first prototype has succeed produce device learning in eye lesson mathematics that uses module . Device This covers design channel objective learning , teaching modules , and modules that are declared valid based on evaluation by experts .
2. Implementation of the second prototype involve implementation device learning in the field with started from simulation . The result of stage This show that the teachers are very enthusiastic in operate learning with good . When teachers implement learning This is in each school , the impact is visible is enhancement participation student in learning , showing ability Study independence , and results evaluation learning show that part big student reach satisfactory score _ minimum standards have been set .

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SIGΣA

Home

Log in



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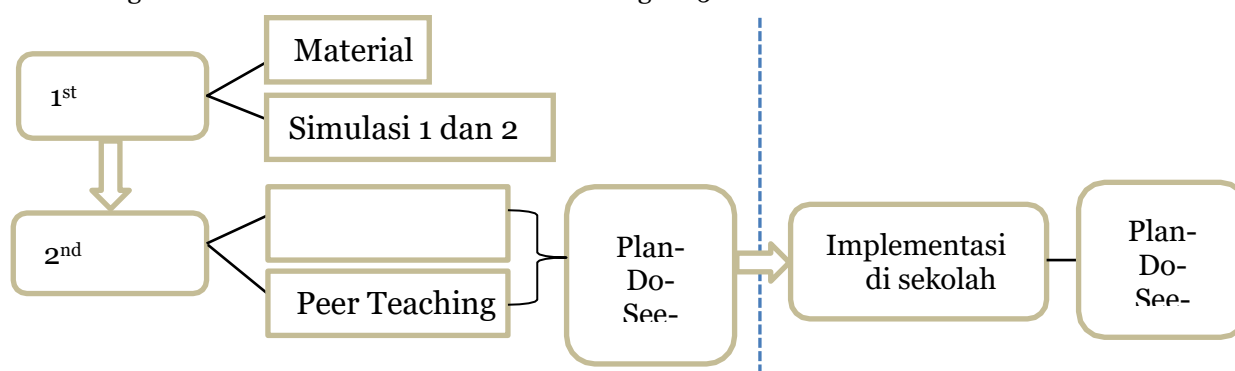


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