Mobile Seamless Learning as Effort Strengthening Digital Literacy

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Abstract:- **This article aim for describe implementation of mobile seamless learning for strengthening digital literacy . Ability digital literacy must owned by participant educate . Stages in digital literacy includes digital competence , digital use and digital transformation . one _ draft new that appeared in revolution learning with progress technology is *mobile seamless learning* . Type learning this involve continuity experience study through technology that doesn't bound by environment , space and time . With the teacher 's mobile seamless learning model capable designing optimal learning . *Mobile seamless learning* expected could facilitate the learning process for all among . Beside _ that *mobile seamless learning* could give solution problem equity and limitations access education . With thereby mobile *seamless learning* designed , developed , utilized , managed and evaluated with good expected could play a role in strengthening participant digital literacy educate.**

Keywords:- *Mobile Seamless Learning , Digital Literacy , Smartphone.*

I. INTRODUCTION

In context Indonesian education , it is necessary existence current development technology through change system and pattern learning carried out in schools and colleges high . The digital era in the world of education the more increase quality learning through use of digital media for accept information scientific and helpful participant educate reach destination learning . Digital media helps serve Theory learning by effective , contextual and audiovisual so that learning could in progress interesting , interactive and participatory.

In the 21st century , the emphasis is on learning for destination creation the atmosphere and habits of the learning process that occurs by natural . Existence *smartphone* as one _ form continuous mobile technology continue and develop implementation outside learning _ context . In other words , ongoing learning when just , anywhere without limit time and restrictions room for create meaningful (Ulfa, 2014)learning . _

Learning *mobile seamless learning* defined as enabling learning _ participant educate for study when any , anywhere , fine that in formal and informal learning with device *mobile* (cellular) (Milrad, et al., 2013).

Chan et al.,(2006) define *seamless learning* is continuity learning with various scenario . All tagged activity _ with continuity experience study through context different learning _ use technology *mobile* (mobile) that can conducted when only and where course .

Basically _ *mobile seamless learning* , providing opportunity to participant educate for work same and interact with friend colleagues and sources learn what you can conducted through virtual *worlds* .

Skills literacy become the main program that must be held by sustainable . Literacy no limited to activities write and read , but activity strengthening knowledge knowledge and skills , so that could think critical , communicate by effective and efficient in various situation . Besides that capable develop ability and participate in life social .

More digital literacy focus on effort integrate Skills find , evaluate , implement , share a Theory through use technology and the internet (Rusman, 2014). With progress technology information make description Theory digital based to diverse and abundant , so that learning digitally based _ applied . Activity still learning _ dominated by learning models conventional can make use of digital media maximum (*digital-age literacy*).

II. METHOD STUDY

Approach used _ is approach qualitative with To do studies literature that is studies research whose data sourced from materials bibliography . Collected data then classified and analyzed based on technique *content analysis* , that is something data analysis performed by careful , objective , and systematic (Muhadjir, 2000). The process of data analysis using logic inductive and deductive by varies , as is common used in study qualitative so that expected capable describe and find perspective new complete and whole _ about *mobile seamless learning* as effort strengthening digital literacy .

III. DISCUSSION

A. Mobile Sealees Learning

Development technology change paradigm education , development learning already outside _ context learning traditional by general . So that challenge education in the digital age is not only focus on content or material to be studied however develop on how and when learning the happen .

Learning could walk fluent with adapt device learning and context learning , participants educate accept experience learn the same , regardless from environment participant educate . Learning *mobile seamless learning* refers to integration experience study from various dimensions in context formal and informal learning , learning individual and social , learning through learning stare advance direct or online (Muyinda, Mayende, & Kizito, 2015). Learning model *mobile seamless learning* supported by several device mobile on every learning . Learning could held when and where just without bound space and time .

Mobile seamless learning defined as *soft* learning , learning done Keep going continuous and not limited inside _ class , but also outside class , isn't it only in formal and informal (Ng & Nicholas, 2013)schools . While Zhang and Looi (2011), states that learning *mobile seamless learning* , learning occur because effort both of them individual and collective in all different context . _ Learning *seamless learning* based on device *mobile* in accordance with development of the times.

Technology mobile create room easy learning , continuity _ experience study various scenario or context , can upgraded with combine technology and devices soft in learning . Recent studies on borderless learning has expanded from teacher-facilitated classrooms or outdoor learning to develop students independently .

Development technology make smartphones have ability like computer supported by an operating system , including : *Android* , *Windows mobile* , *iOS* , *Blackberry OS* , *Symbian* , and others. According to Looi et al., (2009), portability and flexibility device mobile have potency big support change in education . Educator - centered learning _ Becomes participant - centered learning _ educate . In Thing this educator Act as moderator and partner in learning .

Wong and Looi (2011), create 10 dimensions *mobile seamless learning* (MSL) , namely :
MSL 1: Includes formal and informal learning
MSL 2: Includes personal learning or _ _ personal and social
MSL 3: Lessons that happen cross the place or location
MSL 4: Lessons that happen cross time
MSL 5: Access knowledge or source power is everywhere based *ubiquitous* (combination from *context-aware learning* , *augmented reality learning* , and access by *ubiquitous* to source online - based learning or *online*)
MSL 6: Covering the digital and physical world
MSL 7: Usage combined from a number of type device
MSL 8: Switch between a number of tasks (seamless and fast switching between some learning tasks like *data collection* , *analysis* , and *communication*)
MSL 9: Synthesis knowledge (knowledge) before and now as well as *multiple levels* from skill from Skills thinking and learning multidisciplinary)
MSL 10: Includes *multiple pedagogical* or activity model learning (facilitated by educators).
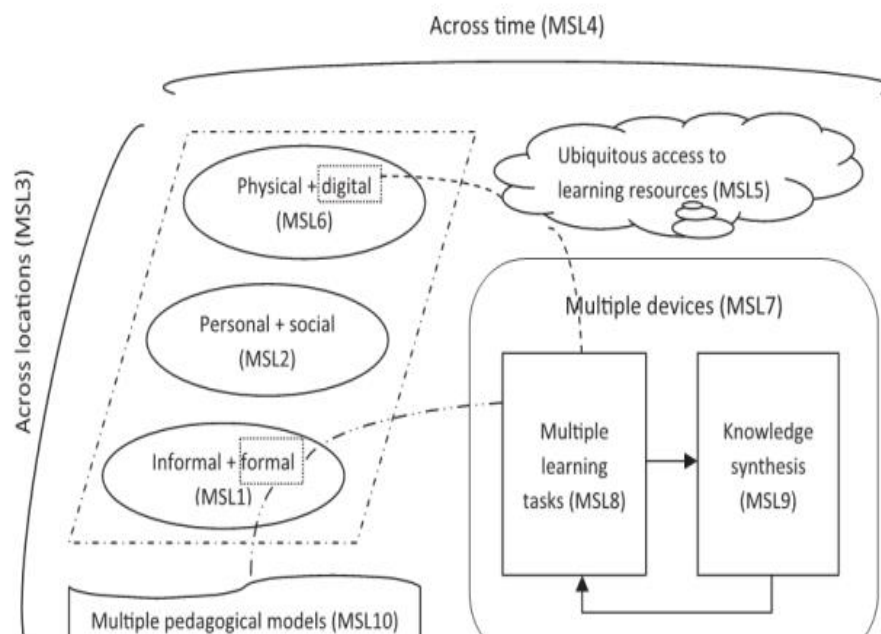

Fig 1. Visualization of 10 Dimensions *Mobile Seamless Learning* (Wong & Looi, 2011)

Visualization *mobile seamless learning* (MSL) in the image above is description ecology from *mobile seamless learning* that puts participant educate as center study or *learner-centric* . Participant - centred learning _ educate means they as center producer knowledge that occurs in various context in multidimensional room study . *Mobile seamless learning* no only study where only and when only ,

however study is what happened _ Keep going continuously along context .

Learning model *mobile seamless learning* could help the effectiveness of the learning process , according to with research by Hamid et al., (2019), which states that the learning model *mobile seamless learning* impact significant on ability mastery draft participant educate . Besides that

study Safiah et al. (2020), who developed the learning model *mobile seamless learning* based project that integrates formal and informal learning in learning eye Islamic Economics course , using the ADDIE model. The result is a learning model developed *mobile seamless* learning Fulfill requirements for applied in learning .

Learning will easy understood by participants educate if supported with using interesting learning media . _ With increasingly technology _ increase so that apply a application learning for create a learning process that is fun , interesting , interactive and effective without limitation space and time (*mobile seamless* learning) give very good effect .

B. Digital Literacy

Digital literacy is search , rate , use , share and create content or Theory use technology information and the internet. More digital literacy focus on effort integrate skill , find , give rating or evaluate , implement , share , and create content or Theory through use technology and the internet. Digital literacy is not only limited mastery technology computer and skills Internet use , but more large again that is mix and match between " literacy " and "digital" (Rusman, 2014). Digital information is symbol data representation , while literacy is about ability read , write and think critical .

Digital literacy is a something ability in understand and use various form information , so that literacy no only ability read but understand the meaning contained . Digital literacy is not only ability push knob in operate digital media but rather on mastering ideas about use of electronic media .

Ability digital literacy is ability in understand and use technology digital information online effective and efficient in various situation , includes activity study , work and life everyday . According to Bawden (2001), digital literacy is associated with Skills technical access , compose , understand , and disseminate information .

Martin in Koltay (2011), describe digital literacy is awareness , attitude , and ability individual in use digital tools and facilities _ appropriate for identify , access , manage , integrate , evaluate , analyze , and synthesize source digital power , build knowledge new , create media expression , and communicating with other people, in context situation life certain, for allow action constructive social , and contemplating process chain . In accordance with opinion Gilster (2017), digital literacy is ability for understand and use information in various form as well as various very broad source through device computer .

Spires and Bartlett (2012), describe the intellectual processes involved with digital literacy becomes three category that is find and consume digital content , create digital content, and communicating digital content . The three processes often found in life everyday .

Approach that can carried out on digital literacy includes two aspect , that is approach conceptual and operational. Approach conceptual focus on aspects development cognitive and social emotional , while approach operational focus on ability technical media use .

Principle development digital literacy according to Mayes and Fowles in Ministry of Education and Culture (2017), there are 3 levels in ability digital literacy , as in the picture following :
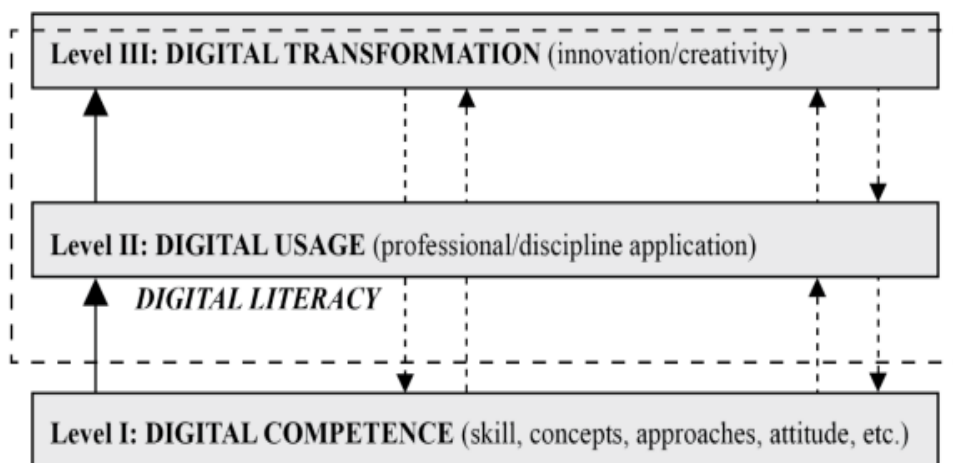

Fig 2. Principle Development Digital (Kemendikbud, 2017)Literacy

Principle development digital literacy according to Mayes and Fowler in Ministry of Education and Culture (2017), is tiered . There is three levels of digital literacy . First , digital competence which includes skills , concepts , approaches , and behaviors . Second , digital use which refers to the application of related digital competencies with context certain . Third , digital transformation that requires creativity and innovation in the digital world.

Indicator digital literacy in school includes class base , cultural base schools , and, community bases . Ministry of

Education and Culture (2017), explain indicator digital literacy as following :

1. Base class
a. Implementation digital literacy by the head schools , educators , and staff education .
b. Intensity implementation digital literacy in activity learning .
c. Understanding head schools , educators , staff education , and participants educate in use of digital media and the internet.

2. Cultural base school
a. Quantity and variety source digital -based reading and media .
b. Frequency loan book digital themed .
c. Amount activities at school in utilise technology and information .
d. Amount presentation information from school using digital media or web sites .
e. Amount policy from school related use and implementation technology , information , and communication in the environment school .
f. Utilization and implementation technology , information and communication in Thing service school .

3. Community base
a. Amount supporting facilities and infrastructure _ digital literacy in schools .
b. Involvement of parents , community , and institutions in development digital literacy .

C. Mobile Seamless Learning As Strengthening Digital Literacy

Technology information and communication be one _ support in organize education . Learning without limit is approach continuous learning _ with experience combined learning _ location , time , technology and settings social with device mobile as the median .

Development technology make it easy for users in access information anytime and anywhere . Amount available information _ create users _ Becomes confused in find appropriate information _ with his needs . With a learning model *mobile seamless learning* give experience to participant educate for study by *continue* . Participant educate use *smartphone* for learn various context learning , so expected participant educate could use digital technology and have skills in operate technology internet based .

Participant educate moment this known as generation intersecting *digital* native with various social media content . Participant educate only capable access digital media without balance with ability get information for development self . The ability in question is digital literacy . With ability digital literacy , participants educate no only understand and use source information but could use other digital devices that support .

Digital literacy is a skills (*life skills*) no only involve Skills in utilise device technology , information , and communication , but also socializing , ability in learn , and

have attitude , thinking critical , creative , and inspirational as digital competence .

Digital literacy required in implementation appropriate online learning needs participant educate in access the internet for support success learning . With existence enhancement Skills participant digital literacy educate will show creativity and innovative they in support learning , because that , needed ability high digital literacy so that the utilization of technology information and communication in online learning can walk by effective (Zahroh and Sholeh 2022) .

Educator need realize no only what to learn students , but also access they to technology certain , how , where and why they learn and level Skills their digital literacy (Krull and Duart 2017) . There is a growing interest in role and adoption device mobile in learning open and distance far away .

Learning with take advantage of the internet or cell phone as a learning medium expected could Becomes alternative teachers and lecturers for empower Skills digital literacy . Impact academic learning the expected build culture digital literacy . (Masitoh 2018) . Use of learning platforms interactive smart developed _ by appropriate for ecosystem *seamless learning* could increase digital capabilities (Pornpongtechavanich and Wannapiroon 2021) . Components digital literacy _ with maximum allow happening learning along life (Candra and Suryadi 2020)

IV. CONCLUSION

Ability digital literacy is ability in understand and use technology digital information online effective and efficient in various situation . There is three levels of digital literacy . First , digital competence . Second , the use of digital. Third , digital transformation . *Mobile seamless learning* aim for reach synthesis knowledge , motivation for grow habit mind and skills learning without boundary between _ student 21st century . With Support learning through *mobile seamless learning* , providing opportunity to participant educate for work same and interact with friend colleagues and sources learn what you can conducted through virtual *worlds* . Participant learn is also able for explore , identify , and utilize opportunity without possible limit _ offered outside _ room life everyday .

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