

The Utilization of Smartphones in The Digital Era as Interactive Learning Tools for Sociology Lessons in High School.

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ABSTRACT

The improvement of Technology and Information encourages diverse residing factors to open up for the advantages of the net in coaching and gaining knowledge of activities. Thereby, the academics will not be able to get admission to the net as a medium to supply the cloth to guide students' capacity to adsorb and recognize the lessons. This research makes use of a descriptive qualitative studies method. A social research scholar studied this situation in elegance XI High School with 149 college students. Data series for these studies is survey that additionally interviews. Data evaluation is achieved on four levels: data analysis, data reduction, data presentation, and conclusions. The conclusions of this research display that there had been high-quality possibilities for using smartphones withinside the virtual technology in gaining knowledge, especially in sociology training in High School. These possibilities are the utility of net-primarily based cellular gaining knowledge. It is understood that the whole college students have additionally frequently used smartphones for social media, games, etc. The end of this study is net media is a high-quality possibility to apply the cellphone withinside the virtual technology as interactive gaining knowledge of device for sociology training in excessive school.

Keywords: Digital gaining knowledge, Internet media, Mobile, Learning, Sociology Learning, Utilization of Smartphones.

INTRODUCTION

The COVID-19 pandemic has now no longer best impacted better schooling worldwide. However, it additionally introduced many demanding situations to the better schooling community (Bhagat & Kim, 2020). To help better schooling establishments expand and practice generation for the shipping of pedagogy, better schooling establishments need to shape partnerships with net issuer groups and global better schooling establishments to undertake modern technology to convert different face-to-face and traditional pedagogical practices into e-studying (Tilahun, 2021). During the pandemic, online schooling has become broadly used to update conventional schooling worldwide (Zhaohui Y, et al., 2022). As a result, the general lockdown has led academic establishments to apply online techniques in short motion to make certain continuity of studying for college students because conventional face-to-face studying isn't viable in this exceptional situation (Ambika S et al. 2021).

Lederman (2020) rightly said that due to the COVID-19 disaster, teachers and students each locate themselves in a scenario in which they sense forced to include the virtual world, educational revel in as a sumum bonum of the web coaching-getting to know the process. On the opposite hand, novices' desire for abilities and technological know-how cannot be delayed. So, instructors and stakeholders must consider getting to know designs that also follow authorities' fitness protocols and offer the most knowledge. Online getting to know turns into the primary manner to do the coaching and getting to know the process of the path with various shortcomings.

In the digital era, smartphones are the primary tool for studying activities (Barnes, Pressey, & Scornavacca, 2019; Muswita et al., 2018). Almost all mobile offerings followed for educational use. It calls for a few flexibilities, in particular on the part of instructors, to apply cellular studying modules in education and encourage students to apply those modules, even as now no longer specialize in additional restrictions, limitations, and workloads, however alternatively at the blessings that those additives can provide to be used in learning (Brigit & Alptekin 2013). However, numerous matters make cellular getting to know ineffective.

Online studying is accomplished through instructors using WhatsApp, which is used as an instructor's media in handing over materials or sending assignments to students (Dewi, 2020). Students additionally feel saturated with online studying, and they may be uninterested in the supply of assignments each day. Students also emerge as lazy in doing tasks, which makes the gathering of tasks very overdue order, making it challenging for teachers to do assessments (Hilna, Lutfi & Din Azwar, 2020). Teachers have no longer been capable of maximizing using smartphones to assist students' capacity to recognize studying substances (Cecep, Mutaqin, & Pamungkas, 2019; Ngabekti, Prasetyo, Hardianti, & Teampanpong, 2019; Sunismi, 2015). One of them is a lesson that can stimulate students to expand social wondering capabilities (Pratiwi, 2017). Without necessary wondering capabilities, the practical application will display tough students and practitioners will discover themselves stressed through maximum theories or the complexity of using ideas to conditions that arise in practice. (Ann & Robert, 1997). However, the significance of critical wondering capabilities in sociology studying cannot be optimized. This may be visible through statement activities done at some point during three conferences withinside the studying method withinside the classroom by the Zoom meeting platform & google meet video conference. Along the statement, information turned into acquired that in the gaining knowledge method, the teacher handiest centered on handing over the material verbally, endured by the supply

of duties in keeping with the material delivered. Subsequently, students are requested to submit the tasks to the teachers within like scientific papers with no given steerage in doing tasks, and the absence of versions in tasks that make students keep in mind the teacher's assignments to be only formalities.

Some professionals on Critical Thinking outline essential thinking as "the intellectual disciplinary method of actively and elegantly conceptualizing, applying, analyzing, synthesizing, and comparing information collected from or generated by observation, experience, reflection, reasoning, or communication, regarding to manual ideals and actions" (Scriven & Paul, 2007). Critical thinking is known as metacognition (Tempelaar, 2006) and also method of "considering thinking" as described and supposed by (Flavell, 1979). These studies could be crucial because by the usage of smartphones, teachers could create innovative and modern learning. This learning could be simpler for students to recognize the learning material and inspire them to learn. Paint collectively to enhance reason and critical thinking to aim the learning goals. MGBL in learning is an opportunity to enhance those abilities (Shiow-Fern et al., 2021). Thus, the mobile era which includes smartphones may be an appropriate media to assist learning activities. This research goal is to discover possibilities for smartphone use within the digital era to facilitate the learning method of students, specifically in sociology subjects.

LITERATURE REVIEW

A variety of devices are used and m-learning solutions are offered by companies and universities. Implementing mobile services in education in the form of mobile learning modules is an innovative process at many levels of higher education (Dykes and Knight, 2012). Mobile learning is learning that is accomplished with the use of small, portable computing devices. Mobile learning can be used to enhance the overall learning experience of students and teachers. Through mobile support, learners' throughput rates might be improved and the quality of the learning experience enhanced (Brigit & Alptekin 2013). Critical thinking abilities was so essential due to the fact they permit students "to efficiently cope with social, scientific, and realistic issues" (Shakirova, 2007). As simple as students who can assume significantly are capable of remedying issues efficiently. Just having an understanding of information is not always sufficient. To be powerful within the workplace (and in their private lives), students need to be capable of remedying issues to make effective choices in different phrases they need to be capable of assuming significantly

The same research has been conducted by Taufiq Subhanul Qodr (2021) which discusses "Opportunities for Using Smartphones in the Digital Era to Facilitate Students in Learning Sociology in High Schools". The result of the study is that there is a great opportunity to use smartphones using the MGBL method. While the difference from the research is the teaching method in this study is mobile learning to improve critical thinking skills.

RESEARCH METHOD

This research makes use of qualitative descriptive methods. Using this method can discover possibilities for students to apply smartphones within the digital technology that may be applied for learning strategies that may be defined in step with actual and interactive problems. The identity level starts with observations aimed at reading the desires of research data. Then the researcher spreads the questionnaire and procedures of the research data, and the effects may be provided descriptively. The concern on this

look turned into class XI of Nguter High School with a complete 149 students. The object of this research is the usage of Nguter High school students' smartphones withinside the digital era. The methods of information collection in this observation are surveys and interviews. Data evaluation is performed descriptively with a percent of the identity of smartphone use opportunities to make it less complicated to learn sociology.

There are four stages of analysis carried out which are (1) data collection, (2) data reduction, (3) percentage data, and (4) conclusions. Data collection includes the usage of questionnaires and interview guidelines. The reduction of data on this observation targets to clear out data targeted on central data/findings received withinside the field. Data presentation was used to show descriptive data from the effects of the shared questionnaire. Then the conclusion stage is the very last step this of research to conclude the opportunity of smartphone use withinside the digital era, which pursuits to ease students in learning sociology. The tool used is a questionnaire that includes four signs spread throughout 20 questions. These signs are students' responses concerning ownership, period of use, desires, and school rules in the face of the excessive use of smartphones within the learning technique. Expert validators seek advice from the validity of the research instruments earlier than questionnaires disseminated to the research subject.

RESULTS

The observation concerned 149 respondents from Nguter High School students, Sukoharjo Regency, Central Java Province. The results confirmed that numerous possibilities to apply smartphones withinside the digital era withinside the effectiveness of the studying process, specifically to created less complicated for students to learn sociology in High School. Data concerning the smartphone possession of high school student Nguter can be seen in Table 1. Based on Table1., its miles regarded those 31 Nguter High School students are excellent at operating smartphones, and 73 Nguter High School students are well-operating smartphones technological gadgets that assist them in finishing numerous assignments. As a technology tool, this is pretty bendy as it is simple to hold anywhere, and students frequently spent plenty of time using smartphones. Table2 was indicated through data that the length of smartphone uses among students, most of it reaches more significant than five hours a day.

Table 1. Smartphone Operating Capabilities

Category	Students
Excelent	31
Good	73
Average	35
Poor	7
Very Poor	3
Total	149

Table 2. Duration of using smartphone

Duration	Students
>5 hours	95
3-5 hours	47
1-3 hours	7
Total	149

Based on Table 3, it may be seen that 40 student's state that using smartphones is allowed in teaching and learning activities. Nevertheless, 27 students said that it is prohibited to apply smartphones in learning activities. In phrases of accomplishment, this coverage still relies upon every subject teacher as 82 students said that the school permits using smartphones for the learning process however is restricted to certain subjects. However, most school regulations supported the learning process usage of smartphones.

Table 3. The Policy of using smartphone

Policy	Students
Allowed	40
Prohibited	27
Certain subjects	82
Total	149

DISCUSSION

The improvement of technology is accelerating, and technology performs a crucial role in human life, likewise with the sector of education. Education is taken to consideration essential due to its role in growing the capacity and ability of human resources. Advances in technological innovation make learners acquainted with advanced equipment (Raja & Nagasubramani, 2018). The primary hassle in integrating academic information technology these days is designing teaching activities for digital learning and using technological equipment flexibly (Lin et al., 2017). Through mobile support, learners' throughput rates might be improved and the quality of the learning experience enhanced (Brigit & Alptekin 2013).

Mobile learning is a learning model where in its activities using a smartphone or mobile phone as a medium of information distribution. We cannot only learn in the classroom, but in learning activities we can learn (Ramadhana, Saida & Dedi, 2018). Almost any mobile service can be adopted for educational use. It requires some flexibility, mainly on the part of the instructors, to use mobile learning modules in education and to motivate students to use these modules, while not focusing on the restrictions, limitations, and additional workload, but rather on the benefits that these components could offer for use in education (Brigit & Alptekin 2013), success (C. H. Su & Cheng, 2015), and pleasure which is a destiny trend for education (Huang et al., 2017; Lay, A. & Osman, 2018). When applied in sociology learning, Mobile Learning is used as an opportunity learning medium that make it less complicated for students to learn sociology. During this time, instructors simplest rely upon published books, presentation media, and educational worksheets to assist the learning process in the classroom in order that the effect of learning interest and student fulfillment decreases.

Another aspect that opens possibilities for the implementation of learning the usage of smartphones is school regulations (Rorita, Ulfa, & Wedi, 2018). This may be visible from the student's response which states that 55.70% of teachers are permitted to apply smartphones in certain subjects. Additionally, among 26.20% of students said that once taking part in learning activities, students are permitted to apply smartphones. Accordingly, this research may be so crucial as a foundation for teachers in getting ready for digital-based learning.

The outcomes of this research display that there are incredible possibilities using smartphones in the digital era in the teaching and learning technique. Mobile Learning could make it simpler for students to study sociology because the material is added in a more youthful and exciting way by encouraging energetic and innovative students. Use technology withinside the studying process. Thus, it is able to enhance student fulfillment to get to understand what may be used as a tool in learning (Ramadhana, Saida & Dedi, 2018). Mobile Learning may be a modern learning media withinside the digital age. This targets to make it simpler for students to do learning as an attempt to form advanced human resources.

CONCLUSION

The outcomes of this research show that withinside the teaching and learning technique, there are excellent possibilities withinside the usage of smartphones withinside the digital era, mainly in sociology lessons in High School. This could be a possibility for teachers to expand learning media. Mobile learning is a possibility for the usage of smartphones that may facilitate students in sociological learning more actively, creatively, and innovatively. This cannot be divided from the improvement of technology and information and school guidelines that permit students to apply smartphones withinside the learning process according to the settlement with teachers.

REFERENCES

- Barnes, S. J., Pressey, A. D., & Scornavacca, E. (2019). Mobile ubiquity: Understanding the relationship between cognitive absorption, smartphone addiction and social network services. In *Computers in Human Behavior* (Vol. 90). <https://doi.org/10.1016/j.chb.2018.09.013>.
- Basic, G. S. (2020). Analysis of The Learning Process in the Network (DARING) during the Covid-19 Pandemic in Elementary School Teachers. *Journal basicedu*. 4(4), 861–872. <https://doi.org/10.31004/basicedu.v4i4.460>
- Bhagat, S., & Kim, D. J. (2020). Higher Education Amidst COVID-19: Challenges and Silver Lining. *Information Systems Management*, 37(4), 366–371. <https://doi.org/10.1080/10580530.2020.1824040>
- Cahyana, U., Paristiowati, M., Savitri, D. A., & Hasyrin, S. N. (2017). Developing and application of mobile game based learning (M-GBL) for high school students performance in chemistry. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(10), 7037–7047. <https://doi.org/10.12973/ejmste/78728>
- Chung, C.-J., Hwang, G.-J., & Lai, C.L. (2019). Are view of experimental mobile learning research in 2010-2016 based on the activity theory framework. *Computers and Education*, 129, 1–13.
- Crompton, H. (2013). A historical overview of M-learning: Toward learner-centered education through the study of recent histories. In *Handbook of mobile learning* (pp. 41–52). Routledge.

- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-development inquiry. *American Psychologist*, 34, 906–911.
- Goddess, W. A. F. (2020). The Impact of Covid-19 on the Implementation of Online Learning in Elementary Schools. *Educative: Journal of Educational Sciences*, 2(1), 55–61. <https://doi.org/https://doi.org/10.31004/edukatif.v2i1.89>
- Hakak, S., Noor, N. F.M., Ayub, M.N., Affal, H., Hussin, N., ahmed,E., etal.(2019). Cloud-assisted gamification for education and learning—recent advances and challenges. *Computers & Electrical Engineering*, 74, 22–34.
- King, R., & Nagasubramani, P.C. (2018). Impact of Modern Technology. *Journal of Applied and Advanced Research*, 3, 33–35. https://doi.org/10.4324/9780203168899_chapter_10
- Lay, A. N., & Osman, K. (2018). Developing 21st century chemistry learning through designing digital games. *Journal of Education in Science Environment And Health*, 4(1), 81-92.. <https://doi.org/10.21891/jeseh.387499>
- Lin, M. H., & Chen, H. G. (2017). A study of the effects of digital learning on learning motivation and learning outcome. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(7), 3553-3564. <https://doi.org/10.12973/eurasia.2017.00744a>
- Mengistie, T. A. (2021). Higher Education Students' Learning in COVID-19 Pandemic Period: The Ethiopian Context. *Research in Globalization*, 3, 100059. <https://doi.org/10.1016/j.resglo.2021.100059>
- Mumm, A.M., & Kersting, R.C. (1997). Teaching critical thinking in social work practice courses. *Journal of Social Work Education*, 33(1), 75–84. <https://doi.org/10.1080/10437797.1997.10778854>
- Muswita, Utomo, A.B., Yelianti, U., & Wicaksana, E. J. (2018). Development of Mobile Learning-Based E-Books on Plant Structure Courses. *Biology Education*, 11, 93–104. <https://doi.org/10.20961/bioedukasi-uns.v11i2.23814>.
- Oberer, B., & Erkollar, A. (2013). Mobile learning in higher education : A marketing course design project in Austria. *Procedia - Social and Behavioral Sciences*, 93, 2125–2129. <https://doi.org/10.1016/j.sbspro.2013.10.177>
- Perini, S., Luglietti, R., Margoudi, M., Oliveira, M., & Taisch, M. (2018). Computers in Industry Learning and motivational effects of digital game-based learning (DGBL) for manufacturing education – The Life Cycle Assessment (LCA) game. *Computers in Industry*, 102, 40–49. <https://doi.org/10.1016/j.compind.2018.08.005>
- Pimmer, C., Mateescu, M., & Grohbiel,U. (2016). Mobile and ubiquitous learning in higher education settings: A systematic review of empirical studies. *Computers in Human Behavior*, 63, 490–501.
- Pratiwi, P. H. (2017). Development of HOTS-Oriented Sociology Learning Assessment Course Modules. *Educational Horizons*, 36(2). <https://doi.org/10.21831/cp.v36i2.13123>.
- Primary, R. A., Ulfa, S., & Kuswandi, D. (2018). Mobile Learning Based Game Based Learning Math Lessons Principals Build Flat Side Space. 771–777.
- Qodr, T. S., Efendi, A., & Musadad, A. A. (2021). Opportunities for Using Smartphones in the Digital Era to Facilitate Students in Learning Sociology in High Schools. 5(2), 263–271.
- Rorita, M., Ulfa, S., & Wedi, A. (2018). The development of interactive multimedia based on mobile learning is the subject of the development of atomic theory of chemistry subjects class x hapless panjura high school. *JINOTEP (Journal of Innovation and Learning Technology) Study and Research in Learning Technology*, 4(2). <https://doi.org/10.17977/um031v4i22018p070>.

- Selvaraj, A., Radhin, V., KA, N., Benson, N., & Mathew, A. J. (2021). Effect of pandemic based online education on teaching and learning system. *International Journal of Educational Development*, April 85, 102444. <https://doi.org/10.1016/j.ijedudev.2021.102444>
- Scriven, M., & Paul, R. (2007). Defining critical thinking. *The Critical Thinking Community: Foundation for Critical Thinking*. Retrieved January 2, 2008, from http://www.criticalthinking.org/aboutCT/define_critical_thinking.cfm
- Shakirova, D.M. (2007). Technology for the shaping of college students' and upper-grade students' critical thinking. *Russian Education & Society*, 49(9), 42– 52
- Shilo, crazy. & Ragonis, Noa. (2017): A New Approach to High-Order Cognitive Skills in Linguistics: Problem-Solving Inference in Similarity to Computer Science, *Journal of Further and Higher Education*, DOI:10.1080/03098777X.2017.1361515
- Su, C. H., & Cheng, C. H. (2015). A mobile gamification learning system for improving the learning motivation and achievements. *Journal of Computer Assisted Learning*, 31(3), 268–286. <https://doi.org/10.1111/jcal.12088>
- Tempelaar, D. T. (2006). The role of metacognition in business education. *Industry and Higher Education*, 20(5), 291–297
- Yin, Z., Jiang, X., Lin, S., & Liu, J. (2022). The impact of online education on carbon emissions in the context of the COVID-19 pandemic – Taking Chinese universities as examples. *Applied Energy*, 314(March), 118875. <https://doi.org/10.1016/j.apenergy.2022.118875>