# Learning Quality Management: Byod And 4c Skills At Higher Education

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## ABSTRACT

The digital era has an impact on education and the quality of learning. Digital devices are a necessity in classroom learning. Bringing equipment to class for learning is still considered 'unnatural' for educators and educational institutions. On the other hand, the device can be used as a medium to find materials in classroom learning. The purpose of this study is to examine the quality management of learning in higher education by bringing their own tools (BYOD) to classroom learning to improve 21st century skills in the Islamic Education Management study program at Kiai Haji Achmad Siddiq State Islamic University of Jember. This research is qualitative research, using observations, interviews and documentation as data collection and interactive data analysis. The results showed that the personal devices used by students in classroom learning brought benefits to critical, creative, collaborative, and communicative thinking skills. The benefits of using device in the classroom are motivating and improving student participation in class discussions.

Keyword: Quality Management, Learning Quality, Device, Skill, Digital.

## INTRODUCTION

Universities have a role as a place to create reliable and competent graduates. To achieve this role, universities must be able to carry out more modern learning, where the learning process is designed to provide students with abilities in cognitive, affective and psychomotor aspects. PT has a responsibility to produce reliable graduates. To produce reliable graduates, the education process is based on 21st Century abilities, which include creative thinking, critical thinking and problem solving, communication and collaboration in learning (Arsanti et al., 2021; Legowo et al., 2019; Supena et al., 2021). To realize the quality of learning in improving 21st Century skills (4C) in learning, one of which is the concept of "Bring Your Own Device (BYOD)". Personal devices owned by students can be used as learning resources in the classroom.

Teachers are no longer the main source of learning. Digital devices can help students find learning resources in the classroom. Digital learning can help students to learn better, more and more varied. Through the use of personal devices, students can learn without being limited by distance, space and time. Students can look for more material not only from the teacher (Tarigan, 2019). Support from lecturers and universities is a determining factor where this readiness has an impact on the information systems available on campus. Wifi capacity and security arising from the use of personal devices are supporting factors in learning (bin Yeop et al., 2018).

Although BYOD is a technological phenomenon that is currently developing among companies in the world. The phenomenon of carrying devices also has an impact on the world of education and learning. It even develops in classroom learning (Farley et al., 2015). Although the presence of the mobile is rarely used in classroom learning, the presence of devices in the classroom is needed to access the equipment. (Education, 2010; Sweeney, 2012)

What concrete benefits do students get in the learning process that they follow through the support of information & communication technology, especially with personal device ownership? Although BYOD is basically not just a question of managing the array of devices owned by students, what benefits can be offered from the adoption of BYOD beyond the benefits obtained through non-BYOD programs is an interesting question to explore. From the problem above, the researcher sees that there is a great opportunity for the development of digital literacy, especially in the classroom by using the tools they have, namely laptops, cellphones, tabs, so that critical ideas emerge in class.

## RESEARCH METHOD

This research is descriptive research with a qualitative approach. The use of this research aims to determine the use of BYOD in improving 4C skills in classroom learning This research was conducted on 45 students of MPI UIN Kiai Haji Achmad Siddiq Jember study program. Collecting data using observation, interviews and documentation. Data analysis in this study, using interactive analysis, includes data collection, simplification of data, data exposure, withdrawal and submission of conclusions. (Miles et al., 2014) The indicators used in the 4C skill assessment include critical thinking, creativity, collaboration, communication (Wahono et al., 2021) as shown in the table.

**Tabel: 1 Indicators of 21$^{st}$ Century Skill**

| Critical Thinking | Creativity | Collaboration | Communication |
|---|---|---|---|
| 1. Asking Questions<br>2. Analyzing and clarifying question<br>3. Gathering Information<br>4. Analyzing and evaluating facts<br>5. Concluding the results of the analysis | 1. Creating new ideas<br>2. Increasing creative effort<br>3. Developing new ideas<br>4. Conveying new ideas to others effectively<br>5. Creating presentation materials | 1. Accepting division<br>2. Contributing group assignment<br>3. Working productively<br>4. Respecting attitude<br>5. Compromising and be responsible | 1. Expressing verbal, written, or non-verbal ideas<br>2. Communicating for various purposes<br>3. Using various media or technology in learning |

## FINDINGS AND DISCUSSION

At the implementation stage of learning using BYOD with predetermined management, namely (1) Presentation of topics from lecturers, (2) Process of accessing information through each device from several reputable references in a duration of 15 minutes, (3) Students

conducting discourse analysis and making summary/ concept map based on data obtained within 30 minutes. (4) Providing material and explanations in the form of PPT from the lecturer followed by a discussion session with a duration of 30 minutes, (5) Randomly, the lecturer appoints several students to present the results of their summary/concept map and provides opportunities for others to give feedback (within 20 minutes duration). ), (6) then the process of conclusion and reflection of learning in a duration of 35 minutes.

Each learning step that is implemented involves aspects of critical thinking, creativity, collaboration and communication from students in scientific data research activities. Through this step, students will be stimulated to further increase reading interest and interest in using their own device.

The results of implementing classroom learning through BYOD to improve the 4C skills of the office management course found several findings. As described in the table.

**Tabel: 2 4C Skills Recapitulation**

| Skill | Answer | | | | Very Good |
|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **Grade** |
| Critical Thinking | 3 | 7 | 10 | 25 | 25 Students |
| Creativity | 2 | 5 | 15 | 23 | 23 Students |
| Collaboration | 2 | 5 | 10 | 33 | 33 Students |
| Communication | 3 | 7 | 12 | 23 | 23 Students |

The application of learning by using BYOD in improving 4C skills. Students, when participating in learning with management using BYOD in critical thinking aspects, become dominant. 25 students have critical thinking skills with very good predicate. This means that the quality of learning using BYOD as a technological medium can improve the quality of learning. In addition, they have the ability to adapt by analyzing material obtained from online gadgets, cellphones and laptops. These skills provide students with the ability to learn and adapt to the digital era and have the confidence to face the future (Haug & Mork, 2021). Learning outcomes and efficacy (Adhikari et al., 2017). Teachers are more creative in finding learning strategies (Prafitasari et al., 2021).

In the aspect of creativity, 23 students got very good scores. Creativity is seen when, in learning using BYOD, students are able to search independently and not depend on others. In addition, students are quick to respond when receiving lessons and use study time when using cell phones in class according to the specified time. No less important is the main skill, namely being able to convey opinions, ideas, ideas that have been obtained to be conveyed in class discussions. This attitude, as stated (Isnawati, N. & Samian, 2018) is quick to respond, punctual in learning and courageous in opinion.

In collaboration skills, there are 33 students with very good scores and the rest, good, enough and less. These results indicate that collaboration skills when learning using BYOD are very good and more dominant than other skills. Collaboration skills are seen when collaborating, synergizing with each other, adapting to various roles, listening to the opinions of others and respecting differences between students when expressing opinions, ideas and ideas about lecture materials. As (Arnyana, 2019), collaborative activities are able to provide students with provisions to accept other people's opinions and respect each other.

Likewise, for communication skills, there are 23 students with very good scores. These skills can be seen in classroom learning. Students have better communication skills and are confident in expressing their opinions and ideas. In addition, students master the technology they bring as a source of learning in the classroom and outside the classroom. This finding illustrates that the use of BYOD in the classroom can give students confidence in conveying their ideas and ideas in verbal and nonverbal forms. Directly or indirectly have an impact on the quality of learning in terms of their knowledge and life skills (Suciati, 2018).

## CONCLUSION

Classroom learning through BYOD really supports the quality of student learning because it stimulates increased interest in reading and skills in using devices, especially in the context of accessing data, knowledge and information related to lecture study materials through various reputable sources or scientific references. In addition, with BYOD skills in aspects of critical thinking, creativity, communication and collaboration become better. This finding recommends that the use of devices in classroom learning can be used as an alternative to supporting the quality of learning. Another thing to consider before implementing it is that device ownership and data access owned by students and campuses is well available.

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