
Dwi Puspitosari¹*, Dwi Puji Asrini²

Japanese Language Education, Faculty of Languages and Arts, Semarang State University, Indonesia
E-mail: dwi.puspitosaripbj@mail.unnes.ac.id¹, dwipujiasrini82@gmail.com²

*) Corresponding Author

Abstract

This study aims to determine the impacts of the Pandemic on the development of 4C skills and learning motivation. 21st-century skills are a collection of skills humans need to face the times. The skills are creative thinking, critical thinking and problem-solving, communication, and collaboration (4C). Students in the 21st century need at least one of these skills to communicate their ideas effectively, think creatively, solve problems, and make wise decisions independently or in groups. The Covid-19 pandemic has had a significant impact on all life sectors, including education. There has been a significant change in the learning model from face-to-face learning to online or hybrid learning. This study uses an online questionnaire distributed to the students of Universitas Negeri Semarang Japanese language education study program. We collected the data from a total of 115 students. The questionnaire results, which were distributed to 115 students, found that the offline learning model was felt to hone the development of 4C skills. Regarding learning motivation, it was found that 76% of respondents felt that learning motivation had decreased, and 24% answered that they did not experience a decrease in learning motivation.

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INTRODUCTION

The current era of digitalization has led to many changes in the community life model due to the development of science and technology. Communities that begin to compete, as well as the implementation of education that refers to the 21st century, create students who have the ability to innovate and learn by utilizing various information media and technology (Kemdikbud, 2013: 275). The times demand new skills and knowledge in social life (Lenher & Wurzenberger, 2013: 358). Therefore, the education system must immediately modernize so that students master learning skills and the ability to use technology to find information, innovate, and survive with their potential (Higgins, 2014: 564). Recent changes in education emphasize teaching objectives to develop problem-solving, communication, and reasoning skills in learners (Nasrallah, 2014: 258). The world of education has utilized this type of technological development to create more effective learning, such as using technology in distance learning, etc. The education sector has a massive influence on the activities of the education sector. The education sector greatly influences teaching and learning activities in the 21st century. Improving human resources quality with education from primary to secondary to higher education is an asset to continue developing industrial change 4.0 (Lase 2019: 29).

Semarang State University always innovates in the learning process as an educational institution that prioritizes the quality of human resources. The 21st-century skills students must have remain an achievement pursued in every lecture activity. The development of a nation depends on the quality of its human resources. A quality society is an important capital for achieving a superior nation, both in science and technology, culture, politics, economy and the character of a nation (Mulyani, et al, 2020: 225). The character here refers to several actions, namely: 1) Behavior, 2) Attitudes, 3) Motivations, and 4) Skills (Wibowo, 2023: 77). Important 21st-century skills contain skills that must be honed in learning, namely The 4C Skills, which means: critical thinking and problem-solving, communication, collaboration, innovation and creativity, information literacy, and others. King et al. in (Redhana, 2019: 2241).

The distance learning model (PJJ) during the COVID-19 pandemic is expected not to reduce the essence of each material taught in each work unit, including the honing of 21st-century skills in the Japanese Language Education Study Program Universitas Negeri Semarang. Distance learning, referred to in other terms as e-learning (electronic learning), online learning, or online, is a challenge for all parties involved in learning, who must be ready to face online learning (Tirziu & Vrabie, 2015: 378). Distance learning (PJJ) and face-to-face learning have a different effect on the quality of students' learning (Karwati, 2014: 53).

Further discussing changes in the teaching model, some other studies raise the issue of the impact of teaching changes on learning evaluation and student learning motivation.

The research entitled “The Effect of Learning Motivation and Learning Methods on Student Learning Achievement” in the LP3I Jakarta Polytechnic Computerization Study Program Blok M Campus (Alam, 2016). From this study, it can be seen that motivation and learning methods greatly affect student achievement. Teaching ability variables and learning methods are concluded to influence learning achievement positively, in addition to strong learning motivation factors.

Another study is “The Effect of Online Learning Models Due to the Covid-19 Pandemic on UNAI Student Learning Achievement in the Even Semester 2019/2020 (Limbong, 2020). This study shows that student learning achievement has not decreased after entering the online learning model. In fact, apart from level 1 students, it is known that the average student achievement has increased after changing the learning model from face-to-face to online.

The next study is “The Relationship between Learning Motivation and Academic Achievement in Students Undergoing Online Learning During the Covid-19 Pandemic” (Hasibuan, 2020). From the results of the correlation test, it was found that there was no
significant relationship between learning motivation and academic achievement in students undergoing online learning during the COVID-19 pandemic.

Another similar study is "The Impact of Distance Learning on Students' Stress and Anxiety Levels during the Covid-19 Pandemic" by (Fauziyyah, 2021). The method used is a literature review of national and international journals using the Google Scholar, Research Gate, and Pubmed databases. The results obtained were that the number of stress and anxiety of students during distance learning increased compared to face-to-face learning before the pandemic. It was recorded that the stress level for domestic students was 55.1%, while students outside Indonesia were 66.3%. For anxiety levels, domestic students were 40%, and outside Indonesia were 57.2%. Many factors, such as economic problems, limited social interaction, changes in teaching styles, lack of mastery of technology, lecture assignments, adaptation to changes in learning models, etc, influence this.

From the foregoing studies, it is known that there has been no discussion related to student perceptions of changes in learning models on the achievement of 21st-century skills. Therefore, this study was conducted to determine student perceptions and learning motivation towards the effectiveness of the post-Covid-19 Pandemic learning model in relation to the achievement of students' 21st-century skills (Communication, Collaborative, Critical Thinking and Problem solving, Creativity, and Innovation) in Japanese language learning in the Japanese Language Education Study Program, Universitas Negeri Semarang.

METHOD

This research uses qualitative research methods. The study is conducted in natural situations and conditions by paying attention to everything that exists at the location under study with qualitative data and does not use the calculation method model, and the resulting analysis is qualitative. This qualitative research was conducted through a phenomenological approach. Phenomenological research is a type of qualitative research that observes more closely and in detail related to the experiences felt by respondents. The purpose of phenomenological research is to explain and interpret events a person experiences in an aspect of life, including those experienced when communicating with others and the surrounding environment. Judging from the scientific discipline, phenomenology explores the structure or order of a person's consciousness and experience. The focal point of phenomenological research is not only phenomena that have been experienced but also centers on conscious events from the perspective of the first party who experiences them without intermediaries (Kuswarno, 2009: 22).

Research Respondents

The object of this research is students consisting of class of 2017 (7 people), class of 2018 (8 people), class of 2019 (22 people), class of 2020 (23 people), class of 2021 (24 people), and class of 2022 (31 people) of Japanese Language Education Study Program of Semarang State University, with a total of 115 students.

The respondents' data were obtained from a Google form questionnaire distributed to the students. The results of the collected Google form questionnaire were analyzed using the descriptive percentage formula. The next step was to classify into an interval scale and then draw conclusions.

Research Instruments

In the analysis process, this research was conducted based on the results of a questionnaire (Google Form). The method used was descriptive quantitative. The questions and answer options contained in the questionnaire (google form) are as follows:

1. Creativity

   How do you feel about the optimization of both online and offline learning in stimulating and generating students' creative ideas during lectures?
   - I feel that my creative ideas are optimized during online learning.
   - I feel that my creative ideas are more optimized during offline learning.
   - I feel there is no difference between online and offline learning.
Reasons:
2. **Collaboration**
   
   How do you feel about the optimization of both online and offline learning in fostering students' skills to work together in groups, collaborate with other friends, exchange ideas, and be able to organize the course of discussion in the group?
   
   - I can cooperate more with my friends in class during online learning.
   - I can cooperate more with my friends in class during offline learning.
   - I feel there is no difference between online and offline learning.

Reasons:
3. **Communication**
   
   How do you feel about optimizing online and offline learning in honing students' skills to express and convey opinions or ideas in an orderly, correct, and communicative manner, using pictures/PPT media and without media?
   
   - I can express my opinion more fluently in class during online learning.
   - I can express my opinions more fluently in class during offline learning.
   - I feel there is no difference between online and offline learning.

Reasons:
4. **Critical Thinking and Problem Solving**
   
   How do you feel about optimizing online and offline learning in training students to think critically about a phenomenon, respond to a statement, find solutions to assigned problems, and develop a conversation in a discussion?
   
   - I can think more critically and respond to things during online learning.
   - I can think more critically and respond to things during offline learning.
   - I feel there is no difference between online and offline learning.

Reasons:
5. Has your motivation to learn decreased since the pandemic and the introduction of online classes? (Explanation answer with reasons)

**RESULTS AND DISCUSSION**

**Student Perceptions of Effective Learning Models In 4C Development**

The answer data that have been obtained were calculated using the percentage formula of $P = \frac{f}{n} \times 100\%$. $P$ is the "percentage number", $f$ is the "frequency of answers", and $n$ is the "number of respondents". Based on the overall data obtained and analyzed, the researcher summarized the data into a bar chart based on four categories of 21st-century skills and a pie chart to show the results of student learning motivation data.

Figure 1 below is a bar chart showing the percentage of respondents who answered the more effective learning model between online learning and offline learning to develop students' 4C skills in the learning process.

**Figure 1:** Bar Chart of Student Perceptions of Effective Learning Models for the Development of 21st Century Skills

From Figure 1 of the "Creativity" bar chart, it can be seen that 65.2% (75 people) answered that creative ideas and ideas are more stimulated and optimally appear in offline learning (face-to-face classes). Meanwhile, 20.9% of respondents (24 people) admitted that online learning (online classes) gave rise to more creative ideas. Another 13.9% of respondents (16 people) answered that there was no significant difference between online and offline learning in efforts to generate creative ideas.

The "Collaboration" bar chart shows the result that 87% (100 people) answered that they were more able to foster the skills of collaboration, cooperation, brainstorming, and being able to organize discussion with friends in groups during offline learning, while only 2.6% (3 people) felt more able to collaborate and cooperate during online learning. Another 10.4% (12 people) felt no difference between online and offline learning in fostering student collaboration, cooperation, and brainstorming skills.

The "Communication" bar chart shows that 53% of respondents (61 people) answered that offline learning can hone students' skills in
expressing and conveying opinions/ideas in an orderly, correct, and communicative manner, either without or by using PowerPoint/image media or others. Meanwhile, 27% (31 people) felt more fluent in communicating ideas and opinions in online learning. As many as 20% (23 people) admitted that there was no difference between online and offline learning in honing their skills in communicating ideas.

The rightmost bar chart, "Critical Thinking and Problem-Solving," shows that 58.3% of respondents (67 people) answered that offline learning is more effective in practicing critical thinking skills towards a phenomenon, responding to a statement, finding a solution to an assigned problem, as well as in skills in developing a discussion in a topic. On the other hand, as many as 12.2% (14 people) answered that they could think more critically during online learning. In comparison, 29.6% (34 people) answered that there was no difference between online and offline learning in practicing critical thinking and problem-solving.

### Discussion of Reasons for Respondents' Answers

In answering the questionnaire above, the following Venn diagram illustrates the similarity of respondents' reasons when answering that offline learning is more effective in honing 4C skills.

![Venn Diagram](image)

**Figure 2. Overview of the Division of Answer Areas Respondents' Reasons for Answering Questions**

The data collection results found that some answers were the same for more than 1 skill related to why offline learning is more effective in honing and improving 4C skills.

**Area A** is an area that shows the same reasons found in the four 21st-century skills why offline learning is more effective. Here are some of those reasons.

- Offline classes are easier to conduct;
- No internet network problems;
- Can be more active in following the lesson.

**Area B** is an area that shows the same reasons found in the three 21st-century skills of Collaboration, Communication, Critical Thinking, and Problem-Solving. Here are those reasons.

- Offline classes make students more independent.

**Area D** is an area that shows the same reasons found in the two 21st-century skills, namely Collaboration and Communication skills. Here are those reasons.

- In offline classes, the delivery of opinions from other friends is easy to understand.

Table 1 below summarizes why respondents chose offline learning to be more effective for each type of 21st-century skill.

**Table 1. Summary of Reasons Offline Learning is More Effective in Developing 21st-Century Skills**

<table>
<thead>
<tr>
<th>Type of 21st Century Skill</th>
<th>Number</th>
<th>Reasons Respondents Choose Offline Learning to be More Effective in Honing and Developing 21st Century Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity</td>
<td></td>
<td>1. Ideas are much more prevalent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. More engaged class and greater interest</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Offline classes are more interactive</td>
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<tr>
<td></td>
<td></td>
<td>4. Offline classes are not as stimulating</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Offline classes are easier when exchanging opinions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Offline classes have more attention</td>
</tr>
<tr>
<td>Collaboration</td>
<td></td>
<td>1. No restrictions on screen, comparison, etc. or freedom of speech</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Easy to express personal opinions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Being able to see the facial expression of classmates, making the class more enjoyable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Feel more confident during offline classes</td>
</tr>
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<td></td>
<td></td>
<td>5. The direction of learning is not one-sided, thus there are more opportunities to ask questions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. It is easy to get bored in online classes</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td>1. Offline classes are more prevalent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Offline classes are more stressful</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. In offline classes, we can directly communicate and have physical contact (talking heads, etc.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. It is easier to become close</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td></td>
<td>1. Offline classes make it more stimulating when friends express their opinions</td>
</tr>
<tr>
<td>and Problem-Solving</td>
<td></td>
<td>2. In offline classes, it is easy to get stressed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. In offline classes, we can see the teacher in person, so we can feel the presence of the teacher, which makes us more comfortable to learn in class</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. It is an online class, once there are 3 or 5 friends who have an opinion, there is no need to be specifically announced</td>
</tr>
</tbody>
</table>

**Data Results of Student Learning Motivation during Learning Model Change**

In addition to knowing which learning model is more effective in developing and honing 4C skills, data have also been obtained regarding student learning motivation in the two models.

The pie chart below shows the respondents' learning motivation between online learning and offline learning.
Figure 3: A pie chart of respondents' learning motivation during online learning

From the pie chart in Figure 3 above, it can be seen that 75.7% of respondents (87 people) claimed to have experienced a decrease in learning motivation since the learning model switched to online learning. The reasons given by the respondents include the lack of direct interaction with friends and lecturers, which is known to be the most common reason that causes decreased learning motivation. In addition, the material delivered by lecturers during online learning is considered more difficult to understand. This is because communication between fellow students and communication with lecturers is limited. In addition, some respondents admitted that the Japanese assignments for online classes were done with the help of translation applications, thus reducing the thinking process and making the subject matter easily forgotten. Another reason is the unsupportive learning environment, such as the presence of other activities, simultaneously as online classes, noise from the surroundings, and areas with unstable internet connections, resulting in reduced concentration and focus on learning. The obstacles that recur almost daily make the respondents' learning motivation less than during face-to-face classes. In addition to these reasons, during the COVID-19 pandemic, the Japanese Language Proficiency Test (JLPT) is usually held twice a year worldwide. And it was canceled due to the COVID-19 pandemic.

Some of the conditions experienced by respondents are closely related to the meaning of motivation in learning, namely external and internal encouragement in learners who are learning to make changes in behavior, which are generally influenced by supporting elements or indicators, namely: 1) Having the desire and passion to succeed, 2) Having motivation and interest in learning, 3) Having dreams for the future, 4) There are rewards in the learning process, 5) There are fun activities in learning, and 6) The surrounding environment is conducive to learning, allowing a student to learn in good condition. (Hamzah B. Uno, 2011: 23).

For 24.3% of respondents (28 people) who answered that they did not experience a decrease in learning motivation since switching to online learning, some of the reasons include the existence of Japanese friends who always motivate learning outside of class, many activities to fill boredom during online classes, more comfortable learning alone, online classes save travel/accommodation costs and time and have clear learning targets, which the learning model does not influence.

CONCLUSION

The conclusion that can be drawn from the results of this study is that most respondents feel offline learning (face-to-face learning) to be more effective in honing and developing the respondents' 4C skills than online learning.

In addition, in the face-to-face learning process, the fulfillment of several indicators or elements of learning support, such as: Having a desire and passion to succeed, having encouragement and needs in learning, having dreams for the future, having rewards in learning, having interesting activities in learning, and a conducive learning environment, making respondents' learning motivation higher in face-to-face learning than online learning.

REFERENCES


