Students' Perception in Adopting, Adapting, and Adjusting Subject Matter Toward Blended Learning Class

Yudi Hari Rayanto[(✉)]

Universitas PGRI Wiranegara, Pasuruan, Indonesia
rayanto75@gmail.com

Abstract. Since the aim of the research was to find out the student's perception in adopting, adapting, and adjusting the subject matter toward blended learning class, moreover the researcher used mixed methods to make clearer the result of the research. Mixed methods here mean the researcher used quantitative and qualitative research designs. The instrument used in this research was a questionnaire. It consisted of 9 questions as the indicators (quantitative) and space to be filled out by students as their comments (qualitative). Students were involved and joined as the respondents were taken from 2 departments, 36 students were from the English department and the rest taken from a computer program, they were 20 students. So, the total number of respondents was 56 students. As the result, there was a different achievement average percentage in adopting, adapting, and adjusting knowledge during the blended learning implemented (offline and online), that is through offline in adopting, adapting and adjusting subject matter (knowledge) of 76–100%, there was 25% strongly agreed (14 students) and 19,64% agreed (11 students), no response 7,51% (4 students) and through online, there was 7,14% strongly agreed (4 students) and 1,78% agreed (1 student), and no response 8,92% (5 students). Besides that, also there was a different achievement average percentage of 10–50% and 51–75% in adopting, adapting, and adjusting.

Keywords: Rapidity · Technology · Blended Learning

1 Introduction

Shifting the pattern of teaching and learning competencies from traditional to the use of technology in applying online teaching for all teachers cannot be said easy. The proficiency of teachers in applying traditional ways cannot be denied since they had a lot of experience in implementing models and strategies in traditional ways in the classroom. However, the use of technology as supporting instructional media in teaching seems so astonishing and effective. The readiness of teachers is granted in applying technology in online learning. Moreover, fulfilling learners' technological needs and their need to use practical online technology are crucial to the effectiveness of the learning process [1] and [2]. Technology as supporting instructional media grows so fast and provides many options in conducting online learning, such as; zoom, google meet, and meanwhile other

applications like TikTok, padlet, you cut, cap cut, etc. A variety of additional approaches for preparing teachers to teach with technology have been proposed to move toward the other end of the continuum by (1) integrating technology in all courses in the teacher preparation program to be more supportive of the development of a technology-enhanced PCK and content-specific applications and (2) requiring pre-service teachers to teach with technology in their student teaching experience [3–5].

The rapidity and the use of technology in online teaching and learning activity do not always ensure that learning will be categorized effectively. There has to be a combination of online and conventional ways of teaching and learning, that is; blended learning. Blended learning is a learning approach activity whereas the teachers combine conventional way and online learning. Conversely, in this approach, teachers are demanded to be proficient in the use of technology in online learning since they were experts in face-to-face learning. Blended learning encourages teachers and students to adopt, adapt and adjust themselves to the use of technology in applying online learning. The expectancy of applying various technologies is hoped to be able to improve the technological environment in the process of teaching specific topics, [6]. Also, it is able to conceptualize and the process the subject matter and manner. Therefore, it is supposed to be organized, composed and standardized well in the curriculum. Meanwhile, the tendency of teachers to adapt learning practices by integrating certain technologies as a form of support can be attributed to the assimilation and accommodation processes that result in changes in personal thoughts and experiences, [7, 8]. Undeniable, also the result of teaching is affected by the uniqueness of students' learning styles as personal characteristics that make the teaching activities effective or not [9] As an individual who has his learning style, of course, the student has his ways of adopting, adapting, and adjusting the subject matter. Hence, the self-concept, role of experience, readiness for learning and learning orientation led to the achievement of self-identity [10].

Based on the explanation above, moreover, this research is conducted at PGRI Wiranegara University where this university has implemented blended learning for two years. In this research, the researcher is trying to find out the student's perception in adopting, adapting, and adjusting the subject matter during the blended learning applied by lecturers. Starting from the explanation above, moreover, the researcher is interested and proposed a research question 'How is students' perception in adopting, adapting, and adjusting the subject matter toward blended learning class? It is hoped through this research, the students of the university, practitioners, and other relevant researchers can do similar research on different subjects.

2   Methods

The method used in this research was a mixed method. Here the researcher combined quantitative and qualitative research designs to obtain and explain the result of the research. In this research, the researcher used a questionnaire that was distributed to 56 students of the university in the academic year 2020/2021 and 2021/2022. These participants were taken from 2 departments, they are; English study program consists of 36 participants in the academic year 2020/2021, and the computer study program consists of 20 participants in the academic 2021/2022. In these participants, the researcher did not differentiate the gender.

The questionnaire which was distributed consisted of 9 questions and also a space to be filled by students as a comment response from students toward blended learning class. Meanwhile, for responding to the indicators, the participants (students) must give a clue to the form from the statements given. The clues consisted of strongly agree, agree, disagree, and strongly disagree. In this case, the researcher used the Likert scale whereas strongly agree (4), agree (3), disagree (2), and strongly disagree (1). The researcher did some procedures in obtaining and analyzing the data from the questionnaire as below:

1. Collected all participants' response
2. Coding the questionnaire paper from student's responses with a number
3. Calculating the percentage from each participant's response through the formula below;

$$F = \frac{N}{T} \times 100\%$$

$F =$ The frequency
$N =$ The count participants
$T =$ The total participants

Meanwhile, the data gained from students' comments were then generalized through the student's similarities in giving comments. Then, after all, the data analysis results were obtained, the researcher did an interpretation to make clearer the result not only quantitatively but also qualitatively.

3   Findings and Discussion

3.1   Findings

Based on the data analysis result gained from 9 indicators and comments given by students, the researcher divided these results into 2, they are from indicators and comments. It can be seen below:

1) Data Presentation Quantitatively from Indicators
a. The student's seriousness in joining teaching and learning activity: Strongly agreed 64% (36 students), and Agreed 35% (20 students).
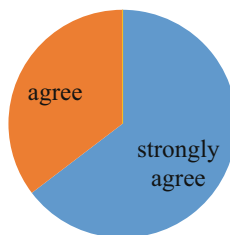

Fig. 1. The student's seriousness in joining teaching and learning activity

b. The student's seriousness in joining teaching and learning activities both online and offline (blended learning): 35,7% strongly agreed (20 students), and 64,3% agreed (36 students).
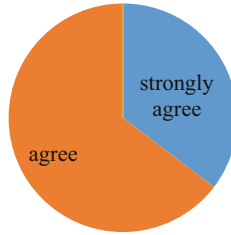

Fig. 2. The student's seriousness in joining teaching and learning activities both online and offline (blended learning)

c. The optional statement in joining kinds of teaching and learning activities (online and offline).
1) online learning class: 17,85% strongly agreed (10 students), 37,5% agreed (21 students), 10,71 disagreed (6 students), and 33,94% No answer (19 students).
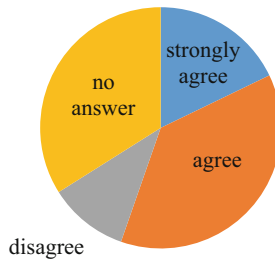

Fig. 3. The statement in joining of online learning class

2) offline learning class: 39,28% strongly agreed (22 students), 42,85% agreed (24 students), and 17,85% no response (10 students).
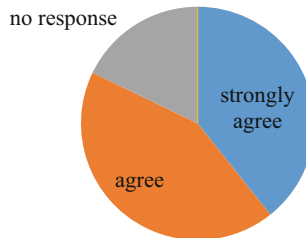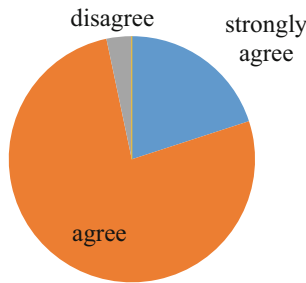

Fig. 4. The statement in joining of offline learning class

d. The student's achievement average percentage in adopting, adapting, and adjusting knowledge toward online learning class 10–50%: 7,14% strongly agreed (4 students), 19,64% agreed (11 students), and 1,78% disagreed (1 student).
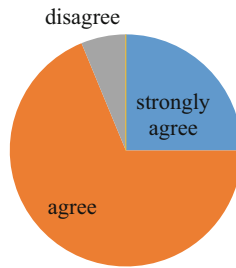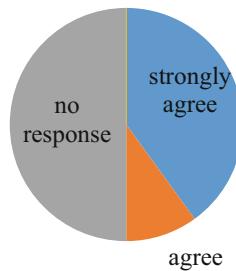

Fig. 5. The student's achievement average percentage in adopting, adapting, and adjusting knowledge toward online learning class 10–50%

e. The student's achievement average percentage in adopting, adapting, and adjusting knowledge toward online learning class 51–75%: 10,71% strongly agreed (6 students), 41,07% agreed (23 students), and 1,78% disagreed (1 student).
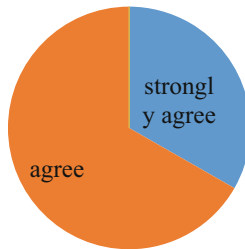

Fig. 6. The student's achievement average percentage in adopting, adapting, and adjusting knowledge toward online learning class 51–75%

f. The student's achievement average percentage in adopting, adapting, and adjusting knowledge toward online learning class 76–100%: 7,14% strongly agreed (4 students), 1,78% agreed (1 student), and No response 8,92% (5 students).
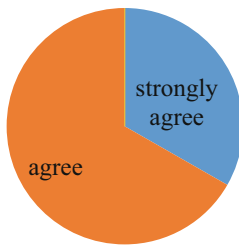

Fig. 7. The student's achievement average percentage in adopting, adapting, and adjusting knowledge toward online learning class 76–100%

g. The student's achievement average percentage in adopting, adapting, and adjusting knowledge toward offline learning class 10–50%: 1,78% strongly agreed (1 student), and 3,57% agreed (2 students).

Fig. 8. The student's achievement average percentage in adopting, adapting, and adjusting knowledge toward offline learning class 10–50%

h. The student's achievement average percentage in adopting, adapting, and adjusting knowledge toward offline learning class 10–50%: 1,78% strongly agreed (1 student), and 3,57% agreed (2 students).
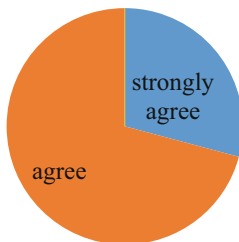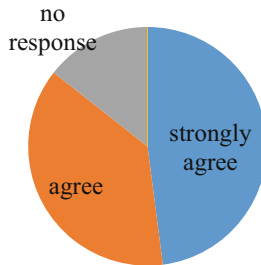

Fig. 9. The student's achievement average percentage in adopting, adapting, and adjusting knowledge toward offline learning class 10–50%

i. The student's achievement average percentage in adopting, adapting, and adjusting knowledge toward offline learning class 51–75%: 12,5% strongly agreed (7 students), and 30,35% agreed (17 students).


Fig. 10. The student's achievement average percentage in adopting, adapting, and adjusting knowledge toward offline learning class 51–75%

j. The student's achievement average percentage in adopting, adapting, and adjusting knowledge toward offline learning class 76–100%: 25% strongly agreed (14 students), 19,64% agreed (11 students), and No response 7,51% (4 students).


Fig. 11. The student's achievement average percentage in adopting, adapting, and adjusting knowledge toward offline learning class 76–100%

k. The students feel relaxed in joining online learning class activities: 41,07% strongly agreed (23 students), 48,21% agreed (27 students), 8.92 disagreed (5 students), amd 1,78% strongly disagreed (1 student).
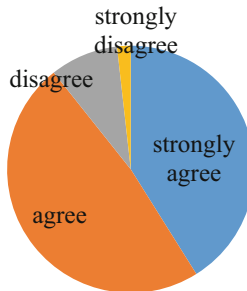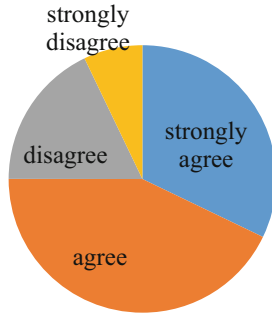

Fig. 12. The students feel relaxed in joining online learning class activities

l. The students feel challenged in joining offline learning class activity: 41,07% strongly agreed (23 students), 57,14% agreed (32 students), and 1,78% disagreed (1 student).
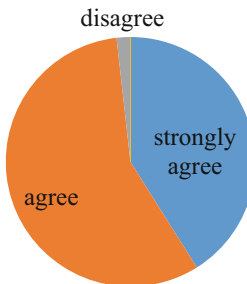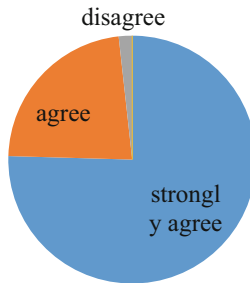

Fig. 13. The students feel challenged in joining offline learning class activity

m.   The students feel not so closed in making relationships during joining online learning class activity: 32,14% strongly agreed (18 students), 42,85% agreed (24 students), 17,85% disagreed (10 students), and 7,14% strongly disagreed (4 students).

Fig. 14. The students feel not so closed in making relationships during joining online learning class activity

n.   The students feel so closed in making relationships during joining offline learning class activities: 76,78% strongly agreed (43 students), 21,42% agreed (12 students), 1,78% disagreed (1 student).

Fig. 15. The students feel so closed in making relationships during joining offline learning class activities

The Interpretation Result

Pandemic covid-19 which spread so fast did not affect students in gaining knowledge. Based on diagram1, it showed that all students at the university are serious about involving and joining the teaching and learning activity. There were no statements that they disagree and strongly disagree on involving and joining the teaching and learning activity during pandemic covid-19. When the policy of deciding blended learning must be held in teaching and learning activities in a classroom, there was no rejection from all students. It was proven that there were no statements that they strongly disagree and disagree. Mostly, students at university agree and strongly agree on involving and joining blended learning classes, see Fig. 1. For making clearer the disparity result occurred in

implementing blended learning because of the result from Fig. 2 that showed agree on statement higher than strongly agree, so the researcher gave two options in joining kinds of teaching and learning, there online and offline learning class. Figure 3 showed that in online learning classes, some students had pseudo answers, and 19 students did not give a response, meanwhile, 6 students at university disagree, 21 agree and 10 strongly agree. On the contrary, when the students gave responses in involving and joining offline learning class activities, the result showed that 22 students stated strongly agree, 24 students stated agree, and 10 students did not give a response, see Fig. 4. However, it seems that offline were still mostly liked to be implemented in teaching and learning activities. It was also proven from the result of students' achievement in adopting, adapting, and adjusting the knowledge from the implementation of online and offline learning activities. In the online learning activity, 15 students stated that they only adopted, adapted, and adjusted the knowledge from 10–50%, 29 students in 51–75%, and 5 students university in 76–100%. There were still others who should be chosen in 51–75% or perhaps gave no answer, see Figs. 5, 6, and 7. Thus, in offline learning class, 25 students in adopting, adapting, and adjusting their knowledge in 76–100%, 24 students in 51–75%, and there were only 3 students in 10–50%, see Figs. 8, 9, 10, and 11. It seems different results between online and offline. Moreover, involving students themselves in adapting and adjusting knowledge during learning activities in pandemic online offline had a different nuance not only in feeling relaxed and challenging but also in making closer their relationships as a classmate. It indicated that 50 students (strongly agree and agree) felt relaxed online, and offline 55 (strongly agree and agree) students felt challenged. Still, that offline learning was mostly my favourite learning and teaching activity. Meanwhile, during conducting an online learning activity, there were 42 students (strongly agree and agree) who felt not so closely closed with their classmates and if it was compared with the offline learning activity, there were 55 students (strongly agree and agree) who felt so closed see Fig. 12, 13, 14, and 15.

2)   Data Presentation qualitatively from Students' Comments

After generalizing the data from 56 students' comments, it is found that some students were not consistent in commenting on blended learning which was used in adopting, adapting, and adjusting knowledge. It can be seen through the finding found by the researcher below;

1.   9 students did not give comments
2.   Commenting prefer online 2 students
3.   Commenting prefer offline 13 students
4.   Commenting that blended learning class was less effective 8 students
5.   Commenting that the blended learning class was effective 21 students
6.   Commenting by giving other statements were 2 students
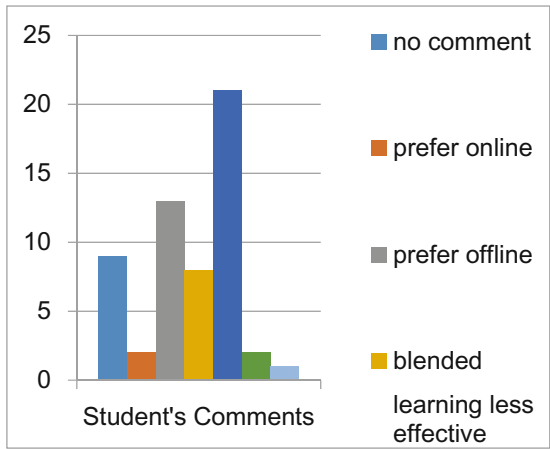7.   Commenting unclear statement was 1 student (Fig. 16)

Fig. 16. Student comment

The Interpretation Result

The students in this case gave various comments toward the blended learning activity and also did give comments at all toward blended learning. 9 students at the university did not comment. For students at the university who gave comments, they commented on blended learning activities with different things, such as; there was 1 student (number 52) that commented which was not directly stated the blended learning activity. This student stated that I like and am happy when I can understand the subject matter, but when I have problems and am hard to understand, I am not very happy. Also, 2 students at the university gave comments about blended learning, but they did not state whether blended learning was effective or not. They were number 7, and 13. In the instance from students, number 7 and 13 whereas student number 7 stated that blended learning depended on the material given and the way how the lecturer conveyed the material. It did not depend on online and offline. Besides that, the situation and condition of student and their environment also affect learning. Meanwhile, student number 13 stated that she was more enjoyable adopting, adapting, and adjusting the subject matter through offline learning, but when the lecturer gave the assignments, she was more enjoyable online. It seemed that these students did not understand the real meaning of blended learning. Moreover, some students at the university do not give comments about blended learning activities. They preferred to comment on their agreement during the teaching and learning activity implemented through online or offline learning activities. From this result, it can be seen that students preferred adopting, adapting, and adjusting knowledge through offline learning activities to online learning. However, the student gave comments that the blended learning activity was stated more effective.

3.2   Discussion

The debatable through the use of a blended learning approach in teaching and learning activities occurred since the result of the conventional way of teaching and learning activity to be something unbeatable in adopting, adapting, and adjusting knowledge

by students. The past habit on the use conventional way made lecturers and teachers reluctant to use and implement technology as media in teaching and learning. However, lecturers and teachers could not run away to implement technology as media in conducting teaching and learning. Since that occasion occurred, lecturers and teachers have to know how to implement technology when they could not convey knowledge conventionally. In other words, lecturers and teachers have to be able to use both online and offline as stated blended learning approaches in teaching and learning activities. The expertise of the lecturer and teachers is examined on this occasion. They have to be skilful in applying some applications provided through technology in online learning while they were not accustomed to using them during offline learning. Moreover, teachers are demanded not only to understand pedagogical theories and teaching subjects but are also required to be proficient in applying online teaching, [11, 12].

Conducting blended learning toward pandemic covid-19 seemed something crucial since there was no other better alternative taken to hold and get a maximal result in teaching and learning activity. Even now, there was still debatable about such good and bad side occurred. As it can be seen from the result of students' university questionnaires and comments on the use of the blended learning approach in teaching and learning, blended learning can still be stated as the best solution. However, in applying blended learning, some preparation must be prepared well by a lecturer, and teacher in applying technology in online learning and a conventional way for gaining the best result as the consequence, not only the expertise on the use application in technology but also in preparing some instruments before conducting teaching and learning; for instance, lesson plan and application (media). Moreover, teachers' adaptation of instructional practices is a process of assimilation and accommodation that results in changes in their thinking, [13]. Otherwise, the teaching and learning activity cannot run well. Establishing well teaching is not easy because it needs a lot of preparation. If the instruments of learning are not set as well as possible, the learning cannot be obtained optimally, [14]. The relationship between science and technology is so close that any presentation of science without developing an understanding of technology would portray an inaccurate picture of science [15].

4 Conclusion

Teaching and learning activities in any matter should be conducted well. The blended learning approach as one of the alternatives in conducting teaching and learning during Pandemic Covid-19 plays an important role. Based on the result of research through questionnaires and comments given to students showed that blended learning was categorized as effective to be implemented whereas 35,7% strongly agree (20 students) and 64,3% agree (36 students). Also, from the comments given, 21 students stated that blended learning was effective. Meanwhile, there was different achievement percentage in adopting, adapting, and adjusting knowledge offline and online, that is offline, there was 25% strongly agreed (14 students) and 19,64% agree (11 students) students gained 76–100% and online, there was 7,14% strongly agree (4 students) and 1,78% agree (1 student) students gained 76–100%.

References

1. Arifani, Y., Suryanti, S., Wicaksono, B. H., & Inayati, N. (2020). EFL teacher blended professional training: A review of learners' online and traditional learning interactions quality, *3L Southeast Asian. Journal of English Language Studies, 26*(3), 124–138.
2. Koehler, M., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)? *Contemporary Issues in Technology and Teacher Education, 9*(1), 60–70.
3. Duhaney, D. (2001). Teacher Education: Preparing Teachers to Integrate Technology. *International Journal of Instructional Media, 28*, 1.
4. Wetzel, K., Zambo, R., Buss, R., & Arbaugh, N. (1996). Innovations in integrating technology into student teaching experiences. *Journal of Research on Computing in Education, 29*(2), 196–214.
5. Young, S., Cantrell, P. P., Bryant, C. J., Archer, L. H., Roberts, C. G., & Paradis, E. E. (2000). The state of technology in university teacher preparation and public schools in Wyoming. *Teach for Change, 8*(1), 134–144.
6. Niess, M. L. (2005). Preparing teachers to teach science and mathematics with technology: Developing a technology pedagogical content knowledge. *Teaching and Teacher Education, 21*(5), 509–523. https://doi.org/10.1016/j.tate.2005.03.006
7. Lowe, A. (1967). Becoming a teacher. *Childhood Education, 44*(4), 239–244.
8. Aisyah, R. N., Setiawan, S., & Munir, A. (2021). Technological pedagogical content knowledge (TPACK) in action: Unraveling Indonesian English as a foreign language teachers' TPACK by implementing Telegram. *Computer Assisted Language Learning, 22*(3), 17–32.
9. Wahyuddin, W. (2016). Gaya Belajar Mahasiswa. *Al Qalam, 33*(1), 105–120.
10. Firmansyah, M. B., Siswanto, W., & Priyatni, E. T. (2020). Multimodal smartphone: Millennial student learning style. *TEST Engineering & Management, 82*, 9535–9545.
11. Philipsen, B., Tondeur, J., Pareja Roblin, N., Vanslambrouck, S., & Zhu, C. (2019). Improving teacher professional development for online and blended learning: A systematic meta-aggregative review. *Educational Technology Research and Development, 67*(5), 1145–1174.
12. Salmon, G. (2003). *E-moderating: The key to teaching and learning online.* Psychology Press.
13. Schreiter, B., & Ammon, P. (1989). *Teachers' thinking and their use of reading contracts.*
14. Rayanto, Y. H. (2020). Applying obejctivist instructional design of Addie model on learning reading comprehension. *International Conference on Community Development (ICCD 2020)* (pp. 795–799).
15. National Academy of Sciences-National Research Council DC. (1986). *National science education standards.* Joseph Henry Press.