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An attempt to build bidirectional/hybrid remote classes

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1. Introduction

1.1 Background of the research

In recent years, the use of digital content via the Internet such as remote classes has become commonplace and has attracted attention as a new form of education and learning. In March 2023, the MEXT (Ministry of Education, Culture, Sports, Science and Technology) issued 'Guidelines for the Implementation of Distance Education at Universities and Colleges of Technology' to confirm the basic concept of the implementation of distance education, using freedom from geographical, spatial and time constraints as an example of the advantages of distance education.

'The results of the 2021 National Student Survey (2nd trial implementation)' by MEXT shows the results of a questionnaire survey on the two types of online classes (the simultaneous interactive type and the on-demand type) that students took. In the aforementioned 'Guidelines for the Implementation of Distance Education at Universities and Colleges of Technology', there is a reference to a class format that combines online and face-to-face teaching, and now 'hybrid class formats' that combine both online and face-to-face teaching are also being seen. However, it cannot be said that there has been sufficient verification of the effective implementation methods of the hybrid class format.

1.2 Purpose of the study

The purpose of this study is to conduct a trial of hybrid-type classes (face-to-face + simultaneous interactive online methods) with Japanese university students and, based on the results, to explore the effectiveness and points to mind of introducing hybrid-type classes into online classes, which are expected to spread and expand further in the future.

2 Method

Table 1 shows the details of the bidirectional/hybrid remote classes.

Table 1

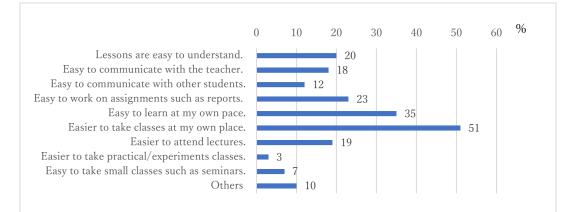
Details of the bidirectional/hybrid remote classes

Class details	
Period	April to July, 2023 (during the first semester)
Туре	Elective compulsory class and credit bearing
Participants	47 Japanese University students (undergraduates in 2nd & 3rd year, L1 Japanese),
Software	Zoom (Zoom Corporation)
Session duration	90-minute sessions conducted once a week
Number of sessions	15 times
Session content	English Reading
Questionnaire	Paper based Questionnaire

3. Findings

Figures 1 and 3 are graphs created by the author referred to the "National Student Survey (2nd Trial Survey)" in 2021. The survey conducted by the MEXT was conducted on a large scale and divided into three types, those were with more than 800 respondents, from less than 800 to more than 400. Although there was no considerable difference in answers between the three groups, I decided to compared them with the results of the smallest number of less than 400 people. Figures 2 and 4 are graphs created based on the results of a questionnaire conducted after the end of bidirectional hybrid classes. Answers in Figures 1 and 3, respondents chose their answers among multiple examples in line with their own opinion. Answers in Figures 2 and 4, in addition to the multiple examples' method, a free text field was provided.

Figure 1



Better points than in-person classes (bi-directional type): N=less than 400

From: The results of the 2021 National Student Survey (second trial implementation) by the MEXT **Figure 2**

Good points in bi-directional/hybrid type classes: N=47

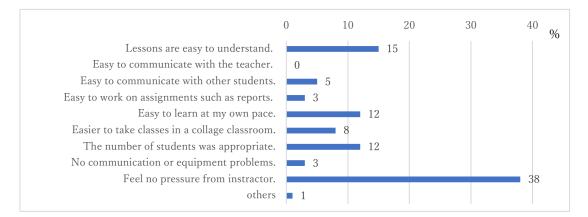
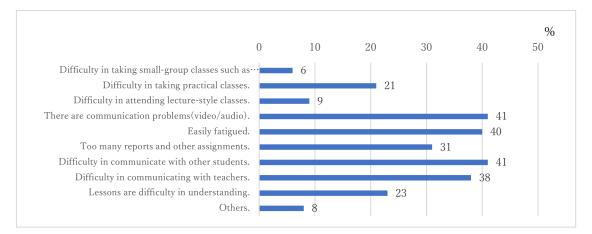
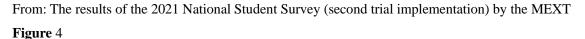
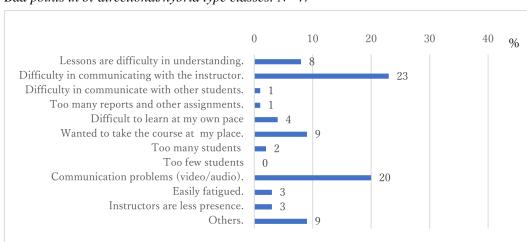


Figure 3

Worse points than in-person classes (bi-directional type): N=less than 400







Bad points in bi-directional/hybrid type classes: N=47

4. Discussion

As you can see in Figure 2, as in Figure 1, the participants in this trial also found it difficult to communicate with the instructor and other students in remote classes, but felt that they could learn at their own pace. Many of the participants in this study chose the item as a good point. From their free comments, some participants were expected that they had a strong feeling that they were not good at English, so it was easier for them to take this format because they could feel the social presence of the instructor was low. Additionally, there was a comment which said, "During the remote classes, students were not often asked to perform, so I could take classes at my own pace."

However, some comments indicated that students were able to concentrate better when they met face-to-face. Additionally, some comments says that "it was refreshing to meet once a month rather than all remote class system." From the answers, it was expected that taking in person class one out of four times (or some frequent) led to the maintenance of motivation.

In both Figures 4 and 3, as disadvantages of remote classes, many comments cited difficulties in communicating with the instructor and other students, and also mentioned problems in terms of hardware, such as communication environments and equipment malfunctions. Although these hard problems are expected to be solvable in the future, at present, the hard problems were significant and, therefore, other soft problems were less visible on the surface in this survey.

According to Miyaji (2009), in terms of "remote classes" learners to learn at their own pace, and at the same time, promotes interactive learning and makes it easier to maintain motivation to learn when combined with face-to-face learning. It can be said that the results of the present study are partly the same as those of Miyachi (2009). That is, students who are not good at English tend to prefer remote classes where the teacher's social presence is reduced (Katori, 2019), but meeting face-to-face from time to time makes it easier for them to maintain their motivation in class.

5. Conclusion

From this survey, it was found that the combination of face-to-face classes and online classes has the advantage of maintaining freshness and motivation more easily than remote classes, but there are some problems about hardware environment. Although, it could be expected that combination for face-to-face classes and remote class have some advantages over "remote classes", for example, that the ratio of face-to-face and remote classes is not researched nor cleared yet. At present, there is no clear consensus among research and educational institutions, therefore, further research on this matter will be required in the future.

Acknowledgements

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References

Ministry of Education, Culture, Sports, Science and Technology. (2023, May). Guidelines for the Implementation of Distance Education at Universities and Colleges of Technology; The results of the 2021 National Student Survey (2nd trial implementation). Retrieved October 1, 2023, from https://www.mext.go.jp/content/20221021-mxt_koutou01-000025600-9.pdf
Miyaji, I (ed.). (2009). From e-Learning to Blended Learning. Tokyo: Kyoritsu Shuppan.