Comparison of Japanese University Students’ Levels of Self-Determined Motivation in Face-to-Face and ERT Classrooms: NESTs and JTEs Effect on Satisfaction of Students’ Basic Psychological Needs.

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Abstract

The purpose of this study was to examine the effect of teachers’ support on students’ self-determined motivation before and after the COVID-19 out-break in Japan. The study was conducted in two stages with 378 female business major college students in 2018, and 165 students of the same university and department in 2020. The findings suggest that in the face-to-face classroom, the students perceive their native English-speaking teachers of English (NESTs) to provide greater support for their basic psychological needs than Japanese English teachers (JTEs). The greatest perception gap was in the fulfillment of the students’ need for relatedness. At the same time, the second study reveals that under Emergency Remote Teaching conditions, JTEs are perceived as providing enough relatedness support to create a significant size effect on the students’ self-determined motivation—a considerable positive change from the face-to-face environment. Additionally, the comparison between pre-COVID-19 and ERT need satisfaction rankings shows a noticeable increase in students’ autonomy need satisfaction with both types of teachers, placing it first highly satisfied among the three needs, with the highest size effect on the students’ self-determined learning motivation.

Keywords: self-determined motivation, basic psychological needs, NEST, JTE

Introduction

Motivation to learn English has been a research topic of great interest in Japan (Ushioda, 2013). Teacher behavior in the classroom is found to be one of the main factors influencing students’ motivation (Kukuchi, 2009). The emergency remote teaching (ERT) form of current education presents a different environment, where teacher’s support can be perceived differently by the students than in the face-to-face classroom. Under such circumstances, it is now more than ever important to examine teacher-related factors influencing English language learning motivation in Japanese university settings focusing on how motivation is affected by student-teacher interactions and is (if) different from the traditional form of education. In detail, this study looks at differences in perceived psychological needs support from different types of English teachers between students in face-to-face and ERT classrooms.
Literature Review

Self-Determination Theory

The Self Determination Theory (SDT) is a popular theory in language learning that relies on the idea of internalization of student internal and external motives and differentiates autonomous and controlled motivation. The autonomous motivation is regulated by intrinsic, identified, and integrated motives. The controlled motivation is managed by external and introjected regulations. When motivated autonomously, people voluntarily initiate their actions. On the other hand, when they behave according to the expectations of others and feel external pressure, people are fuelled by controlled motivation (Deci & Ryan, 2008). Both autonomous and controlled motivations energize and facilitate learning. “However, the latter is associated with declined psychological well-being among students and lesser academic achievement” (Yazawa, 2019).

One of the main research questions in the SDT field is the degree people are influenced by external social factors such as awards, external assessments, limitations, and interpersonal interaction between all involved in the learning process. Two ideas are central to this question—1) the idea of the qualitative origin of various types of extrinsic motivation that regulate an individual’s behavior (mentioned above) and 2) the idea that three basic needs underlie autonomous motivation and ensure an individual’s optimal functioning, creative achievement, and psychological well-being.

Basic Psychological Needs

According to the authors of the theory, three universal basic psychological needs—autonomy, competence, and relatedness—regulate the degree of self-determined motivation and psychological well-being. The need for autonomy is the need to experience choice and determine own behavior. This is a universal need to feel as an actor, a willing subject of the undertaken activity. The need for competence is the desire to feel adequately challenged by the situation and to be effective in coping with the tasks presented by the environment. The need for relatedness is the desire to have a reliable connection with significant people around, to be understood and accepted by them.

Since these needs are innate, initially present in all people, the research question is usually not about the degree of individual difference in the intensity of each need, but about the extent of each need’s frustration or satisfaction. Of particular importance in the educational field is satisfaction of the need for autonomy, as it is considered an essential fuel that ignites motivation to learn a foreign language. Autonomy satisfaction allows students to explore their environment more eagerly, initiate learning behavior and take an active role and interest in solving problems.

Recognizing that a variety of factors can influence the learning situation, the authors of the SDT distinguish two types of teacher behavior that directly affect the autonomy need satisfaction. Some teachers believe that their role is to assure students complete all tasks errorlessly and that they should convince students to focus on doing so. They are called
controlling teachers. Other teachers consider it important for students to learn from the experience of success and failure and to try to solve problems on their own, rather than relying on what the teacher tells them to do. They are autonomy-supportive teachers (Deci, Ryan, 2008). A teacher who supports a student’s autonomy spends less time talking, less time holding teaching materials in their hands, and does not give solutions to the problems too quickly. Instead, they spend more time listening and assigning more independent work (Reeve et al., 2018).

**English Teacher Identify in Japan**

Medgyes (1994) defined two distinctively different groups of English language teachers: native English-speaking teachers (NESTs) and non-native English-speaking teachers (NNESTs). Similarly, teachers in Japan have been addressed, and sometimes regardless of their actual nationality, as either NESTs or Japanese teachers of English (JTEs) (Houghton & Rivers, 2013). Despite the on-going debate about the appropriateness of these terms in the multicultural ESL industry, they are widely used in Japan and recognized by both employers and students.

Many researchers in the educational field have stated that students perceive NESTs as more understanding and supportive of autonomy (Gurkan & Yuksel, 2012). According to Littrell (2006) in the Confucianism value-based nature of the educational system in Japan, JTEs are usually perceived by their students as authoritarian and superior. Japanese teachers of English still tend to rely on teacher-centered lectures, which may thwart students’ need for autonomy (Inomori, 2012). Prior research also showed that in East Asian cultures the satisfaction of the need for relatedness in the classroom has a greater effect on students’ self-determined motivation, rather than satisfaction of the need for autonomy (Bao & Lam, 2008).

Because JTEs speak students’ first language and share strong cultural values such as ‘mimamoru’ (observing and caring) and ‘omoiyari’ (empathy), the author suggests that they are probably better at satisfying the student’s need for relatedness, which requires empathy and interpersonal understanding. NESTs are in many cases regarded as unreachable distant role models (Jenkins, 2012), and thus possibly cannot fulfill the need in the same way as JTEs do. Nevertheless, they likely better satisfy the autonomy need as their teaching practices are perceived by many as student-led rather than teacher-centered.

Several studies conducted in the last two decades have investigated the relationship between autonomous motivation and academic achievements in Japanese educational settings. Nishimura et al. (2011) showed that the more autonomous Japanese students felt, the higher their academic achievements were. There have been several studies done in Japan exploring students’ perceptions of different types of teachers (Carson, 2019). However, there are no studies that have evaluated how different teachers affect students’ satisfaction with basic psychological needs of autonomy, competence, and relatedness in the English classroom.

**Emergency Remote Teaching during Coronavirus Pandemic and SDT**
Due to the worldwide outbreak of COVID-19, the education system in Japan and many other parts of the world has been experiencing a drastic transformation from traditional face-to-face to online form. The interest in the effectiveness of online education and student-teacher interaction in the online classroom is not new and it is constantly growing (Liyanagunawardena et al., 2013). However, due to the time constraint during the pandemic transformation, a rather new type of online teaching appeared that has not yet been studied enough.

Emergency Remote Teaching (Hodges et al., 2020) (ERT) is defined as a sudden shift to online curriculum from initially planned traditional classroom (Hodges, et. al., 2020). One of the essential questions asked by the language education researchers in 2020 is the quality of student satisfaction with the online classes presented this way, compared to the traditional classroom. As the adoption of online learning system was unexpected, it caused teachers to search for new approaches and teaching methods, sometimes very different from the ones they used to rely on. Such transformation could have led to an increasing level of misunderstanding of material presented, directly affecting students’ levels of learning motivation.

In a study of mobile learning applications and their influence on satisfaction of basic psychological needs for autonomy, competence, and relatedness (Jeno et al., 2019), the positive effect on the need for autonomy became evident, as students have more opportunities to engage in the learning process at their discretion and individual pace. At the same time, the researchers find online learning environments to frustrate relatedness (Butz & Stupnisky, 2017). Wang et al. (2019) show that there are differences in the size effect of need satisfaction on motivation in online classrooms compared to face-to-face learning. Some research even claims that the need for competence has the strongest correlation with motivation in the online environment, while autonomy has the weakest (Fang et al., 2019).

In contrast with a situation when basic needs are satisfied by the thoughtful organization of the online course, unplanned ERT creates different environments. Students may face trouble participating in group and pair work, find themselves in isolation more often than in face-to-face classes, not being able to develop relationships with their classmates and teacher, misunderstand tasks, and struggle to manage the independent study. Therefore, the author finds it important to use the self-determination theory and compare the student motivation in Japanese tertiary settings before and after the COVID-19 outbreak.

Based on the above-mentioned literature review, the current study’s first objective is to investigate whether teachers’ support of the basic psychological needs has a direct influence on the students’ self-determined motivation. Based on the SDT, the more satisfied students’ basic psychological needs of autonomy, competence and relatedness are, the higher their autonomous motivation is expected to be. The other objective of the study is to analyze the difference in students’ perceived support of their needs from NESTs and JTEs. Finally, the last objective is to examine how these perceptions and motivation in ERT online educational environment differ from a regular face-to-face classroom.

The hypotheses of the study are as follows:
1. Teachers’ support of students’ basic psychological needs has a direct influence on the levels of participants’ self-determined motivation. The more support the students perceive from their teachers, the higher levels of autonomous motivation they have.
2. Teachers’ support of students’ basic psychological needs is different in NESTs and JTEs classrooms.
3. Face-to-face and ERT forms of English language education have different effects on the students’ motivation and their satisfaction need level.

## Participants and Methodology

### Participants

The study was conducted in a private women’s university in Tokyo, Japan. Foreign and Japanese teachers employed there are often assigned to teach in pairs the same courses, using the same textbooks, teaching individually on different days of the week. Freshmen, sophomore, and junior students from the Business Design department taking classes from both types of teachers were asked to participate in this study at the end of the spring semester 2018 (N=378), and at the end of the spring semester 2020 (N=165). All students who participated in the studies have signed the consent form, presented to them in Japanese at each stage of the research (Yazawa, 2019).

### Research method

The latest version of an SDT scale adapted for Japanese university students that includes different constructs of their motivation has been created and validated by Agawa and Takeuchi (2016). It includes statements measuring amotivation; external, identified regulations; intrinsic motivation; and perceived autonomy support. A 5-point Likert Scale was used for the questionnaire items with options ranging from “not true at all”, “not true”, “cannot say”, “true”, to “very much true”. The items were in Japanese, presented in electronic form, and randomly ordered for each student.

### Results

The data derived from the motivational and psychological needs’ scale were analyzed in the SPSS software. The Cronbach’s Alpha for the first sample was 0.9, and for the second 0.7, providing sufficient reliability of the results. The results indicated that the participants in both samples had experienced rather autonomous than the external type of motivation to study English (Table 1). Identification was reported as the strongest motivational regulation (4.1 in face-to-face and 4.2 in ERT environment), with intrinsic following second (3.5 and 3.7), external-third (2.8 and 2.7), and amotivation scoring the lowest (1.9 and 1.9) (Yazawa, 2019).
After integrating different types of motivation into the Self-Determination Index by assigning a weight of +2 to intrinsic, +1 to identified, -1 to external, and -2 to amotivation, a single self-determined index (SDI) for the total sample was calculated (Vallerand & Bissonnette, 1992). The positive SDI of 4.6 in the first sample and 5.7 in the second are above 0, therefore the students can be defined as very self-determined (Yazawa, 2019).

### Table 1

*Motivational Items before and after COVID-19*

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic Before</td>
<td>378</td>
<td>3.5388</td>
<td>.76253</td>
<td>.03922</td>
</tr>
<tr>
<td>Intrinsic After</td>
<td>165</td>
<td>3.6980</td>
<td>.75855</td>
<td>.05905</td>
</tr>
<tr>
<td>Identified Before</td>
<td>378</td>
<td>4.1274</td>
<td>.63994</td>
<td>.03291</td>
</tr>
<tr>
<td>Identified After</td>
<td>165</td>
<td>4.2020</td>
<td>.65920</td>
<td>.05132</td>
</tr>
<tr>
<td>External Before</td>
<td>378</td>
<td>2.8122</td>
<td>.87183</td>
<td>.04484</td>
</tr>
<tr>
<td>External After</td>
<td>165</td>
<td>2.7364</td>
<td>.96361</td>
<td>.07502</td>
</tr>
<tr>
<td>Amotivation Before</td>
<td>378</td>
<td>1.9101</td>
<td>.75564</td>
<td>.03887</td>
</tr>
<tr>
<td>Amotivation After</td>
<td>165</td>
<td>1.8521</td>
<td>.85992</td>
<td>.06694</td>
</tr>
</tbody>
</table>

The three needs were all strongly interrelated (p< .01) in both samples. Students who had one need met were also most likely to have the other needs satisfied. All three needs were correlated with motivation, positively with intrinsic motivation and identified regulation, and negatively with external motivation and amotivation. Pearson’s correlation analysis was conducted to find out if the perceived psychological needs support from different groups of teachers had any correlation with the motivational items (Table 2). All three needs were more satisfied in face-to-face classes with NESTs than with JTEs. The results also showed that all three needs satisfaction in face-to-face classes with NESTs had a significant positive correlation effect size (> .3) with autonomous motivation (intrinsic .414** and identified regulations .321**) and a medium negative correlation with controlled (external regulation -.216**).

At the same time, satisfaction of only one psychological need in face-to-face classes with JTEs—the autonomy need—had a medium or small size effect with all motivational items (intrinsic .269**, identified .204**, and external -.159**). The level of competence with JTEs in face-to-face classes had a medium size correlation with intrinsic (.255**) and small correlation with identified regulations (.137*), but no correlation with controlled motivation. Finally, the fulfillment of the need for relatedness students perceived in traditional classes with JTEs did not affect their motivation at all.

### Table 2

*Correlation Analysis of Need Satisfaction and Motivational Items before and after COVID-19*

<table>
<thead>
<tr>
<th></th>
<th>Intrinsic</th>
<th>Identified</th>
<th>External</th>
<th>Amotivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AN Before</td>
<td>.414**</td>
<td>.321**</td>
<td>-.216**</td>
<td>-.295**</td>
</tr>
</tbody>
</table>
The numbers were different however in the ERT sample. The need for autonomy in NESTs classrooms was similarly greatly correlated to autonomous motivational items (intrinsic and identified regulations) as in the face-to-face sample. At the same time, in online classes with JTEs, the need for autonomy revealed a much higher effect size to autonomous motivation than in face-to-face classes. The need for competence weakened its effect size to learning motivation in online classes with NESTs, while in classes with JTEs it noticeably strengthened its position (change > .1 for intrinsic and >.09 for identified). The need for relatedness increased its correlation with autonomous motivation in cases of both types of teachers; however, in JTEs classes the size rise was much more noticeable (> .2 for Intrinsic and >.1 for Identified regulations). In this way, the need for relatedness in classes with JTEs in ERT environment became a more powerful construct than in face-to-face classes, where it did not determine the learning motivation at all.

When SDI was used to determine the hierarchy of size effects on students’ motivation to learn English, the following became clear: the most significant positive size effect in face-to-face classes between SDI and needs satisfaction was with the need for competence, followed by the need for autonomy, and relatedness with NESTs (Table 3). Moderate correlation with the SDT had the satisfied need for autonomy with JTEs, followed by the need for competence. However, in ERT environment, the need for competence with NESTs abruptly lost its effect size, becoming third in the hierarchy. Satisfaction of autonomy and relatedness need in online classes with NESTs had the same effect on SDI as in face-to-face classes. Satisfaction of one need—relatedness—in online classes with JTEs revealed a positive change from the face-to-face environment, with a small (r=.16), but significant size effect.

### Table 3
**Correlation of the SDI with Need Satisfaction Face-to-Face and ERT**

<table>
<thead>
<tr>
<th>Competence with NESTs Face-to-Face</th>
<th>.433**</th>
</tr>
</thead>
<tbody>
<tr>
<td>In ERT environment</td>
<td>.271**</td>
</tr>
<tr>
<td>Autonomy with NESTs Face-to-Face</td>
<td>.398**</td>
</tr>
<tr>
<td>In ERT environment</td>
<td>.400**</td>
</tr>
</tbody>
</table>

Note: A(C or R)N-autonomy (competence or relatedness) need satisfaction with NESTs, and A(C or R)J-autonomy (competence or relatedness) need satisfaction with JTEs.
A T-test analysis of means was used to determine whether the students’ fulfillment of the three psychological needs in classes with NESTs and JTEs was different in face-to-face and online classes (Table 4). The results indicate that all three basic psychological needs are better satisfied in classes with NESTs than with JTEs in a face-to-face environment. At the same time, the need for autonomy showed a noticeable (.>3) increase in satisfaction levels for both teachers in the online environment, as well as the need for competence in JTEs classroom.

Table 4
Need Satisfaction: T-test Analysis

<table>
<thead>
<tr>
<th>Need</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>AN Before</td>
<td>3.8196</td>
<td>.57546</td>
<td>.02964</td>
</tr>
<tr>
<td>AN After</td>
<td>4.1061</td>
<td>.62418</td>
<td>.04859</td>
</tr>
<tr>
<td>AJ Before</td>
<td>3.4576</td>
<td>.55621</td>
<td>.02923</td>
</tr>
<tr>
<td>AJ After</td>
<td>3.7293</td>
<td>.65703</td>
<td>.05115</td>
</tr>
<tr>
<td>CN Before</td>
<td>3.6401</td>
<td>.67215</td>
<td>.04145</td>
</tr>
<tr>
<td>CN After</td>
<td>3.7616</td>
<td>.74245</td>
<td>.05780</td>
</tr>
<tr>
<td>CJ Before</td>
<td>3.2596</td>
<td>.60115</td>
<td>.03779</td>
</tr>
<tr>
<td>CJ After</td>
<td>3.5818</td>
<td>.70003</td>
<td>.05450</td>
</tr>
<tr>
<td>RN Before</td>
<td>4.0980</td>
<td>.59742</td>
<td>.03691</td>
</tr>
<tr>
<td>RN After</td>
<td>4.0212</td>
<td>.75779</td>
<td>.05899</td>
</tr>
<tr>
<td>RJ Before</td>
<td>3.4071</td>
<td>.63120</td>
<td>.03968</td>
</tr>
<tr>
<td>RJ After</td>
<td>3.5556</td>
<td>.83075</td>
<td>.06467</td>
</tr>
</tbody>
</table>

Note: A(C or R)N-autonomy (competence or relatedness) need satisfaction with NESTs, and A(C or R)J-autonomy (competence or relatedness) need satisfaction with JTEs
It is important to notice here that though the average satisfaction of the need for relatedness in JTEs online classes did not significantly change from the face-to-face environment, it did however change its effect size on the self-determined motivation. The same could be said about the need for competence in NESTs classrooms: numerically it did not change much, if not even increased, but its power on self-determined motivation significantly weakened.

The average needs satisfaction for both types of teachers have changed their positions in the ranking, and in ERT environment showing autonomy need as most satisfied, putting relatedness need into a second position and leaving competence need noticeably increased but still at the third (Figure 1). Autonomy need satisfaction after the COVID-19 outbreak had the highest size effect on the self-determined motivation, as a result, the students in the second sample had a higher SDI than in the first (>1.1).

**Figure 1**
*Average Needs Satisfaction Change before and after COVID-19*

After analyzing the data, the author approached two NESTs and asked them to describe the methods they used to support the students’ level of relatedness in their online classroom. Both teachers stated that they use zoom break-out rooms, however they found it difficult to supervise the work in different rooms at the same time. Following are four comments from the teachers: “In my classrooms, I guess the students show "relatedness" in a break-out session with a group of three or four.” “I sometimes think that instead of running through all 90-minute class, it is better to simply break up the session into four with only 4-5 students”. “One of the biggest challenges seems to be how to find a way so that they all "unmute" as if we are face to face. Do not know how, for the moment.” “In small groups, I would have made it mandatory to turn on the camera, but it was not possible because of privacy issues. If it had been, all of us would definitely would have known each other better.”
Discussion of the Results

The results showed that all three needs of satisfaction had a significant positive correlation with self-determined motivational variables both in face-to-face and in ERT environments. Therefore, according to the finding of this study, it became evident that fulfillment or frustration of psychological needs of students has a great impact on their English learning motivation, and what is more, did not diminish its effect under Emergency Remote Teaching.

The connections of the teacher’s need support and intrinsic and identified regulations testified for the fact that there is a connection of this type of teacher’s support with the students’ enjoyment and understanding of the importance of the educational process. It is important to note that the higher the level of internalization of motives, the higher the correlation coefficient. The presence of a negative connection between the teacher’s needs support and the external motivation of the subjects confirmed the authors’ assumption that in the environment where the teacher is controlling the students, the external motivation dominates; and on the other hand, where the teacher supports students’ needs, pronounced intrinsic and identified motivation prevail.

According to the findings of this study, the author believes that fulfillment or frustration of basic psychological needs with NESTs has a greater impact on students’ motivation than what they experience with JTEs in a face-to-face environment. The reason for this could lie in different expectations students have towards different types of teachers, or the different styles in teaching these two groups are associated with. Indeed, the qualitative survey with the same sample of students (Yazawa, 2019; Yazawa, in press) revealed that the students thought that foreign teachers provide a cozy and exciting atmosphere in the face-to-face classroom, which directly links to the satisfaction of the need for relatedness. They stated that NESTs use various group and pair activities, accentuate communicative learning and respect students’ opinions, and take into consideration their viewpoints (Yazawa 2019, Yazawa, 2021).

When describing JTEs in the face-to-face classroom, the students tended to mention easiness of communication and the Japanese language ability of the teachers. Many students stated they felt secure and at ease in classes with JTEs. One can argue that this approachability and easiness in communication should be enough to satisfy the need for relatedness. However, this does not seem to be a case in the face-to-face classroom, where the students described it as a rather friendly environment and peer relationships to fulfill their need than easiness of communication through their first language use (Yazawa, in press). Relatedness in face-to-face classes with Japanese teachers of English appeared to be a construct not affecting the level of autonomous or controlled motivation at all. However, in unexpected online environments during COVID-19 pandemics the level of all needs satisfaction with JTEs among the students increased, including relatedness. It could be speculated here that such sources of relatedness as group and pair work were less accessible to students in ERT classroom, and instead, they found it in conformity, familiarity, or first language use with Japanese teachers of English.
The increase in autonomous need satisfaction in online classes with both types of teachers lined up with previous research findings revealing that online form of education provides better support for autonomy. As a result, students in online classes had a higher level of self-determined motivation. At the same time, as was expected, the findings showed that the need for relatedness was less satisfied than the need for autonomy in the ERT environment. Follow up interview with NESTs showed that teachers found it difficult to adjust to the new situation and support the students’ need for relatedness in the online classroom.

Further analysis suggested that in maintaining self-determined motivation (SDT Index), the most significant contribution to motivation in a face-to-face classroom was made by the satisfaction of the need for competence by NESTs, and a slightly smaller contribution was made by the need for autonomy, followed by the need for relatedness. However, it is worth mentioning that the correlation of satisfaction of confidence needs in online classes with NESTs and SDI has significantly weakened its effect size compared to the face-to-face environment. In other words, the satisfaction of competence needs affected the autonomous motivation less in the online classroom, than it did in the face-to-face one. This could be explained by the possible complexity of online material presentation in ERT, the limited ability of the students to get appropriate and timely feedback, and effectively cope with the tasks, as it is believed to be easier for them to ask direct questions in the face-to-face classroom.

Conclusion

Meeting basic needs in Japanese university classrooms before and after the COVID-19 outbreak has proven to be one of the most important motivators for studying English. Online education, even under ERT conditions, satisfies better the need for autonomy, than the face-to-face classroom, and at the same time presents a challenge for growth to the need for relatedness. The data obtained in this study makes it possible to conclude that even being far from perfectly structured, ERT teachers’ support meets the basic psychological needs of the students, some of which even better than in the traditional classroom.

Like most teachers, teachers of English in Japan have experienced various difficulties in the transition to the online format, both technically and psychologically. Many took more time to prepare for lessons and often had to write new materials and learn new online tools. The online environment sets a different tone for the distribution of time, concentration, rules, and behavior of students and teachers. While the well-satisfied need for autonomy is important for self-determined motivation to learn, the need for relatedness should be paid closer attention to in the online classroom. When human interaction is limited to the computer screen, teachers are advised to facilitate a sense of relatedness through interactive presentation tools, peer-assisted learning, SMS for troubleshooting and group work, Zoom polls, and breakroom sessions with cameras not only for discussions but also for fun educational games and free chat. Further qualitative research is required to substantiate the assumptions made in this study, test possible implications, and bring more light on the
benefits and disadvantages of Emergency Remote Teaching and learning in Japanese tertiary settings.

References


