



Investigating Student Satisfaction With Distance Learning and Influencing Factors: A Case of Korean EFL Middle School Students

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ABSTRACT

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The purpose of this paper was to investigate student perceptions and satisfaction of distance learning (online classes) in Korea. This study also examined factors affecting Student Satisfaction with Online Classes (SSOC) using a survey. The participants of the survey were from middle schools, and responses were obtained from a total of 971 students. The data were collected through an online survey tool called *Eureka* and statistically analyzed. The research findings show that there was a significant difference between gender and SSOC. A one-way ANOVA and a Scheffe post hoc test showed that there were statistically significant differences between grades. The Pearson product moment correlation (PPMC) indicated that there was a significant positive relationship between teacher's feedback, interaction, motivation, and SSOC. On the other hand, there was a significant negative correlation between technical problems and SSOC. Students preferred immediate feedback from teachers and they suggested that online classes should provide more opportunities for interaction between teachers and students to make successful online classes. This research provides insights about aspects to consider for English teachers when they teach English online to keep students engaged in online classes.

I. INTRODUCTION

Coronavirus disease (COVID-19) has changed everything in human life including education system and people started to notice the incredible impact of COVID-19 in 2020. The Korean government postponed school opening in March because many people are concerned about students' infection through contact among students because enclosed, packed classrooms could host new clusters of infections. Students were supposed to go to school on April 6, but South Korea extended its social distancing campaign due to continuing spread of the novel coronavirus. The online classes started from the third graders of high school

and middle school students on April 9. The first and second graders of high and middle schools and the fourth to sixth graders of elementary school started on April 16. The first to third graders of elementary schools started on April 20.

There were several options for online classes. First, teachers could hold real-time classes using interactive live streaming services such as Zoom and Google Meet. Second, they could opt for pre-recorded materials readily available or prepared by themselves and uploaded on an online platform such as Google Classroom or EBS Online Class. Third, they could just use material on educational broadcasting channel EBS and give students assignments.

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Teachers checked attendance of students and the progress of classes by using a number of tools, such as Zoom, a video conferencing platform; Class123, a classroom management tool; OneNote, a digital note-taking app; Google Form, a survey administration app; and an online messenger Kakao Talk.

However, there were many problems with the online classes. First, teachers were inexperienced in holding classes online. Of course there were teachers who were good at using smart devices such as tablet PC, smart phone and internet, but most of teachers were not familiar with online classes. Teachers had difficulty making class video clips to provide students with class information and learning materials. Second, smart devices and internet connections were not equally available for all schools and students. Smart devices were not available for students in low-income families. Internet speed was not fast enough to connect to online classes and connections had problems. Sometimes internet access was delayed because approximately 4 million students tried to attend online classes at the same time. Third, parents could not afford to supervise their children taking online classes at home when both parents were working. Fourth, technical problems stemming from overloaded traffic to e-learning websites and the EBS Online Class for middle school students experienced a server problem for about an hour. Fifth, the quality of classes varied depending on the preparedness of teachers and schools. Some parents complained that their children had too much homework and only few real time online classes were provided. Sixth, it was very hard to take care of students who lack motivation and need care. Some students were playing games, speaking on mobile phones, and dozing during the online classes. Seventh, it took a lot of time for teachers to prepare a 45- or 50-minute class. Due to the unfamiliarity of technology, teachers had to use more time than usual to prepare a class.

Distance learning existed in the past but current online classes are quite different from past distance learning in the scale of participants and reasons for attending classes online. Therefore, we can say that online classes are a completely new way of learning and it is going to be a new norm providing an opportunity for the country's education to develop in terms of its content and structure. The unprecedented beginning of new semester online posed challenges among teachers. They were required to shoot videos, upload to websites, and struggling to prepare for online classes fraught with challenges.

If the virus surges, the Ministry of Education will close schools and shift to online classes. Thus, many people began to wonder if this distance learning experiment will succeed and what they should prepare to make the distance learning successful in Korea. However, there is little empirical research investigating students' satisfaction and factors that make distance learning successful. Plus, investigating students' satisfaction or other factors that make distance learning successful will be helpful to offer better experiences of distance learning to teachers and students. Therefore, it is time to think about the factors to

make online classes successful.

II. BACKGROUND

1. Definition of Distance Learning

There are many researchers who define distance learning. According to Roffe (2002), distance learning refers to the way people communicate and learn by electronic means. Conrad (2006) argued that distance learning occurs when students and instructors do not meet personally in the same physical space. The term distance learning is also used interchangeably with terms such as e-learning, online learning, and web-based learning. According to Engelbrecht (2005), e-learning is the delivery of teaching materials via electronic media such as Internet, Intranets, Extranets, satellite broadcast, audio/video tape, interactive TV, and CD-ROM. Kelly and Bauer (2004) view e-learning as a web-based learning which utilizes web-based communication, collaboration, knowledge transfer, and training to add values to the individuals and the organizations.

The terms *online learning* and *e-learning* are used interchangeably, but there are some distinctions. The term *e-learning* encompasses any form of technology while *online learning* refers to using the internet and the web (Bates, 2005).

Ally (2008) defines *online learning* in the following way:

... the use of the Internet to access materials; to interact with the content, instructor, and other learners; and to obtain support during the learning process, in order to acquire knowledge, to construct personal meaning, and to grow from the learning experience. (p. 7)

There are several types of distance learning: Electronic learning (E-Learning), Mobile Learning (M-Learning), and Ubiquitous Learning (U-Learning). E-learning is any learning that is internet-enabled or web-based (Keller & Cernerud, 2002; LaRose, Gregg, & Eastin, 1998). E-learning is sometimes regarded as a synonym with online learning or distance learning on the Internet. Computer-Assisted Language Learning (CALL) provides learning environments conducive to language development (H. Y. Kim, 2010). Contemporary CALL using the Internet can be also part of E-learning. M-Learning is "learning across multiple contexts, through social and content interactions, using personal electronic devices" (Crompton, 2013, p. 4). U-Learning is an everyday learning environment that is supported by mobile and embedded computers and wireless networks in our everyday life (Ogata, Matuska, El-Bishouty, & Yano, 2009). It provides learners with content and interaction anytime and anywhere (Hwang, Tsai, & Yang, 2008).

Distance learning activities can be divided into two groups: synchronous and asynchronous (Billings, Ward,

& Penton-Cooper, 2001; Lewis, 2000). Synchronous activities refer to both teachers and students communicating on the computer-based network such as Zoom, one of the videoconferencing tools, at the same time. Both computer users can hear voice and see pictures on the screen simultaneously. However, asynchronous activities do not happen at the same time. Students watch video clip, read learning materials that are posted by their teachers in advance.

In summary, distance learning is a way of learning remotely without being in regular face-to-face contact with a teacher in the classroom. Technology such as Internet, Zoom, and videoconferencing bridges the physical spaces between teachers and learners. Therefore, distance learning describes any learning that happens without the students being physically present in the lesson.

2. The History of Distance Learning

Distance education can be divided into three generations. The first generation of distance education can be defined by print technology. Correspondence education which combines printing press technology and postal services was widely available. In 1897, students of instructors in distance education were separated by time and distance, which is the origin of correspondence programs in distance education history (Parker, 1999).

The second generation of distance education starts with the ability to broadcast using technologies such as radio and television. In the 1960s, as radio and television became popular and widespread, distance learning moved from the postal service and began to utilize electronic media. The establishment of the Open University in the United Kingdom marked the beginning of the use of electronic technology.

The third generation of distance education based on the synchronous teleconferencing and videoconferencing tools such as zoom. In the third generation of distance education, both teachers and students can communicate each other at the same time using modern technology such as web camera.

3. The Advantages and Disadvantages of Distance Learning

There are many advantages of distance learning. First, the top benefit of distance education is its flexibility. Students can choose the time, place, and medium for their education. Second, it offers every student the opportunity to learn and improve themselves in the environment they find the most effective. Third, it costs less than traditional classroom tuition when a student is going to get a degree. Fourth, it provides many opportunities for student-centered and interactive learning environments that support active learning (Huffaker & Calvert, 2003; H. J. Lee, 2011; Zhang, Zhao, Zhou, & Nunamaker, 2004). While students passively receive information from the teacher in

the traditional lecture, students actively receive information from active learning, which is an instructional method that engages students in the learning process by requiring students to do meaningful learning activities (Bonwell & Eison, 1991).

While there are a variety of advantages of distance learning, there are a few disadvantages of distance learning. First, it requires learners' self-discipline and motivation (Cantoni, Cellario, & Porta, 2004). Second, technical problems may interrupt the online class and create confusion for the teacher and students. Third, it is not easy to build rapport through online classes.

4. Previous Research of Distance Learning

Much research has defined and assessed student satisfaction with online learning. Student satisfaction is imperative because it causes student engagement, motivation, success, learning, and performance (Wickersham & McGee, 2008). There are several factors contributing to student satisfaction. First of all, the instructor is the main predictor in student satisfaction (Finaly-Neumann, 1994; Williams & Ceci, 1997). Student satisfaction has a strong positive correlation with the instructor's performance, availability and response time (DeBourgh, 1999; Hiltz, 1993). When students have questions, instructors must be available (Moore & Kearsley, 1996) because the instructor is both a facilitator of learning and a motivator for the student. According to Finaly-Neumann (1994), the instructor's feedback is the most important factor in satisfaction with instruction.

The interaction in distance learning is also very important and according to Moore and Kearsley (1996), there are three types of interaction: (1) learner-content, (2) learner-instructor, and (3) learner-learner. It is important for instructors to facilitate all types of interactions in their distance learning. The interaction between the learner and content happens when a student reads a book or printed study materials. The interaction between the learner and instructor occurs when the instructor attempts to motivate the student to study learning materials the instructor created or posted on the web. The interaction between learner and learner happens when learners work together to practice a dialogue, discuss problems, and debate the material presented in the course (Moore, 1989). Gass and Varonis (1994) investigated the relationship among input, interaction and second language production. They found that interaction affects task performance and is beneficial.

In addition, technology including Internet access and reliable equipment plays an important role in successful distance learning. It goes without saying that students who have unlimited access to the Internet are at a considerable advantage to students who have limited online access. Students who report frustration with technology show lower satisfaction levels in the distance learning (Chong, 1998; Hara & Kling, 2000).

Administrative support such as technical support is necessary for students to get assistance when they have technical and learning problems (Moore & Kearsley, 1996). Students who cannot receive technical support experience high levels of frustration in the online learning (Hara & Kling, 2000).

Students also must be responsible for their own learning (Belanger & Jordan, 2000). Students with positive attitudes were more satisfied with the online learning and spent more time engaged online (Hiltz, 1993).

Convenience of online class is one of the important factors for increasing students' satisfaction. Students perceived the convenience of the online course as a benefit and they enjoyed the flexibility of the online learning environment (Maki, Maki, Patterson, & Whittaker, 2000).

Motivation is defined as "the process whereby goal-directed activity is instigated and sustained" (Schunk, Pintrich, & Meece, 2008, p. 4). Dörnyei (2009) argued that motivation is a learner construct that is positively correlated with foreign language learning. Schunk (1995) claimed that motivation can influence what we learn, how we learn, and when we choose to learn. Poor motivation has been considered as an important factor in contributing to the high dropout rates from online courses (Muilenburg & Berge, 2005). Online students are more intrinsically motivated than their on-campus counterparts at both undergraduate and postgraduate level (Rovai, Ponton, Wighting, & Baker, 2007).

Up to now, there were few studies which investigated the effectiveness of distance learning and middle school student satisfaction with online classes in Korea. Therefore, this research aims to find out the perceptions, effectiveness of distance learning, and factors that affect student satisfaction with online classes. The Null Hypotheses formulated in this study are as follows:

- 1) H_01 : There is no statistically significant difference between gender and Student Satisfaction with Online Classes (SSOC).
- 2) H_02 : There are no statistically significant differences between grades and SSOC.
- 3) H_03 : There is no correlation between feedback and SSOC.
- 4) H_04 : There is no correlation between interaction and SSOC.
- 5) H_05 : There is no correlation between motivation and SSOC.
- 6) H_06 : There is no correlation between technical problem and SSOC.

III. METHOD

1. Participants

To find out the responses from students toward distance education a survey regarding distance education was con-

ducted in Daejeon, Korea. The period for this research was from April 16 to May 27 in 2020. The participants in the survey were 971 students (421 male students, 550 female students). Students from 35 middle schools in Daejeon participated in this research.

2. Survey

Student perceptions of satisfaction with distance learning were measured using an online survey. The questionnaire consisted of 10 items. There were two questions asking the students' gender and grade (Q1 and Q2). Q3 was about to find out the types of online classes students attending. Q4 and Q5 asked about the advantages and disadvantages of online classes. Q6 was about students' satisfaction with online classes. Q7 was about students' satisfaction with teachers' feedback. Q8 asked if technical problems influenced classes and student satisfaction. Q9 asked whether online classes increased student learning motivation. Q10 asked whether students could interact with classmates. Q6 to Q10 were presented on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The author sent the survey link to the teachers and it was introduced to the students to participate in the survey voluntarily.

3. Procedures and Data Analysis

The data of this paper were collected using Eureka, an online survey tool. This study employed Statistical Package for the Social Sciences (SPSS) 22.0 to analyze the data from the questionnaire. The survey questions were focused on finding out about students' satisfaction and perceptions on distance learning. This study checked the internal reliability of questions. The Cronbach's Alpha was 0.792, which is an acceptable level. In addition, this study employed the Pearson correlation analysis for checking the relationship between gender and distance learning satisfaction. A stepwise multiple regression analysis was employed to prove the significance of the independent variables to SSOC. To avoid violating the basic assumptions underlying the method of least squares used by the classical linear regression model, a P-P plot for assessing the assumption of normality was drawn and examined. The plot showed that the quantile pairs fell nearly on a straight line. Therefore, it is reasonable to conclude that the data used in this research are in a normal distribution. Second, this research used the condition index (C. I.) to assess the multicollinearity problem among independent variables. The value of 22.05 indicated no severe multicollinearity problem among the regressors. Finally, the author used the Durbin-Watson statistics for detecting serial correlation. The value of 1.871 (less than 2) indicated the autocorrelation problem does not exist.

IV. RESULTS

The following are the tables showing the numbers and percentage of responses from middle school students for the survey. Table 1 shows the descriptive information of the participants. The total number of the participants in this study was 971. There were more female students ($n = 550, 56.64\%$) than male students ($n = 421, 43.35\%$). There were 321 students (33.06%) in 1st grade, 362 students (37.28%) in 2nd grade, and 288 students (29.66%) in 3rd grade.

TABLE 1
Descriptive Statistics of Participants ($n = 971$)

| | Group | <i>n</i> | % |
|--------|-----------|----------|-------|
| Gender | Male | 421 | 43.35 |
| | Female | 550 | 56.64 |
| Grade | 1st grade | 321 | 33.06 |
| | 2nd grade | 362 | 37.28 |
| | 3rd grade | 288 | 29.66 |

Table 2 reveals the types of online classes and the number of students in online classes. Type 1 is classes involving real-time interaction such as Zoom, Google Hangouts, and Microsoft Teams. For example, in Type 1, teachers provide immediate feedback, including real-time communications and discussions by using video-conferencing tools. Type 2 is classes using online lectures pre-recorded or learning materials pre-uploaded. For instance, in Type 2, teachers provide students with video-recorded lectures and/or learning contents, then they monitor how much students have learned. Type 3 is classes giving projects to solve to students. In Type 3, teachers give projects (tasks) for self-directed learning and monitor students' progress based on achievement standards of each subject. Type 4 is classes combined with more than 2 types of online classes. Table 2 shows that Type 1 (Real-time interaction) was the lowest ($n = 15, 1.55\%$) and Type 4 (Mixed) was the highest ($n = 473, 48.71\%$) among the four types of online classes.

TABLE 2
Types of Online Classes and Number of Students

| Types of Online Classes and Number of Students | <i>n</i> | % |
|--|----------|-------|
| Type 1 (Real-time interaction) | 15 | 1.55 |
| Type 2 (Pre-uploaded teaching material) | 247 | 25.44 |
| Type 3 (Task performance centered class) | 236 | 24.31 |
| Type 4 (Mixed) | 473 | 48.71 |
| Total | 971 | 100 |

Table 3 indicates descriptive statistics about the survey results examined with respect to gender. As seen in the results, the female students' mean score ($M = 3.23$) was higher than the male students' mean score ($M = 3.02$).

TABLE 3
Descriptive Statistics of Gender

| | Group | <i>n</i> | <i>M</i> | <i>SD</i> | <i>SE Mean</i> |
|----------------------|--------|----------|----------|-----------|----------------|
| Student satisfaction | Male | 421 | 3.02 | 1.18 | .058 |
| | Female | 550 | 3.23 | .98 | .042 |

To examine whether there is any statistical difference in the student satisfaction with online classes by gender, an Independent Samples *t*-test was conducted with gender as the independent variable and the student satisfaction as the dependent variable. The output of the independent *t*-test presented in Table 4 showed there was a statistically significant gender difference regarding student satisfaction with online classes ($t = -3.001, p = .003$). Therefore, the first hypothesis (There is no statistically significant difference between gender and student satisfaction with online classes.) was rejected.

TABLE 4
Independent Samples *t*-Test

| | Levene's Test for Equality of Variances | | | <i>t</i> -Test for Equality of Means | | |
|------|---|----------|----------|--------------------------------------|----------|------|
| | <i>F</i> | <i>p</i> | <i>t</i> | <i>df</i> | <i>p</i> | |
| SSOC | Equal variances assumed | 4.632 | .032 | -3.001 | 969 | .003 |
| | Equal variances not assumed | | | -2.930 | 809.721 | .003 |

Note. SSOC = Student Satisfaction With Online Class

As shown in Table 5, the mean of the 1st grade was the highest and the mean of the 3rd grade was the lowest. To examine whether the difference in the student satisfaction scores with online classes is significant, a one-way ANOVA was conducted with the grade as the independent variable and the student satisfaction scores as the dependent variable.

TABLE 5
Descriptive Statistics for Grade and SSOC

| Group | <i>n</i> | <i>M</i> | <i>SD</i> | <i>SE mean</i> |
|-----------|----------|----------|-----------|----------------|
| 1st grade | 321 | 3.36 | 1.018 | .057 |
| 2nd grade | 362 | 3.13 | 1.020 | .054 |
| 3rd grade | 288 | 2.89 | 1.165 | .069 |
| Total | 971 | 3.13 | 1.079 | .035 |

The result presented in Table 6 showed there were significant differences among grades ($F = 14.348, p = .000$). To find out the differences between groups, the Scheffe post hoc test was employed. Table 7, Multiple Comparisons, shows which groups differed from each other. As shown in Table 7 there was a statistically significant difference between 1st grade and 2nd grade ($p = .025$). There was a statistically significant difference between 2nd grade and 3rd grade ($p = .017$). There was a statistically significant difference between 1st grade and 3rd grade ($p = .000$). Therefore, the second hypothesis (There are no statistically significant differences between grades and SSOC.) was rejected.

TABLE 6

ANOVA Summary for Online Class Satisfaction and Grade

| | Sum of Squares | df | MS | F | p |
|----------------|----------------|-----|--------|--------|-------|
| Between groups | 32.154 | 2 | 16.257 | 14.348 | 0.000 |
| Within groups | 1096.813 | 968 | 1.133 | | |
| Total | 1129.326 | 970 | | | |

TABLE 7

Multiple Comparisons

| (I)G | (J)G | Mean Difference (I-J) | Std. Error | 95% Confidence Interval | | |
|------|------|-----------------------|------------|-------------------------|-------------|-------------|
| | | | | p | Lower Bound | Upper Bound |
| 1G | 2G | .223* | .082 | .025 | .02 | .42 |
| | 3G | .463* | .086 | .000 | .25 | .67 |
| 2G | 1G | -.223* | .082 | .025 | -.42 | -.02 |
| | 3G | .240 | .084 | .017 | .03 | .45 |
| 3G | 1G | -.463* | .086 | .000 | -.67 | -.25 |
| | 2G | -.240 | .084 | .017 | -.45 | -.03 |

Note. 1G = 1st Grade, 2G = 2nd Grade, 3G = 3rd Grade
* $p < .05$

Regarding the third null hypothesis, the results of the Pearson correlation indicated that there was a significant positive relation between feedback and online class satisfaction as shown in Table 8 ($r = .550, p < .01$). Therefore, the third hypothesis (There is no correlation between feedback and SSOC.) was rejected.

As shown in Table 8 the Pearson product-moment correlation coefficient was conducted on the data to compare the correlations between the variables. Table 8 shows correlations between variables. The feedback variable has the highest correlation to the dependent variable, SSOC ($r = .550, p < .01$). Other independent variables that correlated with the dependent variable are: motivation ($r = .381, p < .01$); interaction ($r = .364, p < .01$); TP ($r = -.337, p < .01$); grade ($r = -.170, p < .01$); gender ($r = .096, p < .01$). All the factors exhibited significant relationships with SSOC. Therefore, the fourth hypothesis (There is no correlation between interaction and SSOC.) was rejected. The fifth hypothesis (There is no correlation between motivation and SSOC.) was rejected and motivation is positively related to SSOC. The sixth hypothesis (There is no correlation between technical problem and SSOC.) was rejected and the technical problems are negatively related to SSOC.

TABLE 8

Correlations Between the Variables

| | Gender | Grade | Feed-back | Inter-action | Moti-vation | TP | SSOC |
|-------------|--------|---------|-----------|--------------|-------------|---------|------|
| Gender | 1 | | | | | | |
| Grade | -.061 | 1 | | | | | |
| Feedback | .036 | -.183** | 1 | | | | |
| Interaction | .020 | -.072* | .349** | 1 | | | |
| Motivation | -.056 | -.075* | .281** | .167** | 1 | | |
| TP | -.049 | .187** | -.272** | -.163** | -.128** | 1 | |
| SSOC | .096** | -.170** | .550** | .364** | .381** | -.337** | 1 |

Note. TP = Technical Problem, SSOC = Student Satisfaction With Online Class
* $p < .05$, ** $p < .01$

To further investigate how much the five factors, Feedback, Motivation, TP, Interaction, and Gender, predict SSOC, a stepwise multiple regression analysis was conducted to access the contribution of independent variables to SSOC. The results were summarized in Table 9 and 10 as follows.

TABLE 9

Predicting SSOC From Independent Variables

| Model | Model Summary ^f | | | |
|-------|----------------------------|----------|-------------------|----------------------------|
| | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .550 ^a | .302 | .301 | .902 |
| 2 | .598 ^b | .358 | .357 | .865 |
| 3 | .625 ^c | .391 | .389 | .843 |
| 4 | .644 ^d | .415 | .412 | .827 |
| 5 | .649 ^e | .421 | .418 | .823 |

^aPredictors: (Constant), Feedback

^bPredictors: (Constant), Feedback, Motivation

^cPredictors: (Constant), Feedback, Motivation, TP

^dPredictors: (Constant), Feedback, Motivation, TP, Interaction

^ePredictors: (Constant), Feedback, Motivation, TP, Interaction, Gender

^fDependent Variable: SSOC

A Kolmogorov-Smirnov Normality test was conducted first to confirm that the dependent variable does obey the normal distribution before the multiple regression analysis was conducted, and the regression analysis can be performed ($p = .000$). The model given in Table 9 reveals that the dependent variable is SSOC and the predictors are interaction, gender, grade, motivation, TP, and feedback. The coefficient of multiple regression in Table 10 reveals that feedback, motivation, TP, interaction, gender share a significant linear relationship with the dependent variable.

The students were also asked to answer the strengths and weaknesses of online classes. The results of student responses are shown in Table 11.

As shown in Table 11, students chose the rank of strengths of distance learning as follows. Anytime access was the first in rank ($n = 264$). With online classes, students could learn and study from anytime with the use of computer and internet connection. Unlimited Access was the second in rank ($n = 244$). Unlike a traditional classroom, students said they were able to access the online classes an unlimited number of times and study learning materials as many times as they want. Individual learning pace was the third in rank ($n = 172$). Not all students learn at the same speed or at the same level. Some students have difficulty understanding the basic concept. Online classes made individual learning possible and fast learners could skip some parts of lecture and slow learners could repeat the learning material. Therefore, students could learn at his or her own pace. Anyplace access was the fourth ($n = 171$), students could access the online classes without going to school. No commuting was the fifth in rank ($n = 120$). Distance learning takes place online and students do not have to go to school and save time and money commuting to and from class venues.

Students chose the rank of weaknesses of distance learning as follows. High chances of distraction were the

TABLE 10
Coefficients in Multiple Regression Analysis

| Model | | Coefficients ^a | | | <i>t</i> | <i>p</i> |
|-------|-------------|-----------------------------|---------------------------|-------------|----------|----------|
| | | Unstandardized Coefficients | Standardized Coefficients | | | |
| | | <i>B</i> | Std. Error | <i>Beta</i> | | |
| 1 | (Constant) | 1.113 | .103 | | 10.810 | .000 |
| | Feedback | .595 | .029 | .550 | 20.474 | .000 |
| 2 | (Constant) | .175 | .142 | | 1.231 | .218 |
| | Feedback | .520 | .029 | .480 | 17.899 | .000 |
| | Motivation | .294 | .032 | .247 | 9.188 | .000 |
| 3 | (Constant) | .907 | .171 | | 5.296 | .000 |
| | Feedback | .468 | .029 | .432 | 16.001 | .000 |
| | Motivation | .282 | .031 | .236 | 9.010 | .000 |
| | TP | -.171 | .024 | -.189 | -7.250 | .000 |
| 4 | (Constant) | .738 | .170 | | 4.331 | .000 |
| | Feedback | .412 | .030 | .381 | 13.740 | .000 |
| | Motivation | .268 | .031 | .224 | 8.705 | .000 |
| | TP | -.610 | .023 | -.178 | -6.926 | .000 |
| | Interaction | .178 | .029 | 1.64 | 6.220 | .000 |
| 5 | (Constant) | .427 | .192 | | 2.220 | .027 |
| | Feedback | .409 | .030 | .377 | 13.681 | .000 |
| | Motivation | .275 | .031 | .231 | 8.974 | .000 |
| | TP | -.157 | .023 | -.174 | -6.808 | .000 |
| | Interaction | .177 | .028 | .163 | 6.219 | .000 |
| | Gender | .182 | .054 | .083 | 3.393 | .001 |

^aDependent Variable: SSOC

TABLE 11
Descriptive Statistics of Strengths and Weaknesses of Online Classes

| Rank | Strengths | <i>n</i> | Weaknesses | <i>n</i> |
|------|--------------------------|----------|------------------------------|----------|
| 1 | Anytime access | 264 | High chances of distractions | 425 |
| 2 | Unlimited access | 244 | Lack of feedback | 208 |
| 3 | Individual learning pace | 172 | Lack of interaction | 148 |
| 4 | Anyplace access | 171 | Technical problem | 115 |
| 5 | No commuting | 120 | Poor contents | 75 |

first in rank ($n = 425$). Students were distracted to many things such as TV drama, delicious food in the refrigerator, and online games. All those things prevented students from concentration. Lack of feedback was the second in rank ($n = 208$). Online classes provide less individual feedback and support than face-to-face learning. Sometimes students had to wait a few hours or days until they receive a response from teachers. This might have limited their personal learning experience to a certain extent and prevented them to fully understand the education material. Lack of interaction with students was the third in rank ($n = 148$). Although students could interact through discussion boards, emails, video conferencing software, the experience could not be compared to that of a traditional classroom. Students said it was very hard to keep track of their assignments without face-to-face interaction with teachers and other students. Students can make good friends at school and learn from their friends. However, online classes do not provide this kind of interaction. Technical problem was the fourth in rank ($n = 115$). Sometimes students could not access the learning site and download learning

materials. Poor contents were the fifth in rank ($n = 75$). Some students complained that teachers just linked EBS site and they could not see their school teachers' face or listen to teachers' voice.

V. DISCUSSION AND CONCLUSION

This study examined student perceptions of online classes and Student Satisfaction with Online Classes (SSOC). The first hypothesis stated that there is no statistically significant difference between gender and SSOC. The research results reported significant differences by gender in SSOC. Therefore, the first hypothesis was rejected. The second hypothesis stated that there are no statistically significant differences between grades and SSOC. According to Table 6, there were significant differences between grades and student satisfaction with online classes. Therefore, the second hypothesis was rejected. The third hypothesis stated that there is no correlation between feedback and SSOC. Table 8 showed that there was a correlation between feedback and SSOC. Therefore, the third hypothesis was rejected and feedback is positively related to SSOC. This finding is in line with the results by Finaly-Neumann (1994), who argued that instructional satisfaction is influenced by feedback. The fourth hypothesis stated that there is no correlation between interaction and SSOC. According to Table 8, there was a correlation between interaction and SSOC. Therefore, the fourth hypothesis was rejected and interaction is positively related to SSOC. This finding is consistent with the previous studies (Gass & Varonis, 1994) and suggested that students

need the opportunity to interact with teachers to increase SSOC. The fifth hypothesis stated that there is no correlation between motivation and SSOC. Table 8 showed that there was a correlation between motivation and SSOC. Therefore, the fifth hypothesis was rejected and motivation is positively related to SSOC. This supports that motivation is positively correlated with foreign language learning (Dörnyei, 2009) and affects what we learn (Schunk, 1995). Thus, teachers should develop some class activities which can provide students with learning motivation for the success of language learning and enhance SSOC. The sixth hypothesis stated that there is no correlation between technical problems and SSOC. Table 8 showed that there was a correlation between technical problems and SSOC. Therefore, the sixth hypothesis was rejected and the technical problem is negatively related to SSOC.

Students answered that online classes had several strengths: (1) Anytime access; (2) Unlimited access; (3) Individual learning pace; (4) Anyplace Access; (5) No commuting. They also answered that online classes had several weaknesses; (1) High chances of distraction; (2) Lack of feedback; (3) Lack of interaction; (4) Technical problem; (5) Poor contents.

The present results suggest that there are lots of factors to consider to increase student satisfaction with online classes. First of all, online classes should provide immediate feedback to the students in need. If students do not know where to receive help, they might be embarrassed and that will decrease student satisfaction with online classes. Second, to provide technological infrastructure for online learning is necessary to increase student satisfaction with online classes. Since not every student has an individual laptop or desktop for online classes, it is necessary to provide students from low-income families with computers. In addition, internet connection is an essential part to make online classes possible. Third, new program using interactive technology is essential. As parents worried about children missing out on interacting with their peers in classrooms and learning social skills, real-time, interactive online classes can provide real interaction among students. Fourth, making and offering a new training program for teachers who are not familiar at all with the internet or smart education will be necessary. Since teachers' effort and ability to use technology and smart devices are essential factors of making online class successful, it is necessary to educate teachers. Fifth, developing student customized course according to students' interest and academic level is necessary. Since student interest, academic level is various, it is necessary to make various online classes to satisfy students' needs. Sixth, online class should have high authenticity. For instance, learning materials should be designed to provide students with opportunities to learn authentic things.

This study is very important because learning English online is inevitable to stem the spread of COVID-19 and provides ways of increasing students' satisfaction with online classes. In particular, the present research emphasizes the importance of feedback, interaction, and motivation

to make distance learning successful. In the field of English education, those factors are crucial to help language learners acquire English in the EFL (English as a foreign language) situation. In addition, integrating computer network technology such as distance learning (online learning), videoconferencing, and Social Network Service (SNS) into EFL learning for English education is common in online language learning. Therefore, this research plays an important role in providing insights into the factors that influence the success of language learning and student satisfaction with online language learning in the EFL context. However, this study has some limitations. The participants in this study were only middle school students. In future research, it is necessary to investigate the elementary and high school students' satisfaction with online classes.

REFERENCES

- Ally, M. (2008). Foundations of educational theory for online learning. In T. Anderson (Ed.), *The theory and practice of online learning* (2nd ed., pp. 3-31). Athabasca, Alberta: Athabasca University Press.
- Bates, A. W. (2005). *Technology, e-learning and distance education* (2nd ed.). New York: RoutledgeFalmer.
- Belanger, F., & Jordan, D. H. (2000). *Evaluation and implementation of distance learning: Technologies, tools and techniques*. Hershey, PA: Idea Publishing Group.
- Billings, D. M., Ward, J. W., & Penton-Cooper, L. (2001). Distance learning in nursing. *Seminars in Oncology Nursing*, 17(1), 48-54.
- Bonwell, C. C., & Eison, J. A. (1991). *Active learning: Creating excitement in the classroom (ASHEERIC Higher Education Report No. 1)*. Washington, DC: George Washington University.
- Cantoni, V., Cellario, M., & Porta, M. (2004). Perspectives and challenges in e-learning: Towards natural interaction paradigms. *Journal of Visual Languages and Computing*, 15, 333-345.
- Chong, S. M. (1998). Models of asynchronous computer conferencing for collaborative learning in large college classes. In C. J. Bonk & K. S. King (Eds.), *Electronic collaborators: Learner-centered technologies for literacy, apprenticeship, and discourse* (pp. 157-182). Mahwah, NJ: Lawrence Erlbaum.
- Conrad, D. (2006). E-learning and social change: An apparent contradiction. In M. Beaudoin (Ed.), *Perspectives on higher education in the digital age* (pp. 21-33). New York: Nova.
- Crompton, H. (2013). A historical overview of mobile learning: Toward learner-centered education. In Z. L. Berge & L. Y. Muilenburg (Eds.), *Handbook of mobile learning* (pp. 3-14). Florence, KY: Routledge.
- DeBourgh, G. A. (1999). *Technology is the tool, teaching is the task: Student satisfaction in distance learning*. Paper presented at the meeting of the Society

- for Information Technology & Teacher Education International Conference, San Antonio, TX.
- Dörnyei, Z. (2009). The L2 motivation self system. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 9-43). Bristol: Multilingual Matters.
- Engelbrecht, E. (2005). Adapting to changing expectations: Postgraduate students' experience of an e-learning tax program. *Computers and Education*, 45(2), 217-229.
- Finally-Neumann, E. (1994). Course work characteristics and students' satisfaction with instructions. *Journal of Instructional Psychology*, 21(2), 14-19.
- Gass, S. & Varonis, E. M. (1994). Input, interaction and second language acquisition. *Studies in Second Language Acquisition*, 16(3), 283-302.
- Hara, N., & Kling, R. (2000). *Students' distress with a web-based distance education course: An ethnographic study of participants' experiences*. Bloomington, IN: Center for Social Informatics.
- Hiltz, S. R. (1993). Correlates of learning in a virtual classroom. *International Journal of Man-Machine Studies*, 39(1), 71-98.
- Huffaker, D. A., & Calvert, S. L. (2003). The new science of learning: Active learning, metacognition, and transfer of knowledge in e-learning applications. *Journal of Educational Computing Research*, 29(3), 325-334.
- Hwang, G. J., Tsai, C. C., & Yang, S. J. H. (2008). Criteria, strategies and research issues of context-aware ubiquitous learning. *Educational Technology & Society*, 11(2), 81-91.
- Keller, C., & Cernerud, L. (2002). Students' perception of e-learning in university education. *Learning Media and Technology*, 27(1), 55-67.
- Kelly, T., & Bauer, D. (2004). Managing intellectual capital via e-learning at Cisco. In C. Holsapple (Ed.), *Handbook on knowledge management 2: Knowledge directions* (pp. 511-532). Berlin, Germany: Springer.
- Kim, He-Young. (2010). A critical inquiry of the national e-learning for English education from Computer-Assisted Language Learning (CALL) research perspective. *Modern English Education*, 11(3), 79-105.
- LaRose, R., Gregg, J., & Eastin, M. (1998). Audio graphic tele-courses for the web: An experiment. *Journal of Computer-Mediated Communication*, 4(2). Retrieved from <https://onlinelibrary.wiley.com/toc/10836101/1998/4/2>
- Lee, Hyun-Joo. (2011). English-Korean telecollaborative videoconferencing for the development of linguistic and intercultural communicative competence. *Modern English Education*, 12(4), 303-332.
- Lewis, J. M. (2000). Distance education foundation. In J. Novotny (Ed.), *Distance education in nursing* (pp. 4-22). New York: Springer.
- Maki, R. H., Maki, W. S., Patterson, M., & Whittaker, P. D. (2000). Evaluation of a web-based introductory psychology course: I. Learning and satisfaction in online versus lecture course. *Behavior Research Methods, Instruments, & Computers*, 32, 230-239.
- Moore, M. G. (1989). Three types of interaction. *The American Journal of Distance Education*, 3(2), 10-15.
- Moore, M. G., & Kearsley, G. (1996). *Distance education: A systems view*. Belmont, CA: Wadsworth Publishing.
- Muilenburg, L. Y., & Berge, Z. L. (2005). Student barriers to online learning: A factor analytic study. *Distance Education*, 26(1), 29-48.
- Ogata, H., Matsuka, Y., El-Bishouty, M. M., & Yano, Y. (2009). LORAMS: Linking physical objects and videos for capturing and sharing learning experiences towards ubiquitous learning. *International Journal of Mobile Learning and Organisation*, 3(4), 337-350.
- Parker, A. (1999). Interaction in distance education: The critical conversation. *AACE Journal*, 1(12), 13-17.
- Roffe, I. (2002). E-learning: Engagement, enhancement and execution. *Quality Assurance in Education*, 10(1), 40-50.
- Rovai, A. P., Ponton, M., Wighting, M., & Baker, J. (2007). A comparative analysis of student motivation in traditional classroom and e-learning courses. *International Journal on E-Learning*, 6(3), 413-432.
- Schunk, D. H. (1995). Self-efficacy, motivation, and performance. *Journal of Applied Sport Psychology*, 7(2), 112-137.
- Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2008). *Motivation in education* (3rd ed.). Upper Saddle River, NJ: Pearson Merrill Prentice Hall.
- Wickersham, L. E., & McGee, P. (2008). Perceptions of satisfaction and deeper learning in an online course. *Quarterly Review of Distance Education*, 9(1), 73-83.
- Williams, W. M., & Ceci, S. J. (1997). "How'm I doing?" Problems with student ratings of instructors and courses. *Change*, 29(5), 12-23.
- Zhang, D., Zhao, J. L., Zhou, L., & Nunamaker, J. F. Jr., (2004). Can e-learning replace classroom learning? *Communications of the ACM*, 47(5), 75-79.