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A Study of QR Codes and A Recording Function as Tools in A Large English Class

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This study introduces the use of QR (quick reaction) codes and a recording function in a smartphone as tools that can be used to facilitate a learning activity in a large English class in which a movie is used. In those classes that use movies, most of the activities and techniques tend to focus on small classes, which are relatively easy for a teacher to control and handle. In a large English class, both tools are used to carry out a group activity designed to increase the leaners' class participation. The study shows that two kinds of tools have an influence on interaction between learners and that they are ultimately helpful in learning through listening. A task for a group activity is given via a QR code, which leads learners to engage in an active discussion and the free exchange of opinions. A recording function is used to arouse interest in and establish motivation for listening. The result indicates that the two kinds of tools introduced above are effective for promoting interaction between learners. Consequently, QR codes and a recording function are helpful in increasing the listening comprehension ability of students in a large English class.

[QR codes/recording function/smart-phone/movies/a large English class]

I. INTRODUCTION

The need for authentic materials has been ongoing for a long time, with a current emphasis on communicative proficiency. To meet the demands of the times, many education institutions are using movies, sitcoms, soap operas, and various talk shows, which are no longer simply a novelty. One of the more eye-catching materials is "movies." A variety of effective methods and class procedures for using movies have long been available in the education marketplace. Some cooperative studies and task-based learning—as well as some suggestions for teaching four skills with movies—have

been introduced in the world. The researcher considers some valuable learning methods or procedures introduced tend to involve small classes, which are easy for a teacher to control and in which it is easy for students to interact with each other and with the teacher.

It is not easy, however, for a teacher to divide his/her attention among all of the students in a class that has more than 100 students. For students to concentrate on a lesson and for a teacher to provide an effective English lesson, the use of movies is a brilliant idea; therefore, some techniques or tools are needed in order to use movies effectively as teaching material.

This study involves large English classes that use a movie, *Cars 2,* to increase listening comprehension and suggests a class procedure for using the movie. The teacher encourages interaction among students and divides his or her attention among the students individually as much as possible. To do this, this study uses a QR (quick reaction) code and a recording function in the smartphones that most students have these days. The research yields information about how much both tools facilitate student interaction in a listening class that uses a movie and about whether the use of these tools can ultimately be helpful for increasing listening comprehension. In summary, this current study investigates the following two research questions:

1) Are a QR code and a recording function helpful in encouraging interaction between students in a large class?
2) Can a QR code and a recording function be helpful in increasing the listening comprehension ability of students in a large class?

II. LITERATURE REVIEW

This study focuses on some learning activities that use a QR code and a recording function for a large class using a movie. Positive results of some research regarding the use of diverse instruction media and their effectiveness (Arcario, Charman, Haines, Stempleski, & Tomalin, 1990; Duncan, 1989; Jung, 2013; Kim, 2013; Lee, 2000; Lee, 2008) are considerable and still under investigation. Numerous researchers report the effectiveness of using social networking services in second language learning environments (Harasim, Hiltz, Teles, & Turoff, 1997; Kim, Kim, & Choi, 2011; Lee & Kim, 2014; Lim, 2010; Liu, 2010; Rossett, Douglish, & Frazee, 2003; Song, 2012). In this section, a variety of learning techniques using a movie in diverse classrooms and learning environments are considered.

Kim (2010) investigates students' communicative competence in performing text-

based on-line chat in English about topics related to the movie *Shattering the Silence* (1992). She introduces the movie as prior learning material and then observes various features of CMC (computer-mediated communication) with reference to grammatical competence, pragmatic competence, and sociolinguistic competence. Her class procedure is as follows:

1. Introducing the story of a movie
2. Watching the movie
3. Reading the script and understanding the content
4. Learning vocabulary and prefabricated expressions
5. Giving a task/Performing it with CMC
6. Evaluating the class through a questionnaire

Her study's conclusion indicates an overall positive response to computer chatting about topics related to a movie. She also reports an effective response regarding the combination of a movie and computer chatting as a learning tool, which turns out to be very positive in learning English.

Kent and Jones (2012) examined the efficacy of utilizing film in promoting language production in L2 Korean learners and introduced mobile technology paired with QR codes using smartphones. This study also utilizes QR codes through smartphones, which most students have these days. They emphasize the advantage of using a cellular phone. Using QR codes with smartphones, the survey procedure for the movie review project is as follows:

1. Composing a review of the film and producing posters
2. Videotaping the reviews using mobile technology
3. Uploading the posters to YouTube
4. Completing a further linguistic assignment using QR codes embedded in the movie poster

Their survey concludes that the use of movies for learning English has a good influence on students' motivation and that use of QR codes on smartphones has a positive impact for educational purposes. Their study also "revealed how well the use of movies as a teaching tool dovetails with the use of mobile technology in the L2 environment. Mobile technology can be used to deliver video content straight to each of the learners' phones" (p. 125). Mobile technology attracts new generations of learners by allowing more teaching and learning methods and materials for mobile-assisted language learning (Pachler, Bachmair & Cook, 2010). Kim & Chung(2006) also emphasize the

availability of content via cellular phones and assert that it can be learner-centered and allows for constant links to resources and access to applications. Ferdig(2007) says the advantage of mobile devices as connection to established electronic spaces for communicating with others. Many kinds of handheld mobile devices, such as smartphones, pads, and PDAs (personal digital assistants), have the advantage of easy accessibility, immediate interactivity, and further possibilities for instructional activities; therefore, they are an efficient way of reaching class objectives (Ogata & Yano, 2005).

In addition, this study utilizes two tools, QR code and a recording function, on smartphones for a given group activity task[1]. Some surveys of M-learning that include mobile phones in a learning environment have been put forward (Fetaji, 2008; Kolb, 2011; Rivers, 2009; Trifonova & Ronchetti, 2003).

QR codes—which can open up a text file, media file, or webpage—are ubiquitous these days in books, newspapers, magazines, billboards, etc. Smartphones can scan and decode them anytime and anywhere, so that users can send an SMS or even produce easily online at sites such as QRStuff.com. According to Kent and Jones (2012), "[t]he largest benefit arising from QR code use for educational purposes is in the transmission of a large amount of information to learners in a standard manner that ensures they all receive the same material" (p. 109). QR codes in education have been seen to "increase the impact of mobile devices, to enhance flexibility of provision and also to advance the personalization of learning" (Leone & Leo, 2011, p. 338). Al-Khalifa (2011) notes that QR codes can be used to leverage student interaction in the classroom because "QR codes can be attached to handouts to provide optional answer keys, scaffolded guidance, or extension exercises, thus giving students greater autonomy" (Pegrum, 2014, p. 79).

Dale (2007) notes that tools available via smartphones can be useful in or out of the classroom to aid learning and suggests the use of a voice recording function (referred to as a "recording function" in this study). Learners can use the recording function of a mobile phone to record themselves chanting verbs, practicing vocabulary and dialogues, singing a song, or making presentations. They can then send the recorded files to a teacher's computer to be assessed and uploaded to a website for exchange among learners. The use of QR codes and a recording function with a smartphone is in tune with the times.

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[1] A group activity is typically used to enhance interaction, which is very helpful for solving the problem of a large class that does not otherwise give students enough of an opportunity to speak (Long & Porter, 1985).

III. RESEARCH DESIGN

1. Participants and Material

The participants in this study were Korean students who enrolled in a General English class at OO University in Seoul during the first semester of 2014. Two classes were observed—Class A (100 students) and Class B (130 students). These were large classes, conducted for two hours a week, in which the participants had various majors and ranged from freshman to seniors. Without a specific pre-test in the beginning of the semester, the researchers observed, for one semester, the developmental progress of the students in terms of listening ability and the degree of class participation through interactions between students.

The text used was from a movie, *Cars 2* (2011), which is a computer-animated action comedy and is the sequel to the 2006 film *Cars* (2006). The film was produced by *Pixar* and released by *Walt Disney Pictures* in 2011. The main character, a race car named Lighting McQueen, and his best friend Mater head to London, Tokyo, and Italy to compete in the World Grand Prix. McQueen becomes entangled in a conspiracy, and his friend Mater tries to save him at the risk of his own life. In the middle of this journey, cinema audiences as well as McQueen consider the true meaning of friendship. The expressions used are very diverse for animation, and everyday conversation occurs frequently because it involves the issue of friendship. Also, the amount of lines is not long, which makes listening and understanding of the context not difficult.

The text consists of a total of ten lessons, but this two-hour class is limited by time to one lesson. The researcher selects a short scene (3 to 4 minutes), which includes important or interesting content, from the whole story and produces a movie file and audio file that Media Play can open. Teaching material is provided to the students in PowerPoint format, and it is uploaded to the virtual campus on the homepage of OO University.

The lecture room has a computer with Internet access, a beam projector, one screen in front of the class, and two small TVs hanging from the ceiling in the middle of the class. The teacher uses a computer and beam projector to enable all students to see a screen, which enables them to concentrate on the lesson and to share some results of the group activities. The presentation of QR codes and their addresses is through PowerPoint, and the answers to QR code questions and recording files are presented through the Google drive on the Internet. Pre-test and post-test for quantitative research, a questionnaire for qualitative research are used to show the effectiveness of two kinds of tools in a large class using the movie.

2. Class Procedure

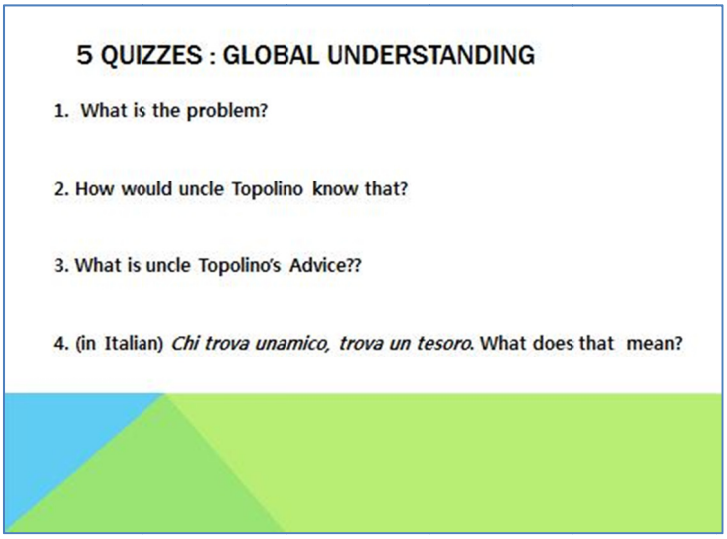
This study suggests a class procedure that uses QR codes and a recording function in a large class using the movie *Cars 2,* considers how useful the procedure is for interactions between students, and also considers how helpful it is in the long run for improving students' listening comprehension. At this stage, it is necessary to suggest a class procedure in which the two kinds of tools, QR codes and a recording function, are used.

1) Pre-listening Stage: Watching the Movie and Answering 4 Quizzes

The teacher first has students watch a selected scene with subtitles that are in Korean, English, or both. The purpose of this stage is to get students to watch and understand the flow of the story; therefore, including Korean subtitles is necessary for understanding specific scenes. After students have watched the scene, four or five relatively easy quizzes are presented using PowerPoint, and students can individually answer the questions either in English or in Korean. Figure 1 presents an example of four quizzes on Chapter 6 in which a main character, McQueen, has a small quarrel with his best friend and tries to make up quickly.

FIGURE 1

Pre-listening Stage: Four Quizzes for a Global Understanding of a Story



2) Actual Listening Stage (1): QR codes

After watching a specific scene and understanding the flow of the story through simple quizzes, a teacher presents some listening comprehension questions in detail related to the content or to a specific situation. The types of comprehension questions vary—and include true-or-false questions; matching items; fill-in-the-blank questions; skimming for specific information, such as time, place, a special event, or intention of characters—and are related to the content or to a situation in a selected scene. The teacher presents a QR code, which includes a variety of comprehension questions or problem-solving tasks and encourages students to exchange their opinions in a group-work setting. Using this process, students have an opportunity to interact with peers or with the teacher in order to suggest more appropriate answers. Figure 2 is an example of a QR code and its address from Chapter 5, in which Finn, a secret agent, suggests becoming a spy to Mater, McQueen's best friend, to uncover a plot to hurt race cars that are competing in the World Grand Prix.

FIGURE 2

Actual Listening Stage (1): Presenting a QR code

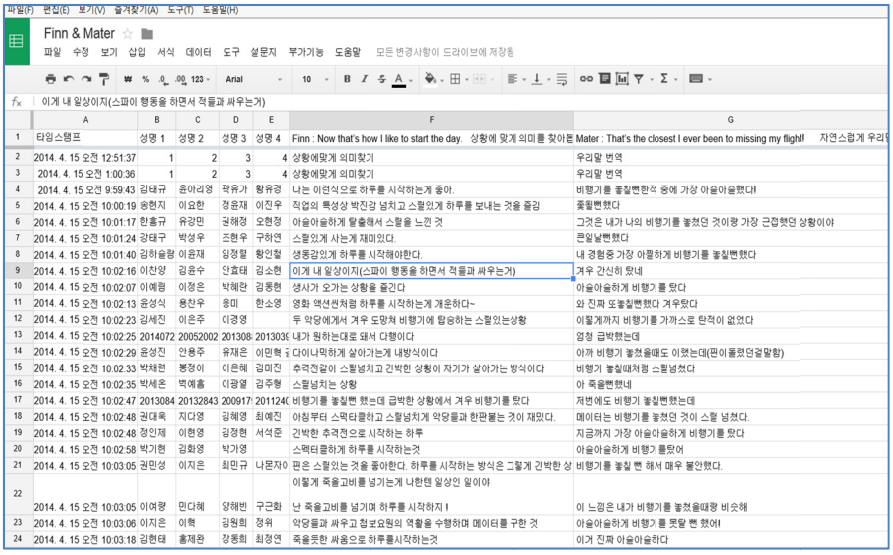


Each group tries to have an active discussion and natural conversation among group members in order to gather many opinions within a limited time. After allowing some time, the teacher opens a Google Drive on a computer in front of the class, and then

students can see the answers from other groups and share them openly. Figure 3 shows the different answers to two questions presented through the QR code in Figure 2, above. After this activity, students can check their answers with those in the textbook, and the teacher asks them to recognize some expressions in the textbook or adds some explanation or translation. Watching the first scene again—without subtitles this time—students can understand the content of that scene in detail and can also concentrate on learned expressions.

FIGURE 3

Actual Listening Stage (1): Sharing the Answers of the QR code as a Group Activity



Finn & Mater

이게 내 일상이지(스파이 행동을 하면서 적들과 싸우는거)

	A	B	C	D	E	F	G
1	타임스탬프	성명 1	성명 2	성명 3	성명 4	Finn : Now that's how I like to start the day. 상황에 맞게 의미를 찾아봄	Mater : That's the closest I ever been to missing my flight! 자연스럽게 우리
2	2014. 4. 15 오전 12:51:37	1	2	3	4	상황에맞게 의미찾기	우리말 번역
3	2014. 4. 15 오전 1:00:36	1	2	3	4	상황에맞게 의미찾기	우리말 번역
4	2014. 4. 15 오전 9:59:43	김태규	존아리영	작유가	황유경	나는 이런식으로 하루를 시작하는게 좋아.	비행기를 놓칠뻔한적 중에 가장 아슬아슬했다!
5	2014. 4. 15 오전 10:00:19	송현지	이요한	정윤재	이진우	직업의 특성상 박진감 넘치고 스릴있게 하루를 보내는 것을 즐김	놓칠뻔했다
6	2014. 4. 15 오전 10:01:17	한홍규	유강민	권해정	오현정	아슬아슬하게 탈출해서 스릴을 느낀 것	그것은 내가 나의 비행기를 놓쳤던 것이랑 가장 근접했던 상황이야
7	2014. 4. 15 오전 10:01:24	강태구	박성우	조현우	구하연	스릴있게 사는게 재미있다.	큰일날뻔했다
8	2014. 4. 15 오전 10:01:40	강하슬랑	이윤재	임정철	황인철	생동감있게 하루를 시작해야한다.	내 경험중 가장 아찔하게 비행기를 놓칠뻔했다
9	2014. 4. 15 오전 10:02:16	이산양	김윤수	안효태	김소현	이게 내 일상이지(스파이 행동을 하면서 적들과 싸우는거)	겨우 간신히 탔네
10	2014. 4. 15 오전 10:02:07	이예림	이정은	박혜란	김종현	생사가 오가는 상황을 즐긴다	아슬아슬하게 비행기를 탔다
11	2014. 4. 15 오전 10:02:13	윤성식	용찬우	용미	한소영	영화 액션씬처럼 하루를 시작하는게 개운하다~	와 진짜 또놓칠뻔했다 겨우탔다
12	2014. 4. 15 오전 10:02:23	김세진	이은주	이경영		두 악당에게서 겨우 도망쳐 비행기에 탑승하는 스릴있는상황	이렇게까지 비행기를 가까스로 탄적이 없었다
13	2014. 4. 15 오전 10:02:25	2014072	20052002	201308	201303(	내가 원하는대로 돼서 다행이다	엄청 급박했는데
14	2014. 4. 15 오전 10:02:29	윤성진	안용주	유재은	이민혁	다이나믹하게 살아가는게 내방식이다	아까 비행기 놓쳤을때도 이랬는데(판이롭했던걸말함)
15	2014. 4. 15 오전 10:02:33	박채린	봉정이	이은혜	김미진	추격전같이 스릴넘치고 긴박한 상황이 자기가 살아가는 방식이다	비행기 놓칠때처럼 스릴넘쳤다
16	2014. 4. 15 오전 10:02:35	박세온	백예홈	이광열	김주형	스릴넘치는 상황	아 죽을뻔했네
17	2014. 4. 15 오전 10:02:47	2013084	20132843	200917	201124(	비행기를 놓칠뻔 했는데 급박한 상황에서 겨우 비행기를 탔다	저번에도 비행기 놓칠뻔했는데
18	2014. 4. 15 오전 10:02:48	권대욱	지다영	김혜영	최예진	아침부터 스릴타클하고 스릴넘치게 악당들과 한판붙는 것이 재밌다.	메이터는 비행기를 놓쳤던 것이 스릴 넘쳤다.
19	2014. 4. 15 오전 10:02:48	정인재	이현영	김정현	서석준	긴박한 추격전으로 시작하는 하루	지금까지 가장 아슬아슬하게 비행기를 탔다
20	2014. 4. 15 오전 10:02:58	박기현	김화영	박가영		스펙터클하게 하루를 시작하는것	아슬아슬하게 비행기 콜았어
21	2014. 4. 15 오전 10:03:05	권민성	이지은	최민규	나온자(	편은 스릴있는 것을 좋아한다. 하루를 시작하는 방식은 그렇게 긴박한 상	비행기를 놓칠 뻔 해서 매우 불안했다.
22	2014. 4. 15 오전 10:03:05	이여랑	민다혜	양해빈	구근화	이렇게 죽을고비를 넘기는게 나한텐 일상인 일이야 난 죽을고비를 넘기며 하루를 시작하지 !	이 느낌은 내가 비행기를 놓쳤을때랑 비슷해
23	2014. 4. 15 오전 10:03:06	이지은	이혁	김원희	정위	악당들과 싸우고 첩보요원의 역할을 수행하며 메이터를 구한 것	아슬아슬하게 비행기를 못탈 뻔 했어!
24	2014. 4. 15 오전 10:03:18	김현태	홍제환	강동희	최정연	죽을듯한 싸움으로 하루를시작하는것	이거 진짜 아슬아슬하다

3) Actual Listening Stage (2): Recording Function

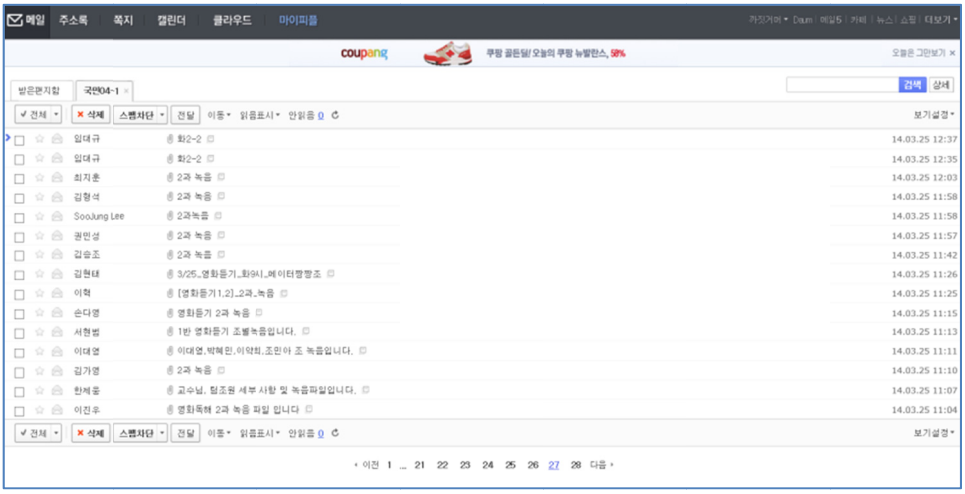
The next part of the activity is the actual listening stage. The teacher has students watch a second selected scene with Korean or English (or both) subtitles. Based on their understanding of both the specific scene and the flow of the story, the teacher asks the students to recognize the personality of a special character or the intended meaning of designated characters that are in main or supporting roles. After understanding the characteristics of some of the characters, the students are asked to produce a recorded file. To do so, they are asked to use the recording function on their smartphone, which most students have these days. They have to try to imitate the character's accent or tone and illustrate their personality. For this group activity, one member performs character A,

another member performs character B, and so on. The more characters there are, the greater the number of group members who participate. For example, if three characters are in a scene, then three members carry out the imitating task together. Students are given time to practice with the other members of their group, during which they work at expressing the characteristics of some characters to the fullest. The students have time to record their own voice. In the process of this recording activity, they can immerse themselves in the content of a second scene in order to better understand their characters, which is helpful for memorizing some expressions used by the characters that they are imitating.

The teacher asks the students to send the recorded file to his or her personal e-mail and then checks those e-mailed files openly so that all of the students are able to see their recorded files. As the teacher opens each file, students can hear their own recorded voices. If the teacher is reluctant to open his or her personal e-mail in front of the students, he or she can use a different e-mail site on a virtual campus on the homepage of the university. As students listen to their interesting and funny recorded files, they can use the textbook to recheck the content or some of the expressions. After this kind of activity, the teacher has the students watch a second selected scene without any subtitles, encouraging them to understand the flow of the story and to listen to certain important expressions related to the core content. Figure 4 is an example of recorded files received through a researcher's personal e-mail.

FIGURE 4

Actual Listening Stage (2): Recording Files of Group Activity



4) Post-listening Stage: Reviewing

At the end of the class, the teacher needs to arrange the whole story of that day's selected scene and certain expressions related to it. Students watch the first and second scenes in a continuous stream without subtitles. Through a pop quiz or selected questions, they review the story of the movie and remember some expressions related to a specific scene. In addition to reviewing the story, the teacher asks the students to write their opinions about the class activities or to provide suggestions for improvement. The teacher can gather this information—through paper and pencil or through a convenient QR code—in order to improve the next lecture. To sum up the class procedure, including the two kinds of activities—using QR codes and a recording function—used with the movie, the procedure is as follows:

1) Watching the first selected scene with subtitles
2) Answering questions about the story of the scene and checking the content through four or five quizzes
3) Presenting some listening comprehension questions related to the content or the situation
4) Showing a QR code and its address for the group activity and encouraging interaction among students
5) Sharing the answers of each group through a Google Drive on the Internet
6) Watching the second selected scene with subtitles
7) Recognizing the personality or intended meaning of a character
8) Recording the students' voice by using the recording function of a smartphone, imitating a character's accent or intonation
9) Getting students to send a recorded file to the teacher's e-mail
10) Checking and understanding the flow of the story with the textbook
11) Watching that day's scene in a continuous stream without subtitles
12) Reviewing the story of the movie and memorizing some expressions related to the story

IV. DATA COLLECTION AND ANALYSIS

1. Influence of the QR code and the recording function on interaction

To determine whether the two tools promote a thriving atmosphere of discussion and active exchange of opinion, a questionnaire for qualitative research is used. Students are

provided with an open-ended question, not a formal questionnaire to correct and accept various opinions about the learning activity. The teacher asks the students to give all their opinions and comments about everything related to the class. Specifically, students are asked to describe whether they are satisfied with the use of QR code scanning and with making a recorded file and whether they feel comfortable with interaction through the use of the two tools. They are also asked to give a reason why they are or are not satisfied about something. The teacher explains that they should not write simple or short comments, such as "it was good (or bad)" or "I was satisfied (or not) with that," but rather that they should describe in detail what they are satisfied (or not) with, in what ways they are satisfied (or not), and the reasons for those opinions.

Students presented a variety of answers to the open-ended questions. From among these, this study selects and arranges some answers related to the purpose of this study. The answers below are positive and negative ones, combining the answers from both Class A and Class B.

<Positive opinions>
- This was the first time I used QR code scanning, and it is amazing.
- It was very funny to work with my group members on a task given in QR code.
- The activity of QR code scanning is surely helpful for interaction with my members.
- The discussion time is very good… and sharing different opinions with other groups is wonderful.
- In other kinds of English classes, we have to memorize some expressions without understanding the context. It was very hard for a beginner like me. During the discussion to solve the problem in QR code, I can memorize expressions naturally and automatically.
- It is a strange experience to listen to my own recorded voice.
- After recording with care, listening to my recorded material again helps my listening ability.
- I was very satisfied with this activity. The recording activity is very exciting.
- Our group members soon become friendly during the discussion process and exchanged opinions to solve the problem given in the QR code.
- Talking and practicing and then recording and scanning - these are all very exciting tasks to perform in one semester.
- I cannot be drowsy because I have a lot of work to do as group work.
- I really appreciate you letting us experience an active lesson involving activities.

<Negative opinions>
- Recording is good but it is sort of difficult to act like a character, imitating a similar accent.

- Sometimes we have an awkward silence during a group activity because group members are not very intimate with each other over the course of one semester.
- QR code scanning sometimes doesn't work. My smartphone cannot read it very frequently.
- I want you to enlarge the PowerPoint on the screen. The letters on PowerPoint are too small to follow instructions from the back seat of a class.
- My phone sometimes fails to scan the QR code. Enlarge the address of the QR code, please.
- There can be any amount of lines for recording! You need to shorten the lines for funny recordings.
- I am a Chinese student. I don't have a smartphone. It is not easy to participate in some activities of this class.
- It is so embarrassing to openly share my own voice on the recorded file.
- I am a group leader. I guess a group leader seems to have a lot of responsibility.
- I guess the time for the recording activity is very short. We need more time to complete a recording.
- I am so tired with the many QR code scanning and recording activities.
- The progress of class activity is too fast to catch up with and understand the content of the lecture.

From the positive opinions, the researchers can infer that the satisfaction with a group activity is improved when the process involves certain activities with group members. Just a discussion might be boring, but in this class, it can be exciting and interesting with an exchange of opinion when completing a task given via QR code. The third answer from the positive opinions, "The activity of QR code scanning is surely helpful for interaction with my members," corresponds with the purpose of this study, which concentrates on interaction between students.

In general, QR codes and a recording function contribute to the conclusion that a group activity is good or funny, and, consequently, that a class is considered to be active. This study leads one to infer that the use of both QR codes and a recording function in a group activity is effective and satisfactory for students.

The next consideration is the negative opinions, which are focused on problems of class progress, size, amount, limited time, and lecture speed. Specifically, dissatisfaction about the two tools clearly does not appear in the responses. The purpose of this study is to research the effectiveness of those two tools, and, therefore, the research doesn't need to deal with the stated negative opinions.

In summary, a result of open-ended research is that many students are satisfied with group work and, further, that QR codes and a recording activity have a positive impact

on the exchange of opinions and formation of relationships through interaction. This result is very important because these positive responses are directly connected to listening comprehension ability.

2. Influence of QR code and a recording function on listening comprehension ability

This study involved a listening class that used QR codes and a recording function in a large class with more than 100 learners for one semester. The mid-term test and final test—called the pre-test and post-test, respectively—are the instruments through which the research tries to prove the effectiveness of two kinds of tools used with a movie, especially in a large class. In the study, how listening ability improved as the class progressed was observed. To perform this observation in detail, a dependent t-test of the SPSS statistic program is used.

TABLE 1

Class A (100): The Result of Pre-test and Post-test

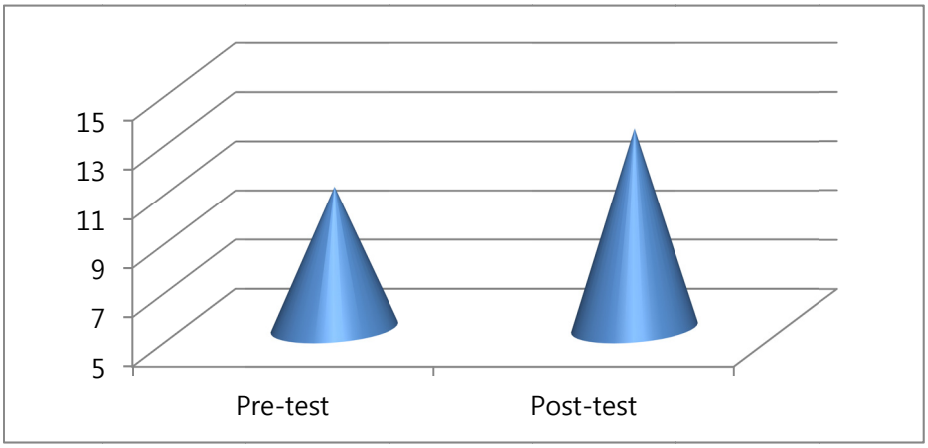
	Mean	Post-Pre	Correlation	t	Sig. (2-tailed)
Pre	12.8131	1.76263	.630	6.594	.000
Post	14.5758				

*p<.05

Table 1, above, shows the descriptive statistics of listening ability of Korean learners in a large class. The result of Class A, which utilized two tools for a listening activity, is that the post-test mean (M=14.5758) is higher than the pre-test mean (M=12.8131), and this grade gap (1.76263) is consequently statistically significant (p<.05). With this result, this study leads one to infer that use of QR codes and a recording function is an effective way to develop listening ability. To see explicitly the effectiveness of the two tools, see the graph in Figure 5.

FIGURE 5

Class A (100): Grade Gap between Pre-test and Post-test



From the beginning of the semester, 100 learners were guided to concentrate on listening material with an active use of QR codes and a recording function. From Figure 5, it is possible, as time goes by, to infer that these two kinds of tools can be helpful for maintaining an interest in and motivation for listening activity and ultimately for the development of listening ability. Next, Table 2 shows the results of the pre-test and the post-test of Class B (130 students).

TABLE 2

Class B (130): The Result of Pre-test and Post-test

	Mean	Post-Pre	Correlation	t	Sig. (2-tailed)
Pre	10.7442	2.37209	.746	8.184	.000
Post	13.1163				

*p<.05

Class B (130) shows the same conclusion as Class A (100). In Table 2, the post-test mean (M=13.1163) is a lot higher than the pre-test mean (M=10.7442), and their grade gap (2.37209) turns out to be statistically significant (p<.05). With this same result, the research asserts that using QR codes and a recording function is very effective in listening learning, especially in a large class. Figure 6, below, shows that research confirms their effectiveness.

FIGURE 6

Class B (130): Grade Gap between Pre-test and Post-test

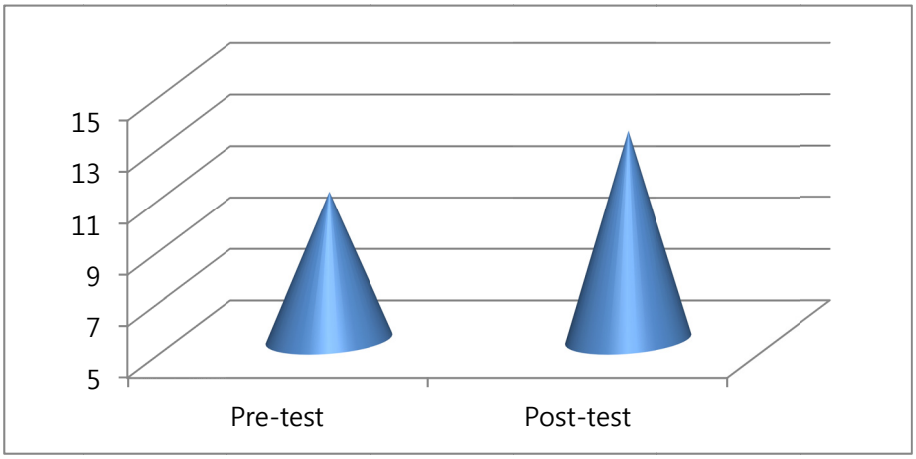


Figure 6 indicates that the use of QR codes and a recording function has a very positive effect in the learning environment. This study confirms that these tools can be applied to any classes using a movie, regardless of the size of the class.

V. CONCLUSION

This study suggests that the use of QR codes and a recording function is an effective tool in a large class using a movie. In a large class, a teacher cannot distribute equal opportunity and care to every student, a challenge that can be solved by a group activity with a QR code task. Observation data of two classes—Class A (100 students) and Class B (130 students)—in general education classes of OO University in Seoul were used in this study. Both classes were taken by freshmen to seniors with various majors, and the classes continue for 16 weeks. The class lesson was divided into three stages: pre-listening, actual listening, and post-listening. From among these stages, the activities involving scanning QR codes and making recorded files were performed in the actual-listening stage.

A listening task was given through QR codes, and students exchanged their opinions in order to solve the problem while working as a group. The teacher played the role of facilitator to encourage students in an active discussion. After this activity, the teacher induced students to make a voluntary presentation and to share the solutions of each

group with the class as a whole. The next activity was making a recorded file to understand characters in a specific situation, in which students tried to imitate the accent or intonation of their characters and to consider their emotional states. After recording the students' own voices on a smartphone, each group sent an e-mail to the teacher, who opened the recorded files and encouraged students to listen to their own voices. With this activity, it was easy for students to understand the intention or message that the characters want to deliver, which was ultimately helpful for understanding the content of the story.

This study focused on the influence of QR codes and a recording function on the interaction and listening ability of students. Open-ended questions were provided to students in order to discern the relationship between use of the two tools and the interaction between students in a large class. The result shows a positive response regarding the two tools when it comes to promoting interaction or discussion in group work. When learners read or listen to an authentic language material, language store can be enhanced through interaction between them, which can make learners use everything they have learned or acquired in English class (Rivers, 1987). This study considers the adequacy of the use of QR code to encourage interaction between learners.

To observe the influence of the two tools on listening ability, a comparison between pre-test scores and post-test scores was performed. That comparison shows that the post-test result is higher than the pre-test result for both Class A and Class B and that the results are statistically significant.

In summary, this study shows that QR codes and a recording function can be effective tools for learning activity, and can be further helpful for improving listening ability. Most students have a personal smartphone these days. The use of a built-in QR code and the recording function in smartphones can promote interest and motivate students to participate actively in class. It is possible that the two tools introduced in this study can be used not only in listening class but also in any kind of classes, including those involving writing and reading skills. The further research will compare and contrast a control group and an experimental group on using QR code and recording function, which will show more detailed effectiveness of two tools in the classroom. The next research project will study how these tools are applied to a class with other objectives.

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Examples in: English
Applicable Languages: English
Applicable Levels: Tertiary

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