Authentic Information as Topics for Social Awareness and Language Learning: Integrating Online Multimedia into College-level EFL Courses in Japan

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Abstract

This study examined the effectiveness and the potential for integrating media sources in courses for English as a foreign language taught at the college level in Japan. In all, 79 students in the School of Economics at a Japanese university in the Kansai region participated in this study using an innovative teaching method of selected media sources and activities designed for this study. Three social issues were selected based on the general economic curriculum of the university of the researcher's affiliation. A questionnaire survey designed specifically for the purpose of this study was administered at the end of a semester, and the data collected were calculated using SPSS version 17 software. The results of this study indicated that students regard this teaching method as effective and that they gained more knowledge; however, because of the cultural background and certain limitations, it is suggested that this study be conducted for a longer duration.

Keywords*:* communicative skills, English-language learning, globalization, multimedia sources

Introduction

The purposes of studying English in Japan, like many other non-English-speaking countries in recent years, transformed from simply a liberal arts fulfillment to fostering manpower for international trade, humanitarian development, and cultural exchange. In addition, English is used as a communication tool among many countries worldwide, coupled with the recent advancements in technology catalyzing globalization and the need for communication in both private and public sectors. Acknowledging the need to be able to speak English internationally, the Japanese Ministry of Education has called for proposals for acquiring English language skills to emphasize communication among all streams of education (MEXT, 2011).

For the reasons noted above, English-language education in Japan has shifted from years spent studying grammar and a translation-based curriculum to overall or combination skills in English with a greater focus on communication today. As a result, communication classes conducted by native English language teachers have become part of most Japanese universities compulsory core English programs. The contents of courses taught by native English-language teachers have also evolved from basic conversation to discussion, debate, and presentation in order to meet today's fast-growing interconnections between countries.

The teaching of English as a foreign language, as a compulsory language subject, is a continuation of the junior and senior high school English-language curriculum in Japan and is

taught in most Japanese universities in all major courses of study. In order to meet the learning objectives of English-language study based on the suggested main objectives set by Japan's Ministry of Education to meet the communicative requirements related to the twenty-first century globalized society, various programs of study have been developed by universities' language professionals. Such communicative skills require understanding topics beyond simple greetings and model-based language dialogues. Traditionally, university courses in English as a foreign language in Japan have utilized English-language learning textbooks published by well-known and reputable publishers for universities. The ESL or EFL textbooks are written for various purposes with the aim of training and learning different skills. However, studies have shown these textbooks lack pragmatic information and authentic examples (Vellenga, 2004). Furthermore, the textbooks' contents and other learning materials used in the classroom often lack connections to the real world, and most learning tasks are limited to the classroom (Barab, Squire, and Dueber, 2000). In addition, many of the topics included in EFL and ESL textbooks are superficial and lack the kind of language training required to converse beyond the classroom environment (Siegel, 2014). Yet such topics are crucial for use in effective language classes for their potential to enhance language learning by enlarging students' vocabulary, enhancing discussion capabilities, and developing higher-level self-expression skills. Furthermore, looking beyond the classroom (Warschauer, 2004) to bring topics that are current and allow emergent learners to critically analyze situations in each topic base on their integral experiences and to foster learners' social awareness is critical.

With the rapid growth and development of the Internet, audiovisual materials, and technology in higher education, using media sources to enhance English-language learning in college courses has become prevalent. One reason for this is that information retrieved from such sources is often current and authentic. Another reason involves opportunities to expose learners to the target language through many methods of input that enhance learning.

The purpose of this study is to examine students' self-perceived awareness, attitudes, and language abilities following a semester of English-language coursework that includes media exposure using materials that relate to selected social issues and authentic information from multimedia sources. The researcher selected and designed activities including three specific social issues: poverty, women in the workplace, and employment as topics and tasks to connect students with universal real-world situations for a language course. The materials and teaching methods for this study comprise a pilot study for the English-language curriculum of the School of Economics at the university in the Kansai region of Japan at which the researcher is currently affiliated.

Review of Literature

Effects of Auditory and Visual Media on Learning

Media sources integrated in language-learning classrooms can enhance instruction and, thereby, learning since the delivery form incorporates visual and audio contexts that offer greater stimulation than traditional foreign-language textbook materials. Mayer's cognitive theory of multimedia learning is based on three main assumptions: the dual-channel assumption, the active-processing assumption, and the limited-capacity assumption (Mayer & Moreno, 2003). Mayer and Moreno (2003) defined multimedia learning as learning based on words in written (e.g., in print or on a screen) or spoken (e.g., narration) language as well as

graphic representations such as illustrations, photographs, maps, and pictures (visual). According to Mayer and Moreno (2003), humans process information via two channels: the auditory/verbal channel and the visual/pictorial channel. The dual-channel assumption implies that learning with visual stimulation is more effective than learning that depends on written text only (Mayer, 2009). The active-processing assumption implies that learners process all sensory input and use their prior knowledge to construct integral information in their memory. Mayer's third assumption, the limited-capacity assumption, implies that learners have a limited span for absorbing and processing information presented in written and pictorial input simultaneously (Mayer, 2009).

Based on Mayer's theory, many researchers have conducted studies using video or media clips as audio and visual input in classrooms to assess learning efficacy in different fields. Various disciplines have tested Mayer's theory using eye-tracking technology to track and record learners' visual behaviors when they are viewing information provided through multimedia. The results of a study conducted in culinary science and using regression analysis indicated a positive correlation with learners' study outcomes, learning retention, and eye movements (Wang, Tsai, & Tsai, 2016). In this study, learners paid more attention to the video information than to text-only information, which also supported Mayer's multimedia learning theory (Wang, Tsai, & Tsai, 2016). Another study using multimedia materials for the teaching of mathematics demonstrated that this method is beneficial when taking into account the design and selection of the multimedia materials (Chiu & Churchill, 2016).

Mayer's theory has also been applied to many studies related to courses teaching English as a foreign language using authentic materials provided through multimedia methods. Numerous studies of language teaching have shown that learning that involves multimedia elements with dual-channel input, such as using videos in class, are more effective (Lidstrom, 1994; Zahn, Hesse, & Rosen, 2010). Another study demonstrated that learning that includes multimedia with audio-visual input increases learner's productivity (75%) compared to that of students who are presented with text-only (25%) and/or audio-only instruction (40%) (Lindstrom, 1994). An explanation for this could be that using media clips to provide authentic information in courses teaching English as a foreign language taught abroad may be especially beneficial to learners due to their lack of exposure to a native-English-speaking environment (Talavan, 2007). Using video as a medium, learners of English can rely on visual clues to support and scaffold their understanding (Lee & Liang, 2012). One example of using visual clues to support learning is the significant effect on learning after students' multimedia video exposure in a study indicated that English-language learners rely on the clues from visual, audio, and subtitles to identify the correct meaning of new expressions in the context (Furmuselu, Maeyer, Donche, & Colon Plana, 2016).

Multimedia in the Classroom

Videos on various topics and information uploaded to the Internet offer a wide range of resources for teachers to select from for their specific instructional purposes. These videos provide current and authentic language sources that motivate learners, as they seldom have opportunities to interact with native-English speakers (Shen, 2015). By viewing such media, learners can access the content on an emotional as well as on a cognitive level (Kuimova, Uzumboylu, & Golousenko, 2016). Many studies have shown that video contents viewed in

class are effective for learners to comment on and share discussion (DeWitt et al., 2013). In addition, the contents encourage learners to consider ideas from different perspectives, raise cross-cultural awareness, and enlarge their knowledge of current events and topics as well as the target language (Kuimova, Uzumboylu, & Golousenko, 2016). Additional pedagogical benefits of using online multimedia video clips are increased student interest in the topic presented and the presentation of visual images that are essential for conceptual understanding, which in turn enhance learners' cognitive processes (Miller, 2009).

Media sources are often incorporated in various disciplines in classroom teaching. In a qualitative study of social science classes, students reported this method to be effective for supporting their learning (Tan & Pearce, 2011). Studies conducted in mathematics classes where videos were used to demonstrate the construction of 3-dimensional graphs also indicated that this method results in clearer understanding and enhanced learning (Chiu & Churchill, 2016). The effectiveness of integrating media sources can also be supported by quantitative results of social studies students' critical thinking based on their academic performance as measured by test scores. A study by Hew and Cheung (2014) revealed a significant difference in scores before and after the instructional intervention of integrating media sources. Students' abilities to critically evaluate controversial issues related to the topics introduced in the study were shown to be higher, as measured by their test scores, after viewing videos was incorporated in instruction (Hew & Cheung, 2014). Two groups of learners in English as a foreign language class in Taiwan were compared, with a control group taught with a traditional teaching method and another group taught using combined audio and visual intervention. The results indicated a statistically significant difference between the two groups in their vocabulary test scores (Lin & Wu, 2016). The group that was taught using audio and visual materials from media sources scored higher and reported this method to be more entertaining and engaging (Lin & Wu, 2016). Today more than ever, as technology continues to become an increasingly significant part of our daily lives in personal, academic, and professional contexts, the impact of using multimedia sources in all academic disciplines should continue to be explored and this method improved and integrated for successful learning.

The effects of auditory and visual input on learning have been studied in various academic disciplines for decades. Previous studies have showed that there is a positive correlation between presenting information through visual and audio sources and learners' study outcomes (Wang, Tsai, & Tsai, 2016). In addition, many studies have found that using visual and audio input in classrooms to be effective and to support learning (Chiu & Churchill, 2016). (Talavan, 2007; Lee & Liang, 2012; Furmuselu, Maeyer, Donche, & Colon Plana, 2016). A majority of the studies have used test scores to show the effectiveness of integrating media sources in classroom learning. Studies using tests as a measurement before and after incorporating media sources showed a significant difference in learners' scores (Hew & Cheung, 2014; Lin & Wu, 2016). While many previous studies used test scores to measure the effectiveness of incorporating media sources in classroom learning, this research project focuses on learners' experiences, perceptions of the learning method and their improvement in language skills, as well as their interest in the topics presented. The research will add to the current literature regarding the importance and effectiveness of auditory and visual media sources on language learning.

Research Questions

The following research questions will be addressed in this study:
(1) To what extent did the information from Internet media sources help with students' comprehension?
(2) To what extent did topics presented via media sources change students' interests in social issues?
(3) To what extent did students perceive their English-language skills to have improved as a result of information input from Internet media sources?
(4) To what extent did students perceive Internet sources as classroom materials to be effective for learning?
(5) What is the relationship between perception of learning through media exposure and increased interest in the social issues introduced in class?
(6) What is the relationship between students' perceived effectiveness of this learning method and their actual English-language ability?

Methodology

Design of the study

The aim of this study was to examine students' self-perceived awareness, attitudes, and language abilities using media sources as classroom materials and the results are to be considered for future course improvement. For this purpose, action research was employed using a survey questionnaire and qualitative analysis. The concept of learning-as-problem-solving in the teaching environment is known as education action research (Burns, 2013). In this study, a questionnaire consist of 18 questions were administered and SPSS version 17 was utilized for statistical analysis.

Participants

In all, 79 undergraduate university students in three compulsory English as a foreign language course participated in this study. Participants were ethnic Japanese in their second year at the School of Economics at a Japanese University in Western Japan. All three classes were designated as upper-intermediate level and students' English-language levels were close in range to their self-reported TOEIC (Test of English for International Communication) scores between 350 and 420.

Materials and Procedures

To examine the effect of the research interests of this study, authentic materials drawn from multimedia sources, news, and documentary films on the topics of poverty, women in the workforce and employment were selected, and activities were written and designed for these classes. All video clips used pertained to the topics of these specific social issues selected as they exist not only in Japan but also in other countries. Each topic included a minimum of three videos from news and television program clips selected from the Internet. The clips of news and television programs were all in English, and the duration of each clip is within eight minutes.

The reason for the brief duration of each clip takes into consideration Mayer's third assumption, which implies that learners have a limited span for absorbing and processing information in text and audiovisual input simultaneously (Mayer, 2003). In addition, as supported by Canning-Wilson's (2000) findings, the video should be shown in segments; the media sources were carefully selected in full or part not to exceed eight minutes. Each topic has a few video clips selected from media sources. For example, the topic of poverty included three video clips, one regarding the situation in Japan and the other two in the US.

Each topic was thoroughly discussed after viewing the information in class. Activities such as checking for comprehension, identifying the problems of the topics presented, group discussions, and suggesting solutions were written in a workbook and conducted after viewing the video clips in class. Approximately three weeks of class time was devoted to each topic.

Data Analysis

Of the 18 questions that comprised the questionnaire, 16 were grouped into four categories to observe participants' responses and test the questions' consistency. All data were calculated using SPSS version 17. The first category contains 4 questions: 1, 3, 11, and 12. These questions were designed to reveal whether students perceived themselves as having understood the topics better as a result of the information presented in the media sources using clips selected from the Internet and designed for the class and the purpose of the study. This category also answers the first research question. The second category contains 3 questions: 2, 9, and 16. These questions were written to understand whether students perceived that their interests in the topics introduced in class increased. This category answers the second research question. Category three consists of four questions: 4, 8, 5, and 13; these aim to discover whether students feel that their English-language abilities have improved as a result of this learning method. This category answers research question 3. Category four contains five questions that answer research question 4 to understand if students perceive the selected topics from the Internet to be effective as a learning source.

Below is a list of the scale and survey items:
1. The information presented in the media sources viewed during the course, including news and specific topics, helped me understand the topics covered in class better.
2. The information presented in the media sources that we viewed increased my interests in the topics covered in class.
3. I received new information from the information presented in the media source viewed in class.
4. I think my listening comprehension skills have improved because after viewing the media information.
5. I think my listening ability has gotten better since I took this class.
6. I think media sources provide valid information on various topics for learning.
7. I think viewing information through media sources to support classroom learning is a good strategy.
8. I feel that my overall English-language skills have improved since taking this course because of the teaching methods.
9. I will search for information using Internet (media sources) in English in the future.
10. I now have a better understanding of foreign cultures from the information viewed in

class.

11. After taking this course, I now have a better understanding of Japanese and foreign social issues (labor, women in the workforce, employment and unemployment).
12. I now have a clearer understanding of social, ethical, and economic issues in general.
13. My TOIEC score increased as a result of taking this course.
14. Classmates' presentations (your presentations) helped me learn new information.
15. I learned from my classmates' presentations.
16. I was motivated to learn more about the topics presented by the information viewed in class and by the presentations my classmates provided.
17. I would like my other courses to utilize media sources as a way of learning new material.
18. The teaching method used in this course as a whole was a valuable experience.

Reliability and Validity

The questions in these four categories were tested to find out their internal consistency as to how closely the questions are related as a group or scale of reliability using Cronbach's alpha measurement (Table 1). The results below indicated that category three, the alpha coefficient is 0.709 in category three to have relatively high internal consistency. The results of categories one and four indicated close to relatively high internal consistency. Although the result in category two is 0.52, which is lower compared to the other categories, this does not imply that this category has low consistency. One reason for the result of the Cronbach value to be small in category two could be attributed to the smaller number of questions grouped in this category. Cronbach alpha value is affected by the number of questions asked. As the number of questions or tested items in a group increases, the Cronbach's alpha result will also increase (UCLA Institute for Digital Research and Education, 2017). Category two contains four questions, which may explain the lower level of Cronbach value.

Table 1.
Cronbach's Alpha Coefficient

Category	Cronbach alpha
1	0.642
2	0.528
3	0.709
4	0.674

Results and Discussion

In order to answer the first four research questions, the average scale of each category was calculated. Below are the results of the mean scores and standard deviation in each category among 79 students on a five-point Likert-type scale from 1 = strongly disagree to 5 = strongly agree (Table 2). The mean scores of each question and category indicate that students' answers are generally positive. Particularly in category one, in which students perceived that they have a better understanding of the topics from information presented in the media source in class (*M*

= 4.199, *SD* = 0.713), and in category four where they perceived using Internet sources for learning to be effective (*M* = 4.038, *SD* = 0.745). Although the results in categories two and three regarding students' increase in interest in the topics introduced in class (*M* = 3.966, *SD* = 0.799) and whether they feel that their English-language ability has improved through this learning method are positive (*M* = 3.677, *SD* = 0.812), but the results are lower compared to categories one and four. The higher mean scores in category one and four could possibly be explained by the effect of dual-channel input in which student process information via both auditory and visual inputs. In addition, students rely on visual and audio clues in the media sources presented to understand the materials studied. Students who perceived to have better comprehension using media sources as classroom materials also perceived Internet sources as classroom materials to be effective for learning. Although positive, the lower mean results in categories two and three could be explained by students' cultural background which affect their interests of study beyond topics introduced in class and confidence in their language abilities. The Japanese educational system is mostly teacher-centered and students are still considered to be passive in their learning. Students often lack the confidence to actively seek new information and rely on test scores to acknowledge their language improvement.

Table 2.
Means and Standard Deviations of Question Categories

Category 1			Category 2			Category 3			Category 4		
	Mean	S. D.		Mean	S.D.		Mean	S.D.		Mean	S.D.
q1	4.392	0.668	q2	4.304	0.648	q4	3.975	0.751	q17	3.785	0.811
q3	4.215	0.634	q9	3.481	0.932	q8	3.962	0.759	q18	4.684	0.468
q11	4.203	0.705	q16	4.114	0.816	q5	3.468	0.798	q6	3.911	0.720
q12	3.987	0.824				q13	3.304	0.939	q7	4.329	0.796
									q9	3.481	0.932
Avg	4.199		Avg	3.966		Avg	3.677		Avg	4.038	

Note. N=79   5= highest 1=lowest

In order to answer research question 5, a correlational analysis was conducted between perceived learning via media exposure and interest in the social issues introduced in class. The researcher used a scatterplot to display values drawn from the data collected by category one and category two (see Figure 1 below). A scatter plot can suggest the correlations between two variables and the degree of the correlation. A scatter-plot pattern slopes from the lower left to upper right to indicate a positive correlation and from the upper left to lower right to indicate a negative correlation (Utts, 2005). In this study, scatter plots for categories one and two suggested that there is a positive correlation between exposure to media information selected from the Internet and participants' interest in those issues introduced in the media, *r*(77) = .371, *p* =0.001. Regarding the degree of correlation, the scatter-plot graph showed the variables to be concentrated in one area, which indicates a positive but weak correlation (Utts, 2005).

Figure 1
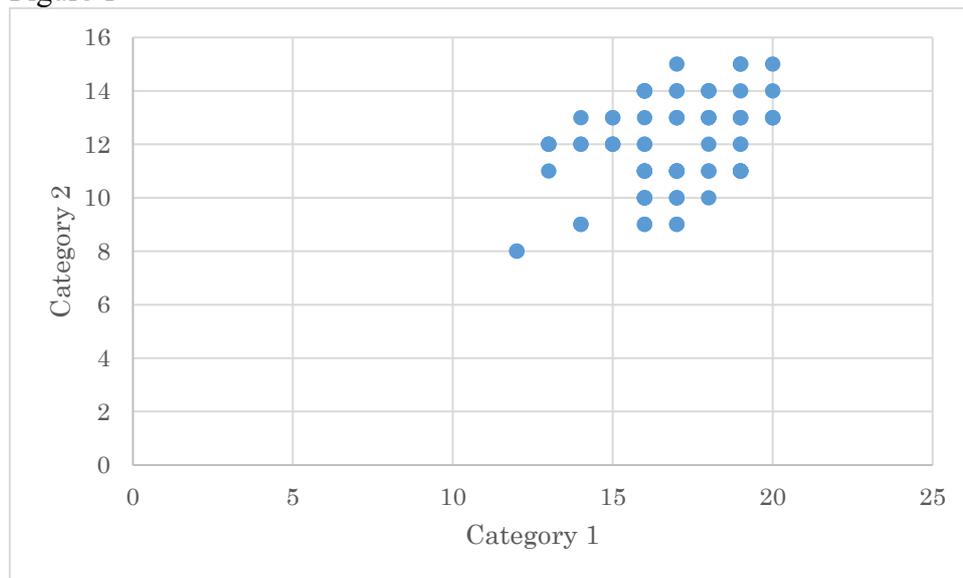
Research question 6 used the same method of scatter plot to indicate the correlation and the degree of correlation between categories three and four. Figure 2 below shows the correlation between participants' perceived effectiveness of the learning method used in this study and the participants' English ability $r(77) = .314, p = 0.007$. Similar results were indicated in the scatter plot for Figure 2, which also suggested a weak positive correction between categories three and four.

The analysis results of the relationship between categories for both research questions 5 and 6 were positive but suggested weak correlations. The weak correlation coefficients between media exposure and interest could possibly be explained by the students' native culture where students are not used to connecting materials taught in class to related issues outside the classroom. Although students perceived this learning method to be effective, there was a weak correction between their perceived learning method and their English ability. Possibly, this is because it may be difficult for students to perceive how their English ability had improved, therefore, they could not perceive a relationship between the innovative learning method and their English ability.

Figure 2
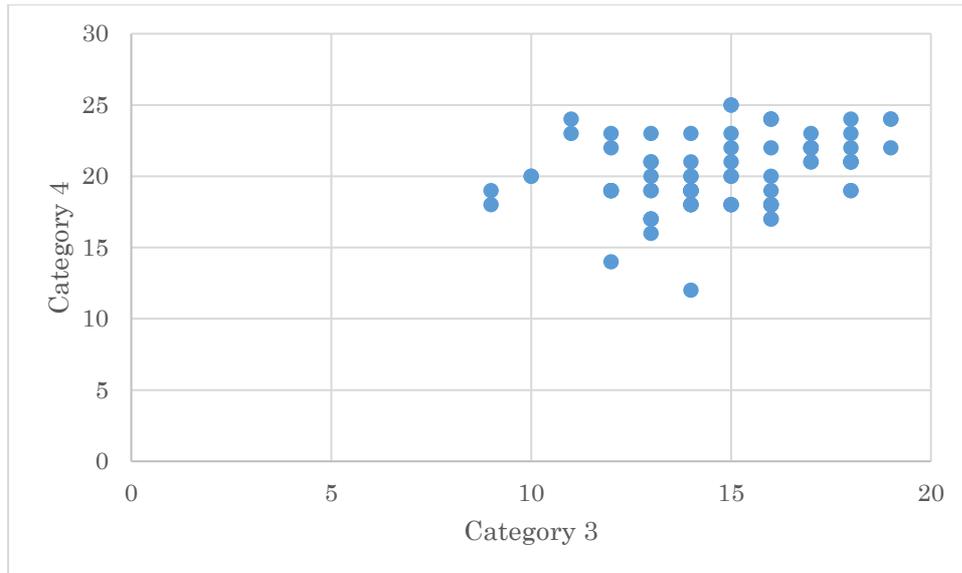
Conclusion

The aim of this study was to explore the effectiveness and potential for integrating authentic information using sources selected from multimedia in English as foreign language courses in Japan. The dual-channel assumption, the composition of video selection, materials written and classroom instructions contribute to the results of this study. In this pilot study, the overall results of the video clips selected from the Internet and materials written in accompany learning were positive. The results of the study indicated that students perceived themselves to have learned more about the social issues introduced by viewing video clips selected from media sources. Therefore, they regarded this learning method to be effective. However, the results also indicated that students are not active about pursuing additional knowledge about social issues and were not confident that their English-language skills could be improved through this learning method. These results indicate that there is a potential to continue and develop a curriculum based on using authentic information incorporating sources from multimedia in English as a foreign language classes in Japanese universities.

The underlying limitations of this study are the cultural background of the learners, the classroom instruction, and the duration of the study. In traditional Japanese English-language classes, students are passive learners in regard to following instructions and listening to lectures. Students are not accustomed to expressing their opinions and openly discussing social issues such as those addressed in this study. In this study, students received the information and were instructed for each activity. However, this teaching method requires more rigorous active participation in regard to group discussion and suggesting solutions, both of which seemed difficult for most students.

Future studies with longer duration are recommended since this teaching method was innovative and thus unfamiliar to most participants. In addition, adding to the current quantitative study, a mixed research methodology using both quantitative and qualitative analysis in future research could help triangulate the results.

As globalization continues and technology advances brings nations around the world closer, the ability to speak English becomes increasingly necessary as a communication tool among various nationalities; therefore, it is important to look at instructional practices in depth to consider their efficacy (Warschauer, 2004). A more comprehensive curriculum integrating media sources based on this study should be considered to allow learners to become familiar with active learning styles and social issues across nations.

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