Investigating the role and potentials of using Web2.0 in Music Education from student perspective

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Abstract—Young students seem immersive in web 2.0 virtual environments for their communication, coordination and social activities. However, how to take advantage of their daily experiences on the Internet to help better their formal learning still challenges educators nowadays. This study attempted to explore how to apply Web2.0 tools into music education based on students’ daily practices on the Internet and their expectations. Forty-three third-graders, age ten years old, from an elementary school in the Hsichu city were involved in this study. Quantitative approached and concept maps were adopted in this study. Results reveal that the young students, also called digital natives, have engaged in the Internet for one to three hours in a week since they were seven years old, however, they still have a large digital gap because various personal backgrounds. In addition, students shared their ideas and suggestions on how to integrate web2.0 tools in music class. Youtube, social networking websites, pod-casting and search engines could be considered popular preferences for students. Concept maps further indicate that Google, MSN, Youtube has communication, searching, visual and audio potentials for supporting musical education under company of family and teachers. In conclusion, the findings of this study might help educators and schools understand the actual needs of students and expect that teachers could make use of Web 2.0 tools in music curricula to support formal and informal music learning.

Keywords-Musical education; Web2.0

I. INTRODUCTION

The advent of the Internet has changed the way we learn, teach and live dramatically. Some of teachers and students make good use of Internet activities, such as blogging, social bookmarking, collaboration, virtual world, syndication, media-sharing for learning purposes [1]. We named those Internet activities as Web 2.0 or Web second generation, furthermore, Web 2.0 has been defined as the evolution of web utilization from active participation, creation and sharing [2].

II. BACKGROUND

Education is the key to economic growth and prosperity for every country. In order to better education, U.S. Department of Education suggested that instructors must be more than information experts, and employ technology in instructional environment and resource [4]. However, the challenges for education system are obstacles between formal and informal educational settings that technology promotes prolific learning experiences in students’ daily lives and direct to their future careers, but their learning need does not fully meet in the educational setting [1] [4]. Prensky [5] then provided a term “Digital Immigrant” to elaborate those teachers who were born before 1980 and grew up by being lack of using new technologies such as Internet, video, cell phones all the other modern devices in digital age. In addition, the similar situation appears in the music education curriculum. Integrating advanced Information Technology (IT) tools into music educational settings such as the internet or instructional software are usually considered an extra burden for the music instructors, because those teachers teach music with extremely limited resources and time [6]. For this reason, music instructors are unwilling to utilize IT as an instructional method for supporting their teachings [6]. On another aspect, however, if music instructors can better know their students’ learning expectation and daily behaviors in the web2.0 world and then change what and how they teach to match how, where
and when students learn, students could benefit from those instructional revolutions [8].

III. RESEARCH QUESTION

On the basis of the issues raised in the foregoing discussion, the following research question was formulated: what are expectations and suggestions for third-year students about applying web 2.0 tools in music educational settings?

IV. LITERATURE REVIEW

A. Applying Web2.0 tools and Information technologies into learning settings

Many researches confirm that so called Net generation have high levels of interaction with Web 2.0 technologies and the experiences of Web 2.0 activities [1] [3]. A large scaled study in 2009 was conducted by Educause Center For Applied Research (ECAR) [7] who selected 30616 undergraduate students in U.S.A. to investigate about Information technologies (IT) engagement, which indicated that 90.3 % of students pay their time on social networking websites (Facebook, Mysapce, Twitter, etc) every day for social reasons, over third of participants (35%) podcast monthly and 37.3% of people contribute to blogs monthly; furthermore, they responded positive attitude toward the technologies which they can control and were more likely attain benefits of IT in courses. However, few studies have been conducted to investigate elementary school students' perceptions of Web2.0 activities. Therefore, this study focuses on third-grade elementary school students to analyze their expectations towards use of web2.0 tools inside or outside school.

B. Digital Natives, Digital Dissonance: A discussion of Web 2.0

The terms of Digital Native are used to describe young people who born after 1980 and grew up by using new technologies such as Internet, computer, cell phones or all digital devices. They operate it at “twitch speed" also do multiple activities simultaneously [5]. Prensky [5] claimed that digital natives have different ways of thinking, shorter attention, and processing visual under the different digital cultures. However, a sense of 'digital dissonance' comes into when learners experience Web 2.0 activity in and out of school [1]. Nevertheless, researches[1] [8] pointed out that the awareness of Web 2.0 activities or information technologies in teachers is far sufficient when compared to students. Moreover, researchers indicated[1] [8] that Web2.0 activities are rarely done effectively and teachers barely link learners’ 'real life’ in the school. In this study, the author specially investigates third-grade elementary school students for better knowing their landscape of digital life. Primary school students in Taiwan firstly experience computer classes in the third grad year; therefore, those students can be considered “newborn” digital native. According to their background, this paper is worthy of understanding the image of technology and web 2.0 activities in those Net Generations.

V. METHODOLOGY

Primarily quantitative and qualitative approaches were adopted in this study. Questionnaires were designed to collect the data related to expectation of applying web 2.0 in music class. In addition, students were also asked to make their concept maps about how to utilize web2.0 tools into music class.

A. Participants

Forty-three elementary school students in the third grade participated into this study. Forty-three (twenty boys, twenty-three girls) students came from Hsin-Chu city in North of Taiwan.

B. Data Analysis

Forty-three of the questionnaires were collected and analyzed in this study. The analysis was conducted by using SPSS 12.0 software package and the five-point Likert scale implemented in the questionnaires which transformed learners’ expectations toward web2.0 online activities to quantitative data (from 5 to 1 points mean: extremely agree, very agree, somewhat agree, very disagree, extremely disagree). Later, students are divided into eight groups and asked to draw their suggestions and expectations about how to apply web2.0 websites into music class, and who will be their partners in concept maps. The descriptive statistics results are presented below.

C. Internet experience of third year primary school students

This study indicates that third year elementary school students’ the first experience of using Internet were average seven years old (M=7.09, SD=2.17), one of students responded that he experienced Internet when he was a two-year-old boy. Furthermore, this result also revealed that students have engaged on the Internet for more than three years. In addition, they spent around 1.56 hours per day on non-holidays, and 0.8 hours on the weekends.

D. Expectation of students for applying web 2.0 and technology activities in musical class

In this section of paper, we try to explore the potential possibilities about applying web2.0 and new technology activities for purpose of learning music which responded learners’ expectations regards
web2.0 online activities to quantitative data. The top 3 ranks among eight options of the web2.0 tools for integrating in the music course were: Youtube (M=3.14, SD=1.45), social networking websites (M=2.97, SD=1.45), pod-casting(M=2.97,SD=1.56) and search engine(M=2.85, SD=1.47).

Furthermore, in order to realize suggestions from students about how to apply web2.0 tools into music class, we divided 43 participates into 8 groups, we allowed learners to provide open response after discussing with their group-mates by mapping concepts. In Table I, concerning to the usage of Google, learners utilize this tool for solving the problems in homework for its' searching purpose; in addition, they would like to discuss with their classmates, friends, family and teachers. In another aspect, MSN is also a platform for discussion purpose for students. Students suggested music teachers can adopt this learning method for discussing homework with family, teachers and classmates. Finally, Youtube could supply opportunities for searching some classical music videos that students can enjoy image and sound synchronously.

<table>
<thead>
<tr>
<th>Web2.0 tools</th>
<th>Essential feature</th>
<th>How to use?</th>
<th>Who will work with you?</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Youtube</td>
<td>Watching video</td>
<td>Searching musical video</td>
<td></td>
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</table>

TABLE I  SUGGESTIONS FROM STUDENTS ABOUT HOW TO APPLY WEB2.0 TOOLS IN MUSICAL LEARNING SETTING

VI. DISCUSSION AND CONCLUSIONS

According to the results from questionnaires and concepts mapping, several findings need to be discussed. First of all, those new-born computer users have engaged in web curriculum for more than three years, one of students even first experience Internet around two years old. This finding reflects that even though most students are so called digital natives, they still have a large digital gap because various personal backgrounds. Therefore, teachers need to provide more opportunities to encourage those low social-economic status students and balance digital gap. For example, opening computer lab after school is a solution to teach those students how to take advantage of computer and Internet for learning purpose rather than playing on-line games.

In another aspect, results from questionnaires and mapping study suggest that Youtube, social networking websites, pod-casting and search engines could be considered popular choices for students in applying web2.0 into music education settings, and those newborn Net generations pay open-minded attitude toward integrating web2.0 devises into music education under social support of their parents, teachers, and peers. Finally, Google, MSN and Youtube have features in communication, searching, visual and audio for supporting musical education. Perhaps future research that could consider strategy in integrating YouTube, social networking websites, pod-casting and search engines into musical education, and keep examine learning achievement in this issue.

In conclusion, this article points to new possibilities for future research, we hope that the results of this study can provides valuable information for teachers in music education to apply Web 2.0 tools for facilitating formal and informal music education in the future.

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