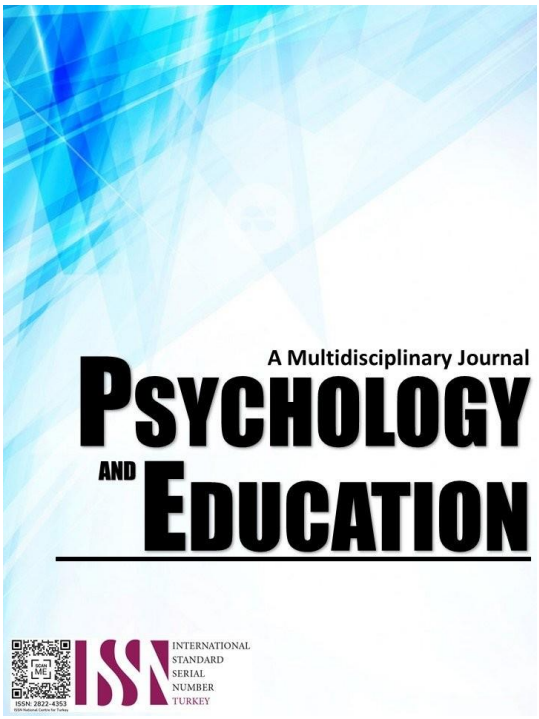
LEVELS OF SELF-EFFICACY AND INTEGRATION OF WEB 2.0 TOOLS IN CLASSROOM INSTRUCTION AMONG SECONDARY TEACHERS



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Research Article

Levels of Self-Efficacy and Integration of Web 2.0 Tools in Classroom Instruction among Secondary Teachers

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Abstract

The integration of technology in the classroom has become increasingly important and it caused the aspects in which students learn today. In today's digital age, incorporating Web 2.0 tools into lessons in the classroom has become increasingly important. Nonetheless, the level of self-efficacy among teachers, which reflects their confidence in utilizing these tools, plays a critical impact in deciding how much integration they receive. The goal of this action plan is to equip teachers with the necessary knowledge, skills, and resources to effectively integrate Web 2.0 tools into their teaching, leading to enhanced student engagement and improved learning outcomes. This study used a quantitative approach to survey questionnaires with analysis and descriptive statistics in gathering information for secondary school teachers in the West 2 District of Iligan City. Findings revealed that teachers agreed on being confident to use Web 2.0 tools in teaching, but the integration of these tools is low and could be further enhanced. Concerning with the rare use of Web 2.0 tools in classroom instructions indicates that several factors were involved.

Keywords: *levels of self-efficacy, integration of web 2.0 tools, classroom instruction, secondary teachers*

Introduction

In today's digital age, the integration of technology in the classroom has become increasingly important and it caused the aspects in which students learn today. According to the "The Digital 2022 report by "We Are Social and Hootsuite", it states that in the Philippines as of February 2022, there were 76.01 million internet users representing 68% of the population, 92.05 million are social media users or 82.4% of the population, and 156.5 million or 140% were mobile users (https://datareportal.com/reports/digital-2022-philippines). We can't deny the truth that technological usage in today's classrooms is increasing as teachers find ways to involve learners and boost their learning potential.

Republic Act (RA) 10533 or the Enhanced Basic Education Act of 2013, the K to 12 Curriculum, encourages the utilization of ICT in education. Section 5 of RA 10533 states that the K-12 curriculum shall be student-centered and competency-based, and shall include the integration of ICT for use in classroom instruction. It also provides that technological use shall be integrated across all learning areas and subjects. In fact, DepEd Order No. 35, s. 2016 emphasizes lesson enrichment with developmentally appropriate functional implementation approaches using ICT. In general, the DepEd has recognized the potential of technology, including Web 2.0 tools, to improve the quality of education.

As technology is an indispensable part of a learner's life, it is of utmost importance for teachers to integrate technological innovations into their instruction to maximize student engagement in their classes (Balbay & Erkan, 2018). Web 2.0 tools were used by most educators as methods and techniques suitable for contemporary education and as developed tools and materials combined with student-centered methods and techniques to make subjects more meaningful for learners. Web 2.0 tools are web applications that facilitate the interactive exchange of information, user-centered designs, and collaboration on the Internet (Ursu, et.al.,2021). Web 2.0 tools, such as learning management systems, digital storytelling platforms, social networking sites, and video-sharing sites, provide teachers with new and innovative ways to engage students and enhance learning experiences. However, to effectively integrate these tools into their teaching, teachers need to have a certain level of self-efficacy, or belief in their abilities to use these tools.

The level of teachers' self-efficacy on Web 2.0 tools integration can have a significant impact on the level of integration of Web 2.0 tools in their teaching. Teachers with high levels of self-efficacy are more likely to use these tools confidently and effectively, while those with low levels of self-efficacy may avoid using these tools or use them in a limited capacity.

Therefore, it is important to understand the level of teachers' self-efficacy on Web 2.0 tools integration and their level of integration of these tools in the classroom. By understanding these factors, schools and educational institutions can develop strategies and programs to support teachers in improving their self-efficacy and integration of Web 2.0 tools, leading to enhanced teaching and learning experiences for students.

While some research exists on teachers' level of integration of Web 2.0 tools in classroom instruction, in-depth research studies are not prevalent on teachers' self-efficacy on Web 2.0 tool integration. Many conducted studies on Web 2.0 tools however extensive research does not exist on the `teachers' self-efficacy and their level of integration of these tools in their classroom instructions at the secondary level here in the Philippines.

The mentioned problem above can be seen and observed in an actual classroom situation in the Philippines. Up to now in the Philippines, the common way of delivering formal education to learners remains through the traditional teacher-centered approach. Generation Z are addicted to electronic gadgets and digital media and for this reason, traditional teaching styles may no longer be

relevant to their needs and interests as they are more reliant on new technology to assist their learning (Javaeed, et al., 2020).

Changing the methods of instruction, teachers' roles as facilitators in the learning process, and using Web 2.0 tools in classrooms to help interact with others will lead students to understand, assimilate and relate more closely to the subject matter content presented to them. Hence, fostering self-efficacy is essential to provide teachers with the necessary support for technology integration in the realm of learning and teaching. Because of the limited studies found on Web 2.0 integration at the secondary level, there is an interesting issue about the current phenomena which occurs in our education system lately.

In today's digital age, incorporating Web 2.0 tools into lessons in the classroom has become increasingly important. Nonetheless, the level of self-efficacy among teachers, which reflects their confidence in utilizing these tools, plays a critical impact in deciding how much integration they receive. Teachers who have levels of self-efficacy which is high tend to demonstrate a greater inclination toward utilizing Web 2.0 tools confidently and effectively. Conversely, those with levels of self-efficacy which is low may either avoid using such tools or utilize them to a limited extent.

This study was created to fill a gap identified in the literature because it narrowed the focus on the secondary teachers' self-efficacy level and their integration level with Web 2.0 tools. Furthermore, to address this issue, an action plan can be implemented to support teachers in improving their level of self-efficacy on Web 2.0 tools integration and their level of integration in the classroom. This action plan should involve various strategies and programs aimed at building teachers' belief in themselves and their capability in using these tools.

The goal of this action plan is to equip teachers with the necessary knowledge, skills, and resources to effectively integrate Web 2.0 tools into their teaching, leading to enhanced student engagement and improved learning outcomes. By implementing this action plan, schools and educational institutions can create a culture of innovation and technology integration, empowering teachers in utilizing Web 2.0 tools competently and with confidence.

Research Questions

This study aimed to determine the public secondary school teachers' levels of integration on Web 2.0 tool and their levels of self-efficacy on Web 2.0 tool in classroom instructions in the West 2 district, Division of Iligan City during the School Year 2022 – 2023. Specifically, it sought answers to the following questions:

1. What is the level of self-efficacy of the secondary school teachers on Web 2.0 tools in classroom instruction in terms of:
    1.1. Learning Management System;
    1.2. Digital Story Telling;
    1.3. Video Sharing;
    1.4. Social Networking;
    1.5. Blog; and
    1.6. Instant Messaging?
2. What is the level of integration of the secondary school teachers on the Web 2.0 tools in classroom instructions?
3. Is there a significant relationship between the teachers' level of self-efficacy in using Web 2.0 tools and their level of integration of Web 2.0 tools in classroom instructions?

Methodology

Research Design

This study used a quantitative approach to survey questionnaires with analysis and descriptive statistics in gathering information for secondary school teachers in the West 2 District of Iligan City. A descriptive method was used to explain the teachers' Web 2.0 integration self-efficacy level and level of Web 2.0 tools integration in classroom instruction and multiple regression analysis was used for the significant relationship of the variables.

A quantitative approach using survey questionnaires with analysis and descriptive statistics can be an effective research design to investigate the level of self-efficacy and integration of Web 2.0 tools among teachers. The data collected can provide valuable insights into the factors that influence the successful integration of Web 2.0 tools in teaching and inform the development of effective professional development programs for teachers.

Respondents

The participants in this research consisted of all secondary school teachers in West 2 District, Division of Iligan City from 3 secondary schools during the school year 2022-2023 from junior high school and senior high school, teaching different subjects. A simple random sampling technique was used. The district was composed of three secondary schools which comprises 115 teachers. 35 teachers from Maria Cristina National High School, 19 teachers from Ditucalan National High School, and 61 teachers from Iligan City National School of Fisheries. The overall count of survey questionnaires delivered to schools was 115 and 110 were returned. 90% of the total number of teachers per school 31 from Maria Cristina National High School, 17 from Ditucalan National High School, and 55 from

Iligan City National School of Fisheries were randomly chosen with a total of 103 respondents.

Table 1. *Number of Respondents per School*

School	*Male Teachers*	*Female Teachers*	*Total number of Teachers*	*90% of Teachers*
Maria Cristina National High School	14	21	35	31
Ditucalan National High School	3	16	19	17
Iligan City National School of Fisheries	15	46	61	55
Total	32	83	115	103

Among the target samples were 115 respondents of whom 110 returned the survey questionnaires. Within the school, the teacher was asked to complete the survey questionnaires detailing their levels of self-efficacy and integration of Web 2.0 tools within their classroom. The teachers were allowed to take part in the study at their convenient time. Before initiating the study, the researchers prepared the survey questionnaires and consent forms instructing the respondents about the intent of the study.

Instruments

In this study, a quantitative survey instrument was utilized and it is self-administered and respondents were allowed to complete it at their own chosen place and at any time that is convenient for them. Instruments were modified to suit the present-day advancement of Web 2.0 tools.

The adapted questionnaires consist of three parts. Part I was used to collecting data about the demographic profile of the respondents, which includes age, gender, education level, grade level being handled and subject areas being taught, and exposure to Web 2.0 training/courses in education. The instruments contained two translated and modified research instruments from a previous study (Pan, 2010). Part II contained a Web 2.0 Tools Integration Self-Efficacy Level instrument consisting of 30 items measuring teachers' self-efficacy in using the 6 types of Web 2.0 tools studied in their practices of teaching by responding to a four-point Likert scale ranging: (4) Strongly Agree, (3) Agree, (2) Disagree, (1) Strongly Disagree. Part III contained a modified research instrument from a previous study (Pan, 2010). It was based on recent trends in technology integration tools. It consists of a Web 2.0 integration instrument containing 6 items to measure the level of Web 2.0 tools integration in teaching in terms of a four-point Likert scale ranging from (4) High Level (Daily), (3) Medium Level (at least once a week), (2) Low Level (at least once a month), (1) Not at All. Data of examples of Web 2.0 applications used for each Web 2.0 tool in the study were also collected. The respondents were also encouraged to leave any comments or suggestions for using Web 2.0 tools.

Procedure

The researchers initiated the study by obtaining permission from Schools Division Superintendent in which the study took place. This approval was obtained through written permission. Once written approval was obtained, the researchers then hand carried the letter to the Public School District Supervisor to inform them about the study and when it was signed. The researchers then met the school principals of the participating secondary schools to explain the purpose, sample of the study and the administration dates of questionnaires at schools. All participating schools taught Junior High School and Senior High School students (grades 7 to 12).

The teachers were informed of the voluntary nature of the study and the right to withdraw from the study at any time, without penalty or loss of benefit. The respondents were notified that the findings of the study might be published; however, the identifying information would not be included. Those who consented to take part were asked to read the informed consent form and the researchers requested somebody to assist in the administration and the retrieval of the questionnaires to facilitate the gathering of data. The respondents were asked to complete both the research questionnaire for Web 2.0 tools integration self-efficacy level and the questionnaire for the level of Web 2.0 tools integration to classroom instruction. To ensure the confidentiality of the respondents, no names were reported on the survey. The data were collected over one month (February 28-April 3, 2023) due to some school activities both of the responders and researchers. The completed survey questionnaires were encoded by the researchers and were numbered to identify the participants from each location. The researchers was the only person with access to both the consent forms and the survey questionnaires. At the end of the archival period, three years from the date of the test administration, all surveys and consent forms will be destroyed by the researchers.

No pilot study was administered as the validity and reliability of each of the surveys are available from past studies of Pan (2010), as cited in Choo et al. (2020). The validity of the instruments used was reviewed by three faculty members of the Teacher Education Institute to ensure the integrity of the instrument. The instrument's reliability in terms of internal consistency was examined with Cronbach Alpha analysis. The Cronbach Alpha value for Web 2.0 Integration Instrument was 0.82 while Web 2.0 Tools Integration Self-Efficacy Instrument was 0.95. Cronbach's Alpha value of >0.9 is very good and >0.8 is good and acceptable (George & Mallery, 2003, as cited in Choo et al., 2020).

Data Analysis

The data were tabulated and interpreted to acquire the actual information needed. The succeeding statistical techniques were employed to answer the different problems presented: For Problems 1 and 2, descriptive analysis of mean and standard deviation was used to

examine teachers' self-efficacy level in using Web 2.0 tools and their level of integration of Web 2.0 tools in classroom instruction. Level interpretations for the teachers' level of self-efficacy were determined through a mean scale ranging from 1.00-1.49 (strongly disagree), 1.50-2.49 (Disagree), 2.50-3.49 (Agree), and 3.50-4.00 (Strongly Agree) and also the standard deviation. On the other hand, for the level of integration of Web 2.0 tools, the mean scale ranging from 1.00-1.49 (not at all), 1.50-2.49 (low level), 2.50-3.49 (medium level), and 3.50-4.00 (high level) and standard deviation were also used. For Problem 3, Multiple regression analysis was used to determine the significant relationship between teachers' Web 2.0 tools integration self-efficacy level and the level of Web 2.0 tools integration in classroom instruction.

Results and Discussion

Problem 1: What is the level of self-efficacy of the secondary school teachers on Web 2.0 tools in classroom instruction in terms of learning management systems, digital storytelling, video sharing, social networking, blog, and instant messaging?

Table 2. *Level of Self-Efficacy of the Secondary School Teachers on Web 2.0 Tools in classroom instruction in Terms of Learning Management Systems*

Indicators	*Mean ± SD*	*Description*
1. Manage classroom materials, such as post-syllabus and curriculum documents online	3.16±.72	Agree
2. Use embedded tools to communicate and interact with my students, such as Blog, wiki, announcement, chat room	3.25±.56	Agree
3. Arrange the layout of my LMS site, such as displaying course material as weekly topics or social issues.	2.99±.80	Agree
4. Assess the progress of my students	3.21±.64	Agree
5. Create quizzes for my students online	3.02±.79	Agree
Total Measure	3.13±.62	Agree

Note: 1.00-1.49 Strongly Disagree 1.50-2.49 Disagree 2.50-3.49 Agree 3.50-4.00 Strongly Agree

Table 2 presents the mean and standard deviation scores of the level of self-efficacy of secondary school teachers on Web 2.0 tools in classroom instruction, specifically in the context of Learning Management Systems (LMS). The results show that the teachers' overall self-efficacy level score in using LMS is 3.13 (SD=.62), which falls under the category of "Agree".

The study findings indicate that secondary school teachers have a relatively high level of self-efficacy in the use of Learning Management Systems (LMS) for classroom instruction. The mean score for the total measure of self-efficacy is 3.13 out of 4, which indicates an agreement on the use of LMS in the classroom.

The first item on managing classroom materials online has a mean score of 3.16, indicating that the teachers agree that they can use LMS to manage classroom materials such as syllabi and curriculum documents. The second item on using embedded tools to communicate and interact with students such as blogs, wikis, announcements, and chat rooms has a mean score of 3.25, indicating that the teachers agree that they can use LMS to facilitate communication and interaction with students.

The third item on arranging the layout of the LMS site has a mean score of 2.99, indicating that the teachers agree that they can use LMS to arrange the layout of the course material as weekly topics or social issues. The fourth item on assessing the progress of students using LMS has a mean score of 3.21, indicating that teachers agree that they can use LMS to assess the development of their students. The fifth item on creating quizzes for students online has a mean score of 3.02, indicating that teachers agree that they can use LMS to create quizzes for students online.

The findings are consistent with previous studies that also showed that teachers have a moderate to high level of self-efficacy in using LMSs in classroom instruction (e.g., Chen & Wu, 2019; Teo, 2017). The use of LMSs is seen as an effective way to organize and manage course materials, communicate with students, and assess their progress (Ally, 2008). It is not surprising, therefore, that the teachers in the study have a higher level of self-efficacy in these areas. The lower level of self-efficacy in arranging the layout of the LMS site maybe because this is a more technical aspect of using Web 2.0 tools. Teachers may need more training and support in this area to feel more self-assured in their capacity to arrange the layout of their LMS site.

Overall, the results suggest that secondary school teachers have a moderate to high level of self-efficacy in using Web 2.0 tools, particularly in the context of LMSs. This finding is important as it shows that teachers are willing and able to use these tools in their classroom instruction. However, there is still room for improvement, particularly in the technical aspects of Web 2.0 tools integration. More training and support could be required to help teachers feel more confident in using these tools effectively in their teaching practice.

Table 3. *Level of Self-Efficacy of the Secondary School Teachers on Web 2.0 Tools in classroom instruction in Terms of Digital Story Telling*

Indicators	*Mean ± SD*	*Description*
1. Add up audio sound (such as background music or narrative) to my movies	3.10±.62	Agree
2. Publish my movies as common video files such as WMV, MOV, or mp4 files so that others can review them easily (without using specific software such as iMovie and and Movie Maker)	2.93±.77	Agree

3. Edit video clip to create a movie	2.94±.61	Agree
4. Use still images/photos to create movies	3.01±.69	Agree
5. Use still images/photos to create digital stories	3.07±.69	Agree
Total Measure	3.01±.59	Agree

Note: 1.00-1.49 Strongly Disagree 1.50-2.49 Disagree 2.50-3.49 Agree 3.50-4.00 Strongly Agree

Table 3 indicates that secondary school teachers have a positive level of self-efficacy toward using Web 2.0 tools in classroom instruction for digital storytelling. The results show that the teachers have a moderate level of self-efficacy in using digital storytelling tools for classroom instruction. The mean score of all items is 3.01±.59, which is indicative of a positive attitude towards using digital storytelling tools. The highest mean score was obtained for adding audio sounds to movies (3.10±.62), followed by using still images/photos to create movies (3.01±.69) and digital stories (3.07±.69). The lowest mean score was obtained for publishing movies as common video files (2.93±.77).

This result suggests that the teachers are more confident in using digital storytelling tools that involve adding audio and using still images/photos rather than publishing movies in common video files. The teachers may lack the technical skills to publish movies in common video files, which could affect their self-efficacy in this area.

The use of digital storytelling in classroom instruction is effective in enhancing students' learning and engagement (Chen & Chuang, 2020). Therefore, teachers need to have a high level of self-efficacy in using these tools to effectively integrate them into their instruction. Overall, the results indicate that the teachers have a positive attitude toward using digital storytelling tools for classroom instruction. However, there is room for improvement in terms of their self-efficacy in publishing movies in common video files. Training and professional development programs that focus on developing teachers' technical skills in using digital storytelling tools can be beneficial to increase their self-efficacy in this area.

These findings are consistent with previous studies that have reported a positive relationship between teachers' self-efficacy and their adoption of technology in the classroom (Chen & Wu, 2020). However, it is important to note that the mean scores for some items, such as publishing movies as common video files and editing video clips to create movies, are relatively lower than other items. This suggests that some teachers may still require additional support and training in these specific areas to enhance their self-efficacy and confidence in using digital storytelling tools effectively in their teaching.

In summary, the results of this study suggested that secondary school teachers have a moderate level of self-efficacy in using digital storytelling tools in their classroom instruction. These findings highlighted the importance of providing ongoing professional development and support for teachers to enhance their self-efficacy and confidence in using Web 2.0 tools effectively in their teaching.

Table 4. *Level of Self-Efficacy of the Secondary School Teachers on Web 2.0 Tools in classroom instruction in Terms of Video Sharing*

Indicators	*Mean ± SD*	*Description*
1. Download and upload video clips/ segments online	3.33±.47	Agree
2. Use to upload lessons	3.25±.52	Agree
3. Use to enable people to learn a lot by uploading educational video clips	3.17±.54	Agree
4. Use to share moments	3.17±.54	Agree
5. Use to connect with other people	3.26±.44	Agree
Total Measure	3.24±.44	Agree

Note: 1.00-1.49 Strongly Disagree 1.50-2.49 Disagree 2.50-3.49 Agree 3.50-4.00 Strongly Agree

Table 4 shows that secondary school teachers have a positive level of self-efficacy toward using Web 2.0 tools for video sharing in classroom instruction. The total mean score of 3.24 indicates that the teachers strongly agree with their self-efficacy level in using video-sharing tools. The results on the level of self-efficacy of secondary school teachers in web 2.0 tools integration with regards to video sharing showed that the mean scores for all the items were above 3, indicating that the teachers agreed that they are capable of using video sharing tools in their classroom instruction. The highest mean score was obtained in item 1, which pertains to downloading and uploading video clips/segments online, followed closely by item 2, which is using video sharing to upload lessons.

The results suggested that secondary school teachers have a positive attitude and a moderate level of self-efficacy in using video-sharing tools in classroom instruction. This finding is consistent with the study of Kim and Lee (2018), which found that teachers who had a higher level of self-efficacy in using Web 2.0 tools were more likely to use them effectively in their teaching.

The use of video-sharing tools can help enhance students' engagement and participation, as well as promote collaborative learning. Furthermore, it provides student with opportunities to practice their digital literacy skills, which are essential in today's society. Therefore, teachers must be proficient in using these tools to ensure effective teaching and learning. Overall, the results suggest that while secondary school teachers have a moderate level of self-efficacy in using video-sharing tools, there is still room for improvement. Professional development programs that focus on enhancing teachers' skills and knowledge in using web 2.0 tools, particularly video-sharing tools, can be beneficial in improving teachers' self-efficacy and, ultimately, student learning outcomes.

Similarly, the highest mean score in this category was for the item "Download and upload video clips/segments online" with a score of

3.33±.47, indicating that teachers feel most confident in this particular skill. This could be because video-sharing platforms like YouTube have become more commonly used and accessible over the years, and teachers may have had more exposure to them in their personal lives.

The use of video-sharing platforms in education has been gaining popularity in recent years as a way to engage students and enhance learning. Research has shown that videos can be an effective tool for promoting deeper learning, as they can provide visual and auditory cues that help students better understand complex concepts (Laurillard, 2008). Video-sharing platforms can also enable teachers to reach a wider audience and facilitate outside-of-the-classroom education.

Overall, the results of this study suggest that secondary school teachers felt confident in their ability to use video-sharing tools in their teaching practice. This is a positive sign as it indicates that teachers are willing to explore new methods of teaching and are open to integrating technology into their teaching practice. However, ongoing professional development and support may still be necessary to ensure that teachers are effectively utilizing these tools to enhance student learning outcomes.

Table 5. *Level of Self-Efficacy of the Secondary School Teachers on Web 2.0 Tools in classroom instruction in Terms of Social Networking*

Indicators	*Mean ± SD*	*Description*
1. Access Facebook to talk to other people	3.52±.50	Strongly Agree
2. Maintain contact with my friends through social networking sites	3.48±.59	Agree
3. Invite friends to join my social networking sites	3.40±.49	Agree
4. Post information on social networking sites	3.45±.50	Agree
5. Create my social networking site	2.92±.84	Agree
Total Measure	3.35±.45	Agree

Note: 1.00-1.49 Strongly Disagree 1.50-2.49 Disagree 2.50-3.49 Agree 3.50-4.00 Strongly Agree

Table 5 shows the results of the level of self-efficacy of secondary school teachers in using social networking tools for classroom instruction. The mean score for the total measure is 3.35 (SD=.45), indicating that the teachers agree that they have a high level of self-efficacy in using social networking tools for classroom instruction.

The results on the Level of Self-Efficacy of Secondary School Teachers on Web 2.0 tools in classroom instruction in terms of Social Networking reveal that teachers have a high level of self-efficacy when it comes to using social networking sites. Specifically, teachers strongly agreed on accessing Facebook to communicate with other people and agreed on maintaining contact with friends, inviting friends to join social networking sites, and posting information on social networking sites.

These results suggested that teachers recognize the prospective advantages of social networking platforms in terms of communication and collaboration with colleagues, students, and parents. Social networking sites can provide a platform for sharing ideas, resources, and feedback, and also engaging with students and their families outside of the classroom.

According to the literature, social networking sites can enhance teacher-student relationships, offer a platform for peer collaboration and feedback, and facilitate the development of digital literacy skills (Camas, Valero & Vendrell, 2021). Moreover, social networking sites can also promote professional development and networking opportunities for teachers (Gleason, 2012).

However, teachers need to use social networking sites responsibly and ethically, particularly in terms of privacy and maintaining appropriate boundaries with students. Teachers must also consider the potential risks and drawbacks of using social networking sites, such as cyberbullying and negative impacts on mental health (Abaido, 2020).

Overall, the high level of self-efficacy reported by teachers in this study regarding social networking sites suggests that these tools have the potential to enhance teacher-student communication and collaboration. However, teachers need to use these tools responsibly and with caution, while also considering potential risks and drawbacks.

Table 6 shows the results of the level of self-efficacy of secondary school teachers in using blogs for classroom instruction. The results of the Level of Self-Efficacy of the Secondary School Teachers on Web 2.0 tools in classroom instruction in terms of Blog show that the teachers have a moderate level of self-efficacy in using blog tools in classroom instruction, with a mean score of 2.96±.73, which indicates agreement with the statements. The highest mean score was for adding links to a blog (3.02±.75), while the lowest mean score was for creating a blog to be accessed by their students as part of a lesson (2.84±.82).

The results suggested that teachers felt comfortable using blogs as a tool for classroom instruction but may not be as confident in creating their blogs. This could be due to a lack of training or familiarity with the technical aspects of creating and maintaining a blog. Research suggested that teacher self-efficacy is an important factor in the successful integration of technology into classroom instruction (Ertmer, Ottenbreit-Leftwich, & York, 2007). Therefore, teacher training programs need to provide opportunities for teachers to develop their self-efficacy in using various Web 2.0 tools, including blogs.

Table 6. *Level of Self-Efficacy of the Secondary School Teachers on Web 2.0 Tools in classroom instruction in Terms of Blog*

Indicators	*Mean ± SD*	*Description*
1. Add links to a blog	3.02±.75	Agree

2. Create my blog (to be accessed by my students as part of a lesson)	2.84±.82	Agree
3. Post news or comment on a blog	2.98±.73	Agree
4. Upload attached files on a blog	2.98±.73	Agree
5. Edit or delete information on a blog	2.98±.73	Agree
Total Measure	2.96±.73	Agree

Note: 1.00-1.49 Strongly Disagree 1.50-2.49 Disagree 2.50-3.49 Agree 3.50-4.00 Strongly Agree

Overall, the results of this study suggested that secondary school teachers have a moderate level of self-efficacy in using various Web 2.0 tools in classroom instruction, including digital storytelling, video sharing, social networking, and blogging. While the results indicated that teachers generally feel comfortable using these tools, there may be areas where additional training and support could help teachers to further develop their skills and confidence in using these tools effectively in the classroom.

Table 7. *Level of Self-Efficacy of the Secondary School Teachers on Web 2.0 Tools in classroom instruction in Terms of Instant Messaging*

Indicators	*Mean ± SD*	*Description*
1. Send instant messages through mobile phone	3.45±.50	Agree
2. Chat with friends online by text message, such as using MNS, G-Mail	3.45±.50	Agree
3. Review instant messages on mobile gadgets	3.41±.49	Agree
4. Chat with friends online by audio voice, such as using Skype	3.28±.49	Agree
5. Chat with friends and see their video images online	3.34±.52	Agree
Total Measure	3.38±.44	Agree

Note: 1.00-1.49 Strongly Disagree 1.50-2.49 Disagree 2.50-3.49 Agree 3.50-4.00 Strongly Agree

Table 7 presents the results of the level of self-efficacy of secondary school teachers on Web 2.0 tools in classroom instruction in terms of Instant Messaging. The mean scores for each item are above 3.0, indicating that the teachers have a high level of self-efficacy in using instant messaging tools in their teaching practices. Specifically, the teachers were confident in sending instant messages through mobile phones, chatting with friends online by text message, reviewing instant messages on mobile gadgets, chatting with friends online by audio voice, and chatting with friends and seeing their video images online. The total measure mean score of 3.38 and variation of .44 indicates that the teachers have a high level of self-efficacy in using instant messaging tools overall.

The results of the study indicate that the secondary school teachers in this sample had a relatively high level of self-efficacy in using various Web 2.0 tools for classroom instruction. In terms of digital storytelling, the teachers were most confident in adding audio sound to their movies and using still images to create movies or digital stories. This is consistent with the idea that digital storytelling can be an engaging and effective teaching tool, as it allows students to develop their creativity and communication skills while also learning content.

Regarding video sharing, the teachers in this study were highly confident in using online platforms to upload and share educational video clips. This finding aligns with previous research that suggests video sharing can be an effective way to engage students and enhance learning outcomes. For example, a study by Mayer (2009) found that students who watched video lessons scored higher on a test than those who received traditional instruction. Moreover, video-sharing platforms like YouTube provide teachers with access to a wealth of educational content that they can use to supplement their lessons.

In terms of social networking, the teachers in this study reported high levels of self-efficacy in using Facebook to communicate with others and maintain contact with friends. While social networking sites are often associated with leisure activities, they can also be used to support learning and foster collaboration among students. For example, a study by Manca and Ranieri (2016) found that a Facebook group helped to facilitate communication and collaboration among students in an online course.

The teachers in this study also reported moderate levels of self-efficacy in using blogs and instant messaging for classroom instruction. While blogs can be a useful tool for sharing information and resources with students, they require a significant investment of time and effort to maintain. Similarly, instant messaging can be a convenient way to communicate with students, but it may not be the most effective way to facilitate learning or promote engagement.

Overall, the results of this study suggested that secondary school teachers have a high degree of self-efficacy in using Web 2.0 tools for classroom instruction. However, it is important to note that self-efficacy does not necessarily translate into effective teaching practice. Teachers need to have a solid understanding of pedagogy and instructional design to successfully incorporate technology in lessons and support student learning. Further research is needed to explore the relationship between self-efficacy, teacher knowledge and skills, and student outcomes in Web 2.0-enabled classrooms.

Table 8 presents the consolidated findings of the level of self-efficacy of secondary school teachers on the use of Web 2.0 tools in classroom instruction. The mean scores for each tool range from 2.96 to 3.38, indicating that teachers have an overall agreement level of self-efficacy in using these tools in the classroom. The highest mean score was found in Instant Messaging (mean=3.38, SD=.44), indicating that teachers are highly confident in using this tool in the classroom. The lowest mean score was found in Blog (mean=2.96, SD=.73), indicating that teachers are less confident in using this tool in classroom instruction. This finding is in line with the past study

by Alhassan (20170, as cited in Choo, et al. 2020) in which the level of teachers' self-efficacy level ranges from moderate to high for closely similar Web 2.0 tools being studied.

Table 8. *Consolidated Findings of the Level of Self-Efficacy of the Secondary School Teachers on Web 2.0 Tools in classroom instruction*

Indicators	*Mean ± SD*	*Description*
Learning Management System (LMS)	3.13±.62	Agree
Digital Story Telling	3.01±.59	Agree
Video Sharing	3.24±.44	Agree
Social Networking	3.35±.45	Agree
Blog	2.96±.73	Agree
Instant Messaging	3.38±.44	Agree
Total Measure	3.18±.45	Agree

Note: 1.00-1.49 Strongly Disagree 1.50-2.49 Disagree 2.50-3.49 Agree 3.50-4.00 Strongly Agree

The results of the study indicate that secondary school teachers generally have a positive level of self-efficacy toward using Web 2.0 tools in classroom instruction. Among the Web 2.0 tools, social networking received the highest mean score, with the teachers strongly agreeing that they access Facebook to talk to other people and maintain contact with their friends through social networking sites. This result is in line with the literature that suggests social networking can provide a platform for communication and collaboration among students, teachers, and parents (Kirschner & Karpinski, 2010).

The next highest mean scores were for video sharing and instant messaging, with the teachers agreeing that they can download and upload video clips online, send instant messages through mobile phones, and review instant messages on mobile gadgets. Video sharing may be a powerful instrument for delivering content engagingly and interactively (Hung et al., 2013), while instant messaging can be used for quick communication and collaboration among teachers and students (Kirschner & Karpinski, 2010).

On the other hand, the teachers had lower mean scores for blog and digital storytelling, with blogs receiving the lowest score. This may be due to the belief that blogging requires more time and effort to create and maintain compared to other Web 2.0 tools (Boling et al., 2012).

Overall, the consolidated findings suggest that secondary school teachers have a positive level of self-efficacy toward using Web 2.0 tools in classroom instruction. However, further training and support could be required to increase their self-efficacy and skills in using certain tools, such as blogs and digital storytelling, which received lower mean scores.

Problem 2: What is the level of integration of the secondary school teachers on the Web 2.0 tools in classroom instructions

Table 9. *Level of Integration of the Secondary School Teachers on the Web 2.0 Tools in Classroom Instruction in Terms of Learning Management System (LMS)*

I integrate the following LMS in the classroom with my students	*Mean ± SD*	*Description*
Moodle	1.34±.63	Not At All
My.eskwela	1.60±.90	Low Level
Edmodo	1.42±.76	Not At All
Quipper	1.48±.81	Not At All
Google Classroom	2.00±1.02	Low Level
Zoom	1.79±1.08	Low Level
Total Measure	1.60±.70	Low Level

Note: 1.00-1.49 Not At All 1.50-2.49 Low Level 2.50-3.49 Medium Level 3.50-4.00 High Level

Table 9 shows the level of integration of secondary school teachers on various learning management systems (LMS) in their classroom instruction. The results suggested that the level of integration of Learning Management Systems (LMS) among secondary school teachers is generally low, with an overall mean of 1.60±.70. Among the specific LMS platforms, Moodle and Edmodo were reported to have the lowest integration with classroom instruction, with mean scores of 1.34±.63 and 1.42±.76, respectively. This implies that teachers are not utilizing these platforms for classroom instruction as much as they could.

On the other hand, My.eskwela, Quipper, Google Classroom, and Zoom were reported to have low integration with classroom instruction, with mean scores ranging from 1.48±.81 to 2.00±1.02. These results suggest that some teachers are starting to use these platforms in their instruction, but the level of integration is still relatively low.

The low level of integration of LMS in classroom instruction could be due to various factors such as lack of training, lack of access to technology, and lack of time. The findings of a study by Warschauer and Matuchniak (2010) support this, as they found that the effective integration of technology in the classroom requires appropriate teacher training and support, access to technology, and adequate time to plan and implement technology-enhanced lessons.

Furthermore, the low level of integration of LMS in classroom instruction could also be attributed to the perceived difficulty of using

these tools. Research by Teo (2010) found that teacher self-efficacy in using technology is positively related to their integration of technology in the classroom. Hence, it is important to provide teachers with adequate training and support to increase their self-efficacy and confidence in using LMS in their instruction.

In conclusion, the low level of integration of LMS in classroom instruction among secondary school teachers highlights a greater requirement for training and support to increase their confidence and self-efficacy in using these tools. The study's conclusions provide insights for educational policymakers and school administrators to develop strategies and programs to support teachers in their integration of technology in classroom instruction.

Table 10. *Level of Integration of the Secondary School Teachers on the Web 2.0 Tools in Classroom Instruction in Terms of Digital Story-Telling Tools*

I integrate the following Digital Story Telling tools/applications with my students	*Mean ± SD*	*Description*
Animaker	1.25±.50	Not At All
Adobe Slate	1.46±.84	Not At All
iMovie	1.48±.80	Not At All
Toontastic	1.34±.68	Not At All
WeVideo	1.37±.69	Not At All
Total Measure	1.38±.66	Not At All

Note: 1.00-1.49 Not At All 1.50-2.49 Low Level 2.50-3.49 Medium Level 3.50-4.00 High Level

Table 10 shows the level of integration of the secondary school teachers on the Web 2.0 tools in classroom instruction in terms of digital storytelling tools. The findings demonstrated that the level of integration of digital storytelling tools in classroom instruction among secondary school teachers is very low. The mean score for the total measure is 1.38±.66, which indicates that the teachers do not integrate these tools into their teaching practices.

This discovery is consistent with earlier studies that have found that teachers have limited knowledge and skills in using digital storytelling tools in the classroom (McKee & McKee, 2016; Wang & Li, 2011). This may be due to the lack of training opportunities and resources provided to teachers to support their integration of digital storytelling tools in classroom instruction.

Digital storytelling is an effective pedagogical approach that enhances students' creativity, critical thinking, and digital literacy skills (Robin, 2006; Sadik, 2008). Therefore, teachers need to acquire the required expertise and understanding to effectively integrate digital storytelling tools into their teaching practices.

Overall, the results suggested the need for professional development programs that focus on building teachers' capacity to effectively integrate digital storytelling tools in classroom instruction. This can be achieved through training sessions, workshops, and online courses that provide teachers with hands-on experience in using digital storytelling tools and strategies.

Table 11. *Level of Integration of the Secondary School Teachers on the Web 2.0 Tools in Classroom Instruction in Terms of Video Sharing Tools*

I integrate the following Video Sharing tools/applications with my students	*Mean ± SD*	*Description*
YouTube	2.97±.80	Medium Level
Facebook Watch	2.18±1.10	Low Level
Vimeo	1.51±.84	Low Level
Netflix	1.63±.87	Low Level
Flickr	1.46±.80	Not At All
Total Measure	1.95±.69	Low Level

Note: 1.00-1.49 Not At All 1.50-2.49 Low Level 2.50-3.49 Medium Level 3.50-4.00 High Level

Table 11 presents the level of integration of the secondary school teachers on the Web 2.0 tools in classroom instruction in terms of video sharing tools. The mean scores and standard deviations are presented for each tool, along with the corresponding level of integration. The outcomes revealed that the most commonly integrated video-sharing tool/application by secondary school teachers in their classroom instruction is YouTube, with a mean of 2.97±.80 indicating a medium level of integration. On the other hand, the other video-sharing tools/applications such as Facebook Watch, Vimeo, Netflix, and Flickr have a mean ranging from 1.46 to 2.18, indicating low level to no integration at all.

The high level of integration of YouTube may be attributed to its vast collection of educational videos and resources that are readily available for teachers to use in their instruction. YouTube has become a valuable tool for delivering instruction and supplementing classroom activities. Videos can be used by teachers to provide visual aids, engage students, and present complex concepts in a more digestible format.

It is interesting to note that Facebook Watch, which is also a popular video-sharing platform, has a lower level of integration than YouTube. This could be due to Facebook Watch is primarily used for entertainment purposes and may not be seen as an appropriate tool for educational purposes.

Overall, the level of integration of video-sharing tools in secondary school classrooms is still relatively low, with a total measure of 1.95±.69 indicating a low level of integration. This suggested that persistence has a lot of potentials for teachers to explore the use of video-sharing tools in their classroom instruction to enhance the learning experience of their students.

Table 12. *Level of Integration of the Secondary School Teachers on the Web 2.0 Tools in Classroom Instruction in Terms of Social Networking Tools*

I integrate the following Social Networking tools/applications with my students	*Mean ± SD*	*Description*
Facebook	2.96±1.04	Medium Level
Twitter	1.61±.91	Low Level
Instagram	1.57±.87	Low Level
Total Measure	2.05±.75	Low Level

Note: 1.00-1.49 Not At All 1.50-2.49 Low Level 2.50-3.49 Medium Level 3.50-4.00 High Level

Table 12 presents the results regarding the level of integration of secondary school teachers on Web 2.0 tools in classroom instruction in terms of social networking tools. The mean scores for the integration of Facebook, Twitter, and Instagram were calculated to determine the level of integration of each tool. The results on the level of integration of the secondary school teachers on Web 2.0 tools in classroom instruction show that the use of social networking tools is low compared to other tools. The mean score for social networking tools was 2.05±.75, which indicates a low level of integration. Among the social networking tools, Facebook was the most frequently used tool, with a mean score of 2.96±1.04, indicating a medium level of integration.

On the other hand, the level of integration of video-sharing tools was also low, with a total measure of 1.95±.69. Among the video-sharing tools, YouTube was the most widely employed tool, with a mean score of 2.97±.80, indicating a medium level of integration. In terms of digital storytelling tools, the level of integration was very low, with a total measure of 1.38±.66. The results indicated that secondary school teachers have not fully integrated digital storytelling tools in their classroom instruction. None of the digital storytelling tools received a mean score above 1.5, indicating that they were not used at all.

Finally, the level of integration of learning management systems (LMS) in classroom instruction was also low, with a total measure of 1.60±.70. Among the LMS tools, Google Classroom was the most commonly used tool, with a mean score of 2.00±1.02, indicating a low level of integration.

In conclusion, the results suggested that secondary school teachers have not fully integrated Web 2.0 tools in their classroom instruction. While some tools, such as YouTube and Facebook, were being used to a medium level, other tools, such as digital storytelling and LMS tools, were not being used at all or to a very low level. Teachers may need to receive additional training and support to successfully incorporate these technologies into their teaching in the classroom.

Table 13. *Level of Integration of the Secondary School Teachers on the Web 2.0 Tools in Classroom Instruction in Terms of Blog Tools*

I integrate the following Blog tools/applications with my students	*Mean ± SD*	*Description*
Edublog	1.20±.47	Medium Level
LinkedIn	1.44±.75	Low Level
Yugatech	1.25±.50	Low Level
WordPress	1.64±1.03	Low Level
Weebly	1.42±.72	Not At All
Total Measure	1.39±.58	Low Level

Note: 1.00-1.49 Not At All 1.50-2.49 Low Level 2.50-3.49 Medium Level 3.50-4.00 High Level

Table 13 showed the level of integration of the secondary school teachers on the Web 2.0 tools in classroom instruction in terms of Blog tools. The mean and standard deviation of the responses are presented. The tools listed in the table are Edublog, LinkedIn, Yugatech, WordPress, and Weebly.

The results showed that the integration of blog tools/applications by secondary school teachers in their classroom instruction is not prevalent, with a total measure of 1.39±.58, which indicates "not at all." Among the tools listed, WordPress was the most integrated tool, with a mean score of 1.64±1.03, indicating a low level of integration. Edublog, Linkedln, and Yugatech have mean scores below 1.5, indicating that they are not integrated at all.

The low level of integration of blog tools/applications in classroom instruction may be due to several factors, including the lack of familiarity of teachers with these tools, the lack of training on how to use these tools, and the perceived difficulty in integrating these tools into the curriculum. Furthermore, blogs may not be considered as a primary teaching tool, but rather as a supplement to classroom instruction.

However, it is crucial to note that blogs can be a useful tool for enhancing student engagement, promoting critical thinking and collaboration, and providing students with a platform to express their opinions and creativity. Therefore, it may be beneficial for secondary school teachers to explore the use of blog tools/applications and consider integrating them into their classroom instruction.

Proper training and support should also be provided to teachers to ensure that they are comfortable and confident in using these tools effectively.

Table 14. *Level of Integration of the Secondary School Teachers on the Web 2.0 Tools in Classroom Instruction in Terms of Instant Messaging Tools*

I integrate the following Instant Messaging tools/applications with my students	*Mean ± SD*	*Description*
Facebook Messenger	3.56±.54	High Level
WhatsApp	1.46±.86	Not At All
G-mail	2.84±.90	Medium Level
Cellphone Text Messaging	2.83±1.04	Medium Level
Skype	1.44±.81	Not At All
Total Measure	2.42±.55	Low Level

Note: 1.00-1.49 Not At All 1.50-2.49 Low Level 2.50-3.49 Medium Level 3.50-4.00 High Level

Table 14 showed the level of integration of secondary school teachers on instant messaging tools in classroom instruction. The results of the Level of Integration of the Secondary School Teachers on the Web 2.0 Tools in Classroom Instruction in terms of Instant Messaging Tools showed that Facebook Messenger was highly integrated with a mean score of 3.56 ± 0.54. This suggested that teachers were using this tool frequently for classroom communication and collaboration with their students. G-mail and Cellphone Text Messaging are also moderately integrated with mean scores of 2.84 ± 0.90 and 2.83 ± 1.04, respectively. This implied that these tools were also being used, albeit to a lesser degree than Facebook Messenger.

On the other hand, WhatsApp and Skype were found to have low integration levels with mean scores of 1.46 ± 0.86 and 1.44 ± 0.81, respectively. This may be due to several factors, such as limited functionality for classroom use or lack of familiarity with the tool.

Overall, the Total Measure for Instant Messaging Tools was 2.42 ± 0.55, which indicates a low level of integration in the classroom. While Facebook Messenger, G-mail, and Cellphone Text Messaging are being used by some teachers, there is still room for improvement in terms of integrating instant messaging tools for classroom instruction. It is important to note that proper guidance and regulation should be observed when using instant messaging tools to ensure that they are used safely and productively for students.

Table 15. *Consolidated Findings of the Level of Integration of Secondary School Teachers on the Web 2.0 Tools in Classroom Instruction*

Indicators	*Mean ± SD*	*Description*
I integrate the LMS in the classroom with my students.	1.60±.70	Low Level
I integrate Digital Story Telling tools/applications with my students.	1.38±.66	Not At All
I integrate Video Sharing tools/applications with my students.	1.95±.69	Low Level
I integrate Social Networking tools/applications with my students.	2.05±.75	Low Level
I integrate Blog tools/applications with my students.	1.39±.58	Not At All
I integrate Instant Messaging tools/applications with my students.	2.42±.55	Low Level
Total Measure	1.80±.58	Low Level

Note: 1.00-1.49 Not At All 1.50-2.49 Low Level 2.50-3.49 Medium Level 3.50-4.00 High Level

Table 15 shows the consolidated findings of the level of Web 2.0 tools integration of the secondary school teachers in classroom instruction. The consolidated findings of the level of integration of secondary school teachers on the Web 2.0 tools in classroom instruction showed a low level of integration overall, with a total measure of 1.80±.58, which indicates that teachers were not fully utilizing Web 2.0 tools in their classroom instruction.

The lowest level of integration was seen in the use of digital storytelling tools/applications and blog tools/applications, with mean scores of 1.38±.66 and 1.39±.58, respectively. This suggested that teachers were not taking advantage of the storytelling potential of digital media, nor were they utilizing blogging platforms as a means of encouraging critical thinking and self-reflection among their students.

The integration of video-sharing tools/applications also showed a low level of integration with a mean score of 1.95±.69. Despite the popularity of video-based platforms such as YouTube and Vimeo, teachers were not incorporating these tools into their instruction to enhance learning.

On the other hand, the integration of social networking tools/applications shows a slightly higher mean score of 2.05±.75, indicating a low level of integration. This suggested that some teachers were using social media platforms such as Facebook, Twitter, and Instagram in their classroom instruction, but not to their fullest potential.

Instant messaging tools/applications usage also showed a low level of integration, with a mean score of 2.42±.55. While Facebook Messenger and G-mail were being used at a medium level and were integrated into the classroom, other messaging platforms such as WhatsApp and Skype are not being utilized.

The integration of learning management systems (LMS) showed the highest mean score among all Web 2.0 tools, with a mean score of 1.60±.70, indicating a low level of integration. This implied that teachers were utilizing LMS such as Moodle, My.eskwela, Edmodo,

Quipper, Google Classroom, and Zoom to manage their students' learning and track their progress, but there is still a long way to go before these tools are fully integrated into classroom instruction.

In conclusion, these findings suggested that secondary school teachers have yet to fully embrace the potential of Web 2.0 tools in their classroom instruction. Further training and support could be required to help teachers integrate these tools effectively and improve student learning outcomes. This finding also is following previous findings in the study of (Fathimath et al. 2016, as cited in Choo et al., 2020) which conclude a low level of Web 2.0 integration in education.

Problem 3: Is there a significant relationship between the teachers' level of self-efficacy in using Web 2.0 tools and their level of integration of Web 2.0 tools in classroom instructions?

Table 16 presented the results of a multiple regression analysis examining the relationship between the level of integration of Web 2.0 tools in classroom instruction by teachers' level of self-efficacy. The findings revealed that Digital Story (β = .522, t = 3.195, p = .002), Video Sharing (β = -.755, t = -3.555, p = .001), and Blog (β = .306, t = 2.095, p = .039) are significant predictors of the level of integration of Web 2.0 tools in classroom instruction. This suggested that teachers who have higher levels of self-efficacy for using these specific Web 2.0 tools are more likely to integrate them into their classroom instruction.

Table 16. *Multiple Regression of Relating Level of Integration of Web 2.0 Tools in Classroom Instructions by Teachers' Level of Self-Efficacy*

Predictor	*Unstandardized Coefficient*		*Standardized Coefficient*	*t-value*	*p-value*	*Remark*
	B	*S.E. (B)*				
(Constant)	2.368	.476	--	4.973**	.000	Significant
Learning Management	.019	.142	.021	.137	.892	Not significant
Digital Story	.511	.160	.522	3.195**	.002	Significant
Video Sharing	-1.001	.282	-.755	-3.555**	.001	Significant
Social Networking	.157	.183	1.23	.859	.393	Not significant
Blog	.241	.115	.306	2.095*	.039	Significant
Instant Messaging	-.049	.207	-.037	-.238	.812	Not significant
*Note: **p<.01*		**p<.05*	*R^2=.167*	*ANOVA for Regression $F_{(6,96)}$=3.216***		

On the other hand, Learning Management (β = .021, t = .137, p = .892), Social Networking (β = 1.23, t = .859, p = .393), and Instant Messaging (β = -.037, t = -.238, p = .812) were not significant predictors of the level of integration of Web 2.0 tools in classroom instruction.

The R-squared value of .167 indicated that the predictor variables explain 16.7% of the variance in the level of integration of Web 2.0 tools in classroom instruction. The ANOVA for regression showed that the regression model is significant (F(6,96) = 3.216, p = .007), suggesting that the predictor variables as a whole were significantly related to the level of integration of Web 2.0 tools in classroom instruction. Overall, the results suggested that teachers' level of self-efficacy for using specific Web 2.0 tools was related to their level of integration of these tools in classroom instruction. Specifically, teachers who have higher levels of self-efficacy for using Digital Stories, Video Sharing, and Blogs are more likely to integrate these tools into their instruction. This information may be useful for teacher training programs to focus on building teachers' self-efficacy for using these specific Web 2.0 tools in their instruction.

The multiple regression analysis aimed to determine the relationship between the level of integration of Web 2.0 tools in classroom instruction by teachers and their level of self-efficacy. The results of the analysis were presented in the table above.

The analysis revealed that three of the six predictors had a significant relationship with the level of integration of Web 2.0 tools in classroom instruction. The predictor with the highest standardized coefficient was the digital story, with a value of .522. This suggests that teachers with a higher level of self-efficacy in using digital story tools are more likely to integrate these tools into their classroom instruction. The predictor with the second-highest standardized coefficient was the blog, with a value of .306. This indicates that teachers with a higher level of self-efficacy in using blog tools are more likely to integrate these tools into their classroom instruction. The predictor with the third-highest standardized coefficient was video sharing, with a value of -.755. This suggests that teachers with a lower level of self-efficacy in using video-sharing tools are less likely to integrate these tools into their classroom instruction.

The remaining predictors (learning management, social networking, and instant messaging) did not have a significant relationship with the level of integration of Web 2.0 tools in classroom instruction.

Overall, the multiple regression analysis suggests that teachers' level of self-efficacy plays a significant role in their integration of Web 2.0 tools in classroom instruction, particularly in the areas of digital story and blog tools. These findings have potential effects on educator development programs, which could focus on building teachers' self-efficacy in using these tools to promote more widespread integration into the curriculum.

Conclusion

After having analyzed the gathered significant data, the researchers concluded that the level of self-efficacy of secondary school teachers on the use of Web 2.0 tools in classroom instructions indicates an overall agreement and teachers have positive perceptions

and confidence in using Web 2.0 tools. The level of integration of secondary school teachers on Web 2.0 tools also in classroom instruction indicates an overall low level which means that teachers rarely integrate Web 2.0 tools in their classroom instruction. As for the teachers' level of self-efficacy for using specific Web 2.0 tools, it is related to their level of integration of these tools in classroom instruction and the self-confidence of teachers is one of the factors that determines whether they will incorporate these tools into their classroom activities.

Thus, the researchers concluded that this study addressed the gap in the field of Web 2.0 integration at the secondary school level and the self-efficacy level of teachers in Web 2.0 tools integration. Findings revealed that teachers agreed on being confident to use Web 2.0 tools in teaching, but the integration of these tools is low and could be further enhanced. Concerning with the rare use of Web 2.0 tools in classroom instructions indicates that several factors were involved.

Based on the results of the study on the teachers' level of self-efficacy on web 2.0 tools integration and teachers' level of integration of web 2.0 tools, several recommendations can be made to improve the integration of these tools in classroom instruction: Professional development programs ought to be done to provide training and support for teachers on the use of Web 2.0 tools. These programs can include workshops, online courses, and coaching sessions to help teachers develop the necessary skills and knowledge in order to incorporate these tools into their teaching.

Teachers should be encouraged to collaborate and share their experiences using Web 2.0 tools with best practices. This can be done through professional learning communities where teachers can share their ideas and experiences in integrating Web 2.0 tools in classroom instruction.

School administrators should provide the necessary resources and support for teachers to effectively integrate Web 2.0 tools in their teaching. This includes providing access to the necessary technology and software, as well as providing support for teachers who may need assistance in integrating these resources into their instruction.

Teachers should be allowed to experiment with different Web 2.0 tools and incorporate them into their teaching in a way that best suits their teaching style and the needs of their students. This can help teachers become more confident in using these tools and finding new and innovative ways to engage their students in learning.

Further research can be conducted to explore the factors that influence teachers' self-efficacy and level of integration of Web 2.0 tools in classroom instruction. This can help identify additional strategies and interventions that can be implemented to support teachers in effectively integrating these tools into their teaching.

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