Investigating Teachers' Perceptions of Web 2.0 Technology Integration

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الملخص

تهدف هذه الدراسة إلى التحري عن آراء الأساتذة حول ما يعرف بالتدريس عن طريق تكنولوجيا الواب 2.0 ، ومعرفة مدى إلمامهم ووعيهم بنجاعتها في تحسين تعليم اللغة الانجليزية ، فضلا عن بحث المعوقات التي تحول دون دمج هذه التكنولوجيا الحديثة في التعليم. وتحقيقا لهذا الفرض تم اعتماد المنهج الكمي في صورة الاستمارة لجمع المعطيات ، وأخذت عينة مكونة من 26 استاذا في قسم اللغة والأدب الانجليزي بجامعة محمد لمين دباغين سطيف 02 ، وقد أظهرت نتائج الدراسة أن معظم الأساتذة على دراية بتكنولوجيا الواب 2.0 ، وعلى فعاليتها في تحسين التعليم ، حيث أن أغلب الآراء حولها كانت ايجابية ، لكن معظمهم لم يتمكن من استخدامها بسبب عدة عوامل على رأسها نقص الخبرة والمعرفة والتكوين في هذا المجال. إلا انهم أبدوا بالمقابل استعدادهم في الأخذ بها شريطة القيام بتكوين خاص فيها. وقد تكون هذه الدراسة احدى السبل في تحقيق ذلك ، لامر الذي سيساعد على تطوير استخدام تكنولوجيا الواب 2.0 في التعليم.

الكلمات المفاتيح: دمج التكنولوجيا ، تكنولوجيا الواب 2.0 ، دمج الواب ، 2.0 اراء الاساتذة ، التدريس في القسم ، التطبيق في القسم

Résumé

L'étude présente vise à étudier les perceptions des enseignants à l'égard de l'intégration du web 2.0 dans leurs classes d'ALE, et les obstacles qui empêchent ces enseignants d'utiliser le web 2.0 dans leurs pratiques de classes. En s'appuyant sur une approche quantitative, un questionnaire a été choisi pour recueillir les données de cette étude. La collecte des données a été assurée par la participation de vingt-six enseignants au Département de la Langue et Littérature anglaise. L'analyse des réponses nous a permis de constater que la plus part de enseignants sont familiers avec la technologie du web 2.0, et qu'ils sont conscients de son efficacité dans l'enseignement de la langue étrangère (L'anglais dans ce cas). Pour ce qui est de l'intégration de cet outil, les enseignants ont révélé qu'ils sont incapables de faire usage de cette technologie en raison de plusieurs facteurs, notamment le manque de l'expérience et de formations dans ce domaine. Néanmoins, les participants ont exprimé leur disposition de faire des formations et d'utiliser cette technologie i des opportunités se présentent. Cette étude, qui contribuera à développer l'utilisation de la technologie Web 2.0 dans l'enseignement, peut être l'une des façons d'y parvenir.

Mots clés : L'intégration de la technologie, la technologie Web 2.0, les perceptions des enseignants, intégration web 2.0, l'enseignement en classe, les pratiques en classe.

Summary

The current study investigated teachers' perceptions of integrating web 2.0 technologies in their EFL classrooms, and the factors hampering its implementation. To this end, the research used a quantitative approach to collect data through the questionnaire. The study sample comprised of 26 teachers at the English Language and Literature Department at Mohamed Lamine Debbaguine University, Setif 2. The results revealed that most teachers know about web 2.0 technologies and are aware of their effectiveness in promoting education. More importantly, their attitudes were highly positive. Notwithstanding, most of these teachers have not integrated any of the web 2.0 tools before due to certain factors. On top of these impediments is the lack of technical knowledge and professional development. Accordingly, teachers showed readiness to integrate web 2.0 in their classes after receiving training on how to successfully accomplish this. The outcomes of the study are estimated to help teachers to enhance the use of web 2.0 technologies in their teaching and learning practices.

Keywords: Technology integration, web 2.0 technology, teachers' perceptions, web 2.0 integration, classroom instruction, classroom practices.

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Introduction

The need for technology integration is growing everyday as it is an invaluable tool for successful teaching. Recently, it has become a central topic of research in educational technology by many researchers (eg, wang[1]; Earle[2]; Ertmer[3]; Brtlett & jones[4]; Kotrlik & Redmann[5]; Almethlafi & Almeqdadi[6]; Santana[7]; Kopcha[8]. In fact, Technology integration is a tool that improves educators' professional productivity and promotes students learning (Hernández-Ramos[9]).

Technology is gaining an important status and playing an indispensable role in everyday lives and education. It has changed astonishingly the way we work, live, and learn. At the top priority list of most developing countries should be improving education quality through the use of Educational Technology (ET) as any country's development is juxtaposed against the extent of technology use in its vital sectors namely education. Like any developing country, Algeria is witnessing a digital revolution[10]. It has launched the ICT program in the educational arena in the 2000s to cope with the demands of globalization, technological advancements, and the work market. The Ministry of education declared all schools equipped with computers in 2005. Unfortunately, these computers are not yet used to deliver knowledge and information, but rather to teach computer skills to students; thus, making ICT incorporation in the Algerian education is jejune and embryonic. When it comes to higher education, to the best of our knowledge, most universities are equipped with computer multimedia labs with internet access. Still, these labs not only do they have a limited number of seats, which is estimated around 25 seat, which make teachers use them alternately, but also they are used to teach listening-based subjects such as Oral Expression and Phonetics only. That is to say, ICT use in higher education is not curricular-based but a teacher's choice. This implies that computer integration is not structurally part of the assigned syllabus, but it is left to every teacher's instructional preferences. Obviously, the situation holds true for web 2.0 technology which is not integrated in teaching due to given factors which this study aims to explore.

One development in ICTs that has recently achieved prominence and focus is Web 2.0 and its integration in education. Web 2.0 has been one of the main topics of research and discussion in professional journals and conferences in educational technology[11]. Though web 2.0 tools are widely used by the so called "digital native"* students in their everyday lives[12], most teachers lack awareness with regards to their existence or benefits in promoting learning[13]. It is noteworthy that the term "digital Natives" describes students who were born in an era technological development enabling them to skillfully use the different technological tools

[1] Wang, L. (2005). The advantages of using technology in second language education. *T.H.E. Journal, 32* (10), 1-6.

[2] Earle, R.S. (2002). The integration of instructional technology into public education: Promises and challenges. *ET Magazine, 42* (1), 5-13.

[3] Ertmer, P. A. (2005). Teacher pedagogical beliefs: the final frontier in our quest for technology integration? *Educational Technology Research and Development, 53* (4), 25e39

[4] Bartlett, J. & Jones, S. (2009). Factors Impacting Technology Integration in the Teaching and Learning Process: Application for Career and Technical Education. In I. Gibson, R. Weber, K.

[5] Kotrlik, J. W., & Redmann, R. H. (2009). A trend study: Technology adoption in the teaching–learning process by secondary agriscience teachers–2002–2007. *Journal of Agricultural Education, 50* (2), 62 74. doi: 10.5032/jae.2009.02062.

[6] Almekhlafi, A. G., & Almeqdadi, F. A. (2010). Teachers' perceptions of technology integration in the United Arab Emirates school classrooms. *Journal of Educational Technology & Society, 13* (1), 165-175.

[7] Santana, J. (2011, January 25). *Panda security insight blog*. Retrieved February 28, 2011, from European commission suspends CO2 credit trading due to cyberattack: http://www.pandainsight.com/en/

[8] Kopcha, T.J. (2012). Teachers' perceptions of the barriers to technology integration and practices with technology under situated professional development. *Computers & Education, 59* (4), 1109-1121.

[9] Hernández-Ramos, P. (2005, Fall). If not here, where? Understanding teachers' use of technology in Silicon Valley Schools. *Journal of Research on Technology in Education, 38* (1), 39-64.

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[11] An, Y.J. & Williams, K. (2010). Teaching with Web 2.0 Technologies: Benefits, Barriers and Lessons Learned. *International Journal of Instructional Technology and Distance Learning, 7* (3): 41-48.

[12] Prensky, M. (2001). Digital natives, digital immigrants: Part 1. *On The Horizon 9* (5), 1-6.

[13] An, Y.J. & Williams, K. (2010). Teaching with Web 2.0 Technologies: Benefits, Barriers and Lessons Learned. *International Journal of Instructional Technology and Distance Learning, 7* (3): 41-48.

particularly the internet. A plethora of literature discussed the potential of web 2.0 in transforming education (Alexander[1]; Bonk[2], Richardson[3]).

Over decades, technology has been the focus of many researchers globally as it plays an important role in shaping any society's development in general, and education in particular. By the same token, educators are constantly concerned about how to effectively integrate technology into the classroom to boost learning. In order to cope with the radical changes brought about by technology, and fulfill their "digital" learners' needs, teachers need to implement different technological tools into their classrooms. However, technology integration, particularly web 2.0 tools, differs because of multiple factors primarily teachers' extent of awareness and perceptions about its integration. The main cause that led the researcher to tackle this issue of Web 2.0 technologies' integration is to explore whether Algerian University teachers are aware of the Web 2.0 technology and the affordances it provides for education, and to thoroughly canvass their perceptions and attitudes towards Web 2.0 integration in their classrooms. Hence, the purpose is to spread and heighten awareness amongst teachers about the myriad of Web 2.0 tools available in the (IT) world alongside the potentials they offer. Additionally, the researcher's objective is to encourage teachers to harness Web 2.0 benefits in their teaching practices. To meet this end, this study addresses the following questions:

1. To what extent are teachers aware of the existence, use and effectiveness of Web 2.0 technology in the classroom?

2. How do teachers perceive ICT and Web 2.0 technology integration in the context of the classroom?

3. What are the barriers that impede Web 2.0 technology integration?

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[1] Alexander, B. (2006). A new way of innovation for teaching and learning. *Educause Review*, 41(2), 32ﬂ44.

[2] Bonk, C.J. (200). *The World is Open: How Web Technology is Revolutionizing Education*. San Francisco, CA: Jossey-Bass.

[3] Richardson, W. (2009). *Blogs, wikis, podcasts, and other powerful web tools for classrooms* (2nd Ed.), Thousand Oaks: Corwin.

Research Hypothesis

If higher education teachers are fully and well aware of the potentials of Web 2.0 technologies in enhancing learning and adopt positive attitudes towards these tools' integration in the classroom, they will create more effective and rewarding learning environments.

1. Literature Review

Technology use was found to affect students' achievement and increase their motivation to be more engaged in learning activities; this made students more active and interested to study according to Sosin et al[4]. On their part, teachers believe that technology enhances their communication with students as it reduced the teaching pressure caused by the subject material preparation.

Web 2.0, also named the read/write Web[5], "Social Software", Social Web, and Social networking"[6], is a term initially coined by DiNucci as far back as1999, and was popularized by Tim O'Rellly in 2005[7]. According to Grosseck,[8] Web 2.0 "refers to the social use of the Web which allows people to collaborate, to get actively involved in creating content, to generate knowledge, and to share information online". (p.478). In fact, Web 2.0 technology is receiving a growing interest in all educational sectors as means of facilitating the transformation of learning[9]. Though web 2.0 was not designed for the sake of education, it has many

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[4] Sosin, k.; Blecha, b. j.; Agawal, r.; Bartlett, r. l.; Daniel, j. i. (2004). "Efficiency in the Use of Technology in Economic Education: Some Preliminary Results". *American Economic Review*. May 2004 (Papers and Proceedings), pp. 253-258.

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[7] Graham, P. (2005). Web 2.0. Retrieved from <http://www.paulgraham.com/web20.html>

[8] Grosseck, G. (2009). 'To use or not to use Web 2.0 in higher education', *Procedia Social and Behavioural Sciences,* World Conference on Educational Sciences, Vol.1, pp. 478-482.

[9] Rahimi, E., Berg, J., & Veen, W. (2014a). A learning model for enhancing the student's control in educational process using Web 2.0 personal learning environments. *British Journal of Educational Technology*, 780-792.

affordances which make it useful and effective in teaching and learning settings. This is true because they are strongly rooted in the pedagogical principles of Constructivism[1]. It is noteworthy that Web 2.0, or the second generation of the web, is considered far more useful in the teaching/learning process compared to its predecessor web 1.0 which is known as the first generation. While web 1.0 was based on reading only in which internet users just read information online on different websites much like reading a book[2], web 2.0 is based on reading and writing. That is to say, people can actively create content and share it[3]. It is worthy to mention that "digital natives"[4] learners are themselves the creators of knowledge and material rather than passive consumers or readers[5]. Learners are not passive receivers of information from teachers, but are rather active contributing parts in the learning process, working together in a social manner for the creation of knowledge according to Adcock & Bolick [6]and An & Williams[7]. Grosseck[8]argued that among a realm of web 2.0 technologies and services,

weblogs, microblogs, wikis, RSS, folksonomies, social bookmarking, media sharing, and social networking sites are specifically contributing in higher education. These applications allow people from different locations to publish content and share it[9]. Adcock & Bolick[10], further argued that web 2.0 tools like Wikis promote collaboration and higher order thinking skills which is a cornerstone in learner-centered pedagogy that web 2.0 fosters. Sharma[11] highlighted six major characteristics of 2.0 being: 1) User-centered design, 2) crowd-sourcing 3) collaboration, 4) power decentralization, 5) dynamic content, and 6) rich user experience.

As Lin et al.,[12]put it, "Web 2.0 has developed to become a user-centric environment that is social, personalized, interactive and participatory" (p. 2871). In the same vein, (An & Williams[13] reported that the major benefits of Web 2.0 technologies in teaching include: interaction, communication and collaboration, ease of use and flexibility, writing and technology skills. Thus, Web 2.0 fosters and amplifies interactive learning environments for students in which they can create knowledge, produce, edit, and evaluate[14]. Participation is another feature that is supported by web 2.0 as it encourages not only learners but also teachers, subject matter experts, professionals, etc. to socially interact, collaborate, and share ideas in

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[1] Ferdig, R. (2007). Examining social software in teacher education. *Journal of Technology*

and Teacher Education, *15(1)*, 5─10.

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[3] Thompson, J. (2007). Is education 1.0 ready for web 2.0 students? *Innovate, 3*(4).

Usluel, Y.K. & Mazman, S.G. (2009)Adoption of web 2.0 tools in distance education:*World*

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[9] Thompson, J. (2007). Is education 1.0 ready for web 2.0 students? *Innovate, 3*(4).

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[12] Lin, M. H., Lin, C. Y., & Hsu, P. Y. (2011). The unrealistic claims for the effects of classroom blogging on English as a second language, students' writing performance. *British Journal of Educational Technology, 42(6)*, E148–E151.

[13] An, Y.J. & Williams, K. (2010). Teaching with Web 2.0 Technologies: Benefits, Barriers and Lessons Learned. *International Journal of Instructional Technology and Distance Learning, 7*(3): 41-48.

[14] Richardson, W. (2009). *Blogs, wikis, podcasts, and other powerful web tools for classrooms* (2nd Ed.), Thousand Oaks: Corwin.

plentiful ways (Downes[1]; Alexander[2]; Bonk[3]; Usluel & Mazman[4]). In addition, the Social Web caters for autonomous learning in which learners control and manage their own learning, according to their own needs and interest[5]. Also, features like ubiquitous access, functionality of Web 2.0 have made them attractive for its users as instructional tools[6].

According to An & Williams[7], web 2.0 demands from teachers to reconsider their way of teaching and learning, and urges them to transform their education practices in favour of more learner-enjoying and active learning. Nevertheless, teachers encounter diverse barriers with web 2.0 integration like uneasiness with openness, technical problems, and time. Similarly, Kulakli and Mahony[8] highlighted that barriers of Social Web's integration can be institutional/administrative. This is related to the institutions' policies, ICT restrictions, students' numbers, accessibility, changing demand, not easy to use or user-friendly platforms, and risks. Moreover, student involvement in terms their inequity for accessibility to technology, uncertainty of success with students, difference in skill base, and literacy levels, is another barrier teachers may face. Another impediment in the face of integrating Web 2.0 technology is related to academics or teachers'

adoption with regard to the degree of their involvements, holding different values, lack of knowledge and skills, and time restraints. Bitner & Bitner[9] issued 8 factors preventing teachers from integrating technology into the classroom (fear of change, training in basics, personal use, and training models, learning based, climate, motivation, and support).

2. Participants

The participants were 26 teachers at the English Language and Literature Department at Mohamed lamine Debbaguine University, Setif 2. The majority of teachers were females (17 female teaches, and 9 were male teachers). In terms of their teaching experience, teachers had between 1 and 30 years of experience. As regards availability and access, the participants had a collective access to the limited instructional technology available in the department such as projectors and the language lab. Also, they had little or no professional development or training on using technology for instructional purposes.

3. Data Collection and Research Materials

To answer the above asked questions, the exploratory study used a quantitative approach in the form of a questionnaire. This tool was used to investigate teachers' awareness and perceptions of integrating ICT and Web 2.0 technology into their classrooms along with the obstacles impeding their practices with it.

3.1 The questionnaire

The questionnaire was conducted to elicit the participants' perceptions of integrating technology in the context of real classroom. Osuala[10] recommended that survey research design is most appropriate for studies which center on individuals and their opinions, beliefs, motivation and behavior.

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[1] Downes, S. (2005). E-learning 2.0. In *eLearn magazine. Education and Technology in Perspective.* http://www.elearnmag.org/subpage.cfm?section=articles&article=29-1

[2] Alexander, B. (2006). A new way of innovation for teaching and learning. *Educause Review*, 41(2), 32—44.

[3] Bonk, C.J. (200). *The World is Open: How Web Technology is Revolutionizing Education.* San Francisco, CA: Jossey-Bass.

[4] Usluel, Y.K. & Mazman, S.G. (2009)Adoption of web 2.0 tools in distance education:*World conference on Educational Sciences* 2009.www.sciencedirect.com.

[5] An, Y.J. & Williams, K. (2010). Teaching with Web 2.0 Technologies: Benefits, Barriers and Lessons Learned. *International Journal of Instructional Technology and Distance Learning, 7*(3): 41-48.

[6] Chen, H. L., Cannon, D., Gabrio, J., Leifer, L. T. G. & Bailey, T. (2005). Using wikis and weblogs to support reflective learning in an introductory engineering design course. Paper presented at the American Society for Engineering Education Annual Conference & Exposition, Portland, OR.

[7] An, Y.J. & Williams, K. (2010). Teaching with Web 2.0 Technologies: Benefits, Barriers and Lessons Learned. *International Journal of Instructional Technology and Distance Learning, 7*(3): 41-48.

[8] Kulakli A; Mahony, S. (2014). Knowledge Creation and Sharing with Web 2.0 Tools for Teaching and Learning Roles in So-called University 2.0. Procedia-Social Behav. Sci. 150:648-657.

[9] Bitner, C, J & Bitner, N. (2002). Integrating technology into the classroom: eight keys to success. *Journal of Technology and Teacher Education, 10*, 1.

[10] Osuala, E. C. (2004). *Introduction to Research Methodology.* The Millennium Enugu: Chiston Agency Limited.

The questionnaires were distributed to 40 teachers in the Department of English Language and Literature at Mohammed Lamine Debbaguine-Setif 2- University. However, only 26 teachers returned their questionnaires. The questionnaire was comprised of a number of sections that investigated teachers' perceptions. The first section was about demographic information (age, gender, years of experience, etc). The second section dealt with teachers' competencies in using technology along with their beliefs about its worthiness. The third section discusses the obstacles obstructing teachers from implementing technology into their classrooms. The fourth section attends to the intensives and the teachers' suggestions to better integrate technology in the classroom. Aside from the first section, the questionnaire used a five-point Likert scale ranging from strongly disagree or very low to strongly agree or very high. The likert scale entails that respondents answer within a fixed choice response formats as they are designed to measure attitudes or opinions; also, they measure levels of agreement or disagreement of participants towards a phenomenon. For this end, the five likert scale seemed the most appropriate scale in this study as it caters teachers' perceptions towards web 2.0 integration in teaching. Prior to the distribution of the questionnaire, the participants were explained the purpose of the study, and that their participation will remain anonymous. The participants were given enough time to finish the questionnaire enabling them to return them in time.

4. Data Analysis

To analyze the data obtained from the questionnaire the Statistical Package for Social Sciences (SPSS) was used. The results were compared and contrasted. The views of the participants were also juxtaposed to one another between those holding positive attitudes and those holding negative ones towards technology integration. After that, data of all the other answers was classified under these two categories. The findings were the following:

5. Findings, Analysis, Discussion, and Results

The purpose of this study was to assess teachers' awareness of and attitudes towards web 2.0 technology along with the impediments hampering it integration.

A profile of the respondents to this study concerning age, gender, years of teaching, and the academic degree is highlighted in table 1. Looking at the table, 96.16 % of the teachers hold a BA degree (25 teachers), and one teacher that is 3.84% hold a PHD. In terms of age, about 42.30 % were younger than 30, 30.76% were between 31 and 35, 15. 38% were between 36 and 40, 7. 69 %were between 41 and 45, and 3. 84% were over the age of 45. This reveals that most teachers in the department of English at Mohammed Lamine Debbaghine University are young teachers. As regard gender distribution, 65.38% were females and 34.61% were males. As about the teaching experience, 30.76% have been teaching for less than 4 years, half of them, that is 50 have been teaching for more than 5 years and less than 10 years. About 15.83% have been teaching for more than 10 years, and only one has more than 25 years of teaching.

Table 1 Profile of respondents

Variable	Value	Frequency	Percentage
Gender	Male	09	34.61%
	Female	17	65.38%
Age	Under 25	00	00%
	26-30	11	42.30%
	31-35	08	30.76%
	36-40	04	15.38%
	41-45	02	7.69%
	Over 45	01	3.84%
Acedemic Degree	MA	25	96.16%
	PHD		3.84%
	Prof	00	00%

Concerning whether or not teachers possess and use computers, the results showed that all teachers own computers and have been using them for years ranging between 10 and 20 years. It is noteworthy that no teacher described him/herself as a poor or user or having no ability. Half of the teachers (38.46%) described themselves to be good users, as moderate users, and 11.53% as very good users. Asked whether they integrate computer technology in their teaching, 84.62% of teachers answered favorably.

Research question1

The first research question examined if, and to what extent teachers are aware of the existence of web 2.0 tools and their benefits. Many respondents 80.76% said that are fully aware of the existence and usefulness of web 2.0 tools to support teaching and learning which explain their rare implantation in class. About 19.23% said that they are not at all aware. However, a low extent of practical knowledge about such tools as wikis, blogs, and podcasts was reported. By the same token, teacher's attitudes towards web 2.0 tools and their integration were positive (84.62%). The rest held negative attitudes because of certain barriers they revealed such as the absence of suitable atmosphere of integration. Teachers held positive attitudes about the instructional benefits of integrating technology in the classroom. They strongly agreed that it enhances learning. Many respondents (65.23%) agreed that web 2.0 tools are tools they should use to cope with their students' changing needs. Because they held positive attitudes and they are convinced of web 2.0 tools usefulness in education, about 50 of teachers agreed, and 23.07% strongly agreed that they are ready to manage the educational changes that tools like web 2.0 will bring to teaching. Despite that these results provided some encouragements, they were overshadowed by teachers' true use of web 2.0 tools in their classes in which a big percentage (87.17%) reported slightly or never integrating web 2.0 technologies in their teaching, ranging from blogs to discussion forums to social networking being the highly ranked tool. Social networking tools were the most highly rated of web 2.0 tools (15.38%) contrasted to other tools.

Table 2 Sample Questions of teachers' Perceptions of Web 2.0 technology

Statements	SD	D	A	SA
-I believe web 2.0 are effective and useful	00	00	3.55 96.45	
-Instruction would be more fruitful and Interesting if web 2.0 are used.	00	7.07	53.84	3!
-teachers should use web 2.0 to cope with their students.	3.35	5.40	68.32	2!
I plan to integrate web 2.0 in my instruction In the future	5.65	1.09	75.58	17

Research question 2

Most respondents (96.45%) hold positive attitudes towards web 2.0 technology integration believing in its potential to enhance learning on the whole. Additionally, more than a half thinks that their instruction would be more fruitful and interesting if these tools are used. Around 53.84% also think that students would be more motivated and interested to learn with web 2.0 tools given the fact that they are more flexible and easily accessible. Respondents (68.32%) strongly agreed that they should make use of this new technology to cope with their digital native students. When asked whether or not teachers plan to integrate these tools in their teaching in the future, most respondents (75.58%) answered in favor of this. The remaining respondents were not in favor of integrating web 2.0 tools because they lack motivation and time, they reported.

Research question 3

Teachers' data revealed some impediments to be responsible for the moderate or rather absent incorporation of web 2.0 technology in their classrooms. About 50.92 % and 38.64% agreed and strongly agreed that lack of software skill and technical knowledge of these tools is one major obstacle in the road of integration. In addition,

38.46 % agreed that it is too costly in terms of money, time, and efforts. Other respondents (53%) strongly agreed that web 2.0 is effective only if extensive technology devices and internet resources are available. Second in line of barriers of integration, respondents (50.23%) reported lack of adequate teacher training to be an impediment. More importantly, 80.76% confirmed receiving no training on web 2.0 utilization except one respondent who had received full-day training. Four respondents who said that they received a one-semester course on web 2.0 tools had their MA abroad according to the information they provided as notes by the end of the questionnaire. Accordingly, all respondents (100%) confirmed a need for training in web 2.0 use and integration.

Conclusion

Over the last decades, technology has shaped people's lives enormously resulting in a cultural change in terms of information, knowledge, information, and learning. Likewise, the use of ICTs to support teaching and learning has evolved in line with the IT constant developments giving rise to Web 2.0 technologies. Teachers worldwide use them at a large scale owing to their popularity, functionality, and potentials to improve teaching and learning[1]. In this study, teachers' perceived

awareness, ICT integration, and perceptions about Web 2.0 adoption were investigated. According to the results, most teachers were aware about the existence of these tools as well as their perceived usefulness. Thus, many obstacles hamper their integration of these technologies. Many insights for future research can be taken from this research's findings. For instance, the sample of teachers participating in the study is only in-service teachers. Future studies can shed light on pre-service teachers, or even better draw a comparative study between pre-service and in-service teachers' perceptions and web 2.0 classroom practices.

On this basis, research can focus on how such variables as age, gender, teaching experience, IT literacy level, and the amount of internet use would affect teachers' awareness, attitudes, and in-class practices with web 2.0 technologies. Also, an investigation into the university's or the administration and faculty's policies towards technology integration is worthy. It would be interesting as well to research teacher professional development and IT training programs. While this study dealt with teachers' perceptions, it would be interesting to investigate students' awareness and perceptions of Web 2.0 to support their in-class learning. Another research idea would be comparing teachers' and students' data vis-à-vis Web 2.0 perceptions to see whether or not a gap in understanding exists between the two parties.

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