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Web 2.0 for the invigoration and participation of families and communities

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ABSTRACT

The societies of the 21st century have experienced a technological and societal transformation that calls for the precise collaboration between families and education centers, as well as the inclusion of new professionals to invigorate this cooperation to favor a type of education that is adapted to today's needs. This article presents the more significant results of a research study that tried to determine the ratings manifested by the students in the Social Educator degree of eleven Web 2.0 tools for the educational intervention in the area of invigoration and participation of the family and the community in educational centers. The results show that the social networks and learning environments were the best-rated technological resources for their application in the area of education by the participants of the study. Likewise, the rating was conditioned by factors such as the device used, the degree year or the temporal frequency of internet access.

KEYWORDS: FAMILY INVIGORATION, EDUCATIONAL CENTERS, WEB 2.0, SOCIAL EDUCATOR, HIGHER EDUCATION

1 INTRODUCTION

The main task of the social educator is the socialization of any individual; more specifically, in the education sphere, this becomes the backbone of his/her conduct with minor and youths, for whom the family and community context become a complex coupling that is difficult to address (García, Gomariz, Hernández, & Parra, 2010; Rodríguez, 2011).

As pointed by Lozano, Alcaraz and Colás (2013), the family participation in educational matters and in the teaching of the students benefit their inclusion in education and school dynamics; these facts induce the social educator to promote the participation of the family and community in school environments, as we as to foster actions to invigorate the cooperation of the family – school – community triad among all the agents that intervene in educational centers.

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2 FAMILY AND COMMUNITY INVIGORATION AND PARTICIPATION

As underlined by Cieza (2010, p. 126) "the active recovery, recreation and revitalization of the community is necessary in order to convert them into spaces of social coexistence that allow the citizen to reconquer his/her protagonism (empowerment) in the process of improvement or transformation of his/her social reality".

The educational scenarios are being transformed with the employment of technology (Muñoz & González, 2014), affecting not only the didactic actions in favor of learning as well as the social relations that are taking place in the classroom; therefore, the co-existence of educational institutions are becoming conditioned (García et al., 2010).

At the same time, the families and communities consume technological resources in daily life, as elements for communication and social interaction; the Web 2.0 tools become, then, essential instruments for participation in society, as well as elements for invigorating the family's and community's intervention and cooperation in the education sphere. Social educators, in their role as education agents, cannot be alienated from the possibilities that these technological resources bring to the table for collaboration between families, the community and the school in the search for high-quality education for minors and youths.

3 METHODOLOGY AND DESIGN

The general objective set for this research was to determine the ratings as given by students of the Social Educator degree from the Pablo Olavide University (Seville, Spain) of a set of eleven Web 2.0 tools for the field of intervention in the invigoration and participation of families and communities.

Consequently, the study variables that were used were 11 in total, grouped into a single dimension (rating), taking into account the set of Web 2.0 tools proposed. These were selected following three criteria: the technological resources that are most used in primary and secondary educational centers; the proposal by Hart (2013) that is found in the Center for Learning & Performance Technologies; and the classification elaborated by Castaño, Maiz, Palacio & Villaroel (2008), McGee & Díaz (2007) and Muñoz & González (2014) for categorizing these resources taking into account their functionality in and applicability to the educational system.

A quantitative method was used for this research work, with an *ex post* facto study method, so that the objective will be reached *a posteriori* as per Mateo (2012).

The population used for this research came from the students that were enrolled in the four academic years of the Social Educator degree at the Pablo Olavide University (Seville, Spain), that had a total of 227 individuals enrolled in the 2012/2013 academic year (the study period of the research). More specifically, the sample was composed by 188 individuals, from which 82.9% were female, and 17.1% male, with the average age being 22.23.

As for the grouping of the students by their degree year, at the time of the study, 27.7% were on their first year; 26.6% on their second, 24.4% on their third, and 21.3% on the fourth year of the degree. Another one of the variables that described the sample was the type of device that was frequently employed for connecting to the internet. 25.1% used their mobile phones, 68.8% a personal computer (PC), and 6% a tablet.

Lastly, the weekly connection frequency was also measured. 13.6% connected two or three days a week, 33.2% four or five, and 53.3% every day of the week; similarly, when taking into account hourly access per day, we found that 37.2% connected one or two hours, 41.2% between three and four, and 21.6% more than five hours/day.

The gathering of information was performed through the use of a *post hoc* questionnaire, which was specifically designed for this investigation. This questionnaire was divided into two dimensions, the first one related to socio-demographic data, and the second referred to the rating of the Web 2.0 tools in the context of intervention for the invigoration and participation of the family and community. For measuring these dimensions, a Likert scale with five options was employed, with option 1 being very negative, and option 5 very positive.

The validity and reliability of the instrument designed for this study were determined through different processes and analysis methods. For validating the content, a panel of experts was consulted. These were contacted through the "*International Panel of Research in Educational Technology (PI2TE)*" from the EDUTEC association (http://gte2.uib.es/panel). The experts rated the items through the use of a Likert scale, where a score of 1 was the lowest rating, with a score of 5 being the highest. The results, after the application of a central tendency statistical analysis showed a positive score for the clarity, relevancy, sequence and design of the items used in the study, and also showed irrelevancy as for the length of the questionnaire. As for the validity of the construct, which is a more substantial proof as indicated by Hernández, Fernández and Baptista (2006), an exploratory factorial analysis with an extraction method of maximum plausibility and varimax rotation were performed previous to the Kaiser- Meyer y Olkin test (KMO =0,917), Bartlett's sphericity test (p<0,001) denote significance; on the other hand, the resulting factor corresponds to the hypothetical dimension proposed in construct that is being measured, in the first factor, the items that are saturated are those related to rating, explaining 69.8% of the total variance.

To grant the instrument more reliability, an internal consistency focus was used (Morales, 2007), and the result after the application of Cronbach's alpha was 0.961; as for the linkage test of the correlation of each item with the entire scale (coefficient of homogeneity), the values obtained in the 11 items used were close to the value of 1 than to 0, in both the corrected coefficient of homogeneity as well as the Cronbach's alpha value if the item is eliminated from the scale, which gives us acceptable confidence (see Table 1). Lastly, for finding the strength of the unidimensional character of the test (reliability index), an analysis on the ability of discrimination of the elements was performed, applying the Student's t-test (n.s.=0.05) on the means of the groups established. This revealed the high power of discrimination of all the items (significant values -<0.001), which implied that the objects gathered in the

Table 1. Results of the link item-test

Dimension	Item	Mean of the scale if item is eliminated	Variance of the scale if item is eliminated	Corrected homogeneity coefficient	Cronbach's a
Rating of Web 2.0 tools for the intervention in the invigoration and participation of the family and community	1. Rating of the virtual learning environments	571,68	21117,771	0,785	0,994
	2. Rating of the blogs	571,71	21098,046	0,834	0,994
	3. Rating of the social and educational net-works	571,7	21106,925	0,799	0,99
	4. Rating of the video editors	571,67	21107,583	0,825	0,991
	5. Rating of image editors	571,81	21122,091	0,777	0,996
	6. Rating of image search engines	571,71	21109,333	0,777	0,999
	7. Rating of video search engines	571,75	21123,762	0,784	0,994
	8. Rating of text search engines	571,62	21097,034	0,844	0,993
	9. Rating of presentation search engines	571,77	21117,584	0,817	0,995
	10 Rating of the wiki	571,66	21097,023	0,834	0,992
	11. Rating of the forums	571,74	21115,408	0,803	0,994

test comply with the objective set forth for each of the aspects of the dimension.

Taking into account that the data extracted after the implementation of the instrument are quantitative in nature, their study has consisted on descriptive and inferential analysis, taking into account diverse classification criteria such as gender, the degree year, the device used for accessing the internet, weekly and daily frequency of connection; the results are shown in the following section.

4   RESULTS

Of the set of eleven Web 2.0 tools proposed, the students of the Social Education degree from the Pablo Olavide University (Seville, Spain) rate as "indifferent" the following tools (see Figure 1): Image editors ($\bar{x}$= 3.35), video search engines ($\bar{x}$ = 3.39), presentation search engines ($\bar{x}$ = 3.42), image search engines ($\bar{x}$ = 3.44), forums ($\bar{x}$ = 3.46), blogs ($\bar{x}$ = 3.47) and video editors ($\bar{x}$ = 3.49); likewise, they gave more positive ratings to the virtual learning environments and the social and educational networks (both $\bar{x}$ = 3.70), the wiki ($\bar{x}$ = 3.59), and the text search engines ($\bar{x}$ = 3.58), for the educational intervention in the area of invigoration and participation of the family and community.
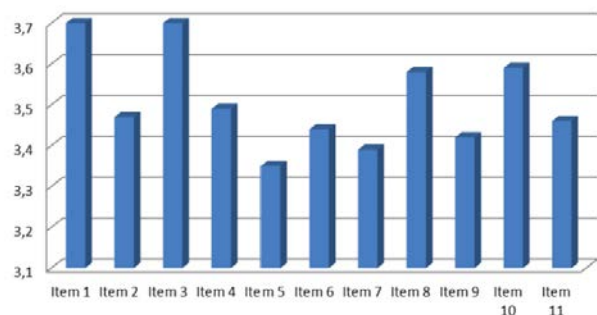

Figure 1. Web 2.0 tools rating

4.1   Rating of Web 2.0 tools as a function of gender

The application of the Student's T-test (n.s.=0.05) as a function of the gender variable in the rating of the eleven Web 2.0 for the educational intervention in the area of invigoration and participation of the family and community did not show statistically significant results.

4.2   Rating of Web 2.0 tools as a function of degree year

Taking into consideration the student's enrollment in the different degree year, an ANOVA (n.s=0.05) was performed. The results showed that there is a statistically significant effect when rating the eleven Web 2.0 tools for the intervention in the invigoration and participation of the family and community and the degree year of the Social Education degree students.

The first-year students gave an almost positive rating to the virtual learning environments. $F(3.185)=9.751$, $p<0.05$, $\eta^2=0.130$ with respect to the third-year students $t(185)=4.88$, $p<0.001$ and the fourth-year students $t(185)=3.24$, $p=0.008$. The comparison with the second-year students did not show any significance in the Bonferroni values. The comparison with respect to the rating of this Web 2.0 tool between the second-

and third-year students gave significant results, with a better assessment by the lower class $t(185)=3.87$, $p=0.001$.

The first year students positively rated the blogs, $F(3.185)=8.160$, $p<0.05$, $\eta^2=0.112$ as opposed to the third year students $t(185)=4.35$, $p<0.001$; and those in their fourth year $t(185)=3.69$, $p=0.002$, while the comparison with the second-year students did not show any significance in the Bonferroni values. On the other hand, the second-year student did show relevant results as compared to those on their third year, with more positive ratings of this Web 2.0 tool $t(185)=2.84$, $p=0.030$.

The students enrolled in the first year positively rated the social and educational networks $F(3.185)=13.823$, $p<0.05$, $\eta^2=0.175$ as compared to the third- $t(185)=5.44$, $p<0.001$ and fourth-year students $t(185)=3.65$, $p=0.002$. Likewise, the second-year students gave an almost positive rating of this Web 2.0 tool with respect to the third-year students $t(185)=5.04$, $p<0.001$ and those in their fourth year $t(185)=3.28$, $p=0.007$.

The comparison taking into account the almost positive rating of the video editors for the intervention in the invigoration and participation of the family and the community of the first-year students as compared to third-year students $F(3,185)=5.826$, $p<0.05$, $\eta^2=0.079$, was more favorable in the lower degree years, $t(185)=3.30$, $p=0.007$; while the multiple comparison with the second and fourth degree years did not show significance in the Bonferroni values. Also, the students enrolled in the second year rated this Web 2.0 better than those in their third year $t(185)=3.24$, $p=0.008$.

The image editors as a Web 2.0 tool were better rated by the students the first-year students $F(3,185)=5.588$, $p<0.05$, $\eta^2=0.079$ than those in their third year $t(185)=3.24$, $p=0.008$, while the comparison with the second and fourth year students did not show significance in the Bonferroni values. On the other hand, the second-year students rated this tool higher than those in their third year $t(185)=3.24$, $p=0.008$; but we cannot claim the same results for the fourth-year students as the values of the error rates analysis were not significant.

The students who belong to the first year gave an almost positive rating to the image search engines $F(3.185)=6.717$, $p<0.05$, $\eta^2=0.094$, with respect to third and fourth years students $t(185)=3.03$, $p=0.016$; $t(185)=2.92$, $p=0.024$, respectively. Likewise, the second-year students gave an almost positive rating of this Web 2.0 tool with respect to third-year $t(185)=3.40$, $p=0.005$ and fourth-year students $t(185)=3.27$, $p=0.008$.

The video search engine Web 2.0 tool was more positively rated by the first-year student sample $F(3,185)=9.184$, $p<0.05$, $\eta^2=0.124$ for the educational intervention in the area of invigoration and participation of the family and community than the third-year students $t(185)=3.52$, $p=0.003$. In the same manner, the second-year students gave a better rating to this Web 2.0 tool than those in their third year $t(185)=4.68$, $p<0.001$ and those in their fourth year $t(185)=3.49$, $p=0.003$.

The students enrolled in the first year positively rated the text search engines $F(3.185)=5.881$, $p<0.05$, $\eta^2=0.083$ as opposed to third-year students $t(185)=3.36$, $p=0.005$ and those in their fourth year $t(185)=3.09$ $p=0.013$. Equivalently, the students from the second year had relevant results when compared to those in their third year, rating this Web 2.0 tool higher $t(185)=2.72$, $p=0.041$.

The first-year students showed a rating close to positive of the presentation search engines $F(3.185)=7.065$, $p<0.05$, $\eta^2=0.098$ with respect to those in their third year $t(185)=3.67$, $p=0.002$. Likewise, the comparison with respect to the rating of this Web

2.0 tool between the second and third year students had significant results, that were better observed in the lower class t(185)=3.94, p=0.001.

The comparison taking into account the almost positive rating of the wiki by the students from the first year as opposed to the third year F(3.185)=6.270, p<0.05, η^2=0.088 was more favorable in the lower classes t(185)=3.32, p=0.006, similar to the fourth year students t(1.856)=2.88, p=0.025. In the meantime, the students enrolled in their second year almost positively rated this Web 2.0 tool as opposed to third and fourth year students t(185)=3.18, p=0.010, t(185)=2.75, p=0.038, respectively).

The forums as a Web 2.0 tool was better rated by the students enrolled in the first year F(3.185)=8.609, p<0.05, η^2=0.177, than those in the third year t(185)=4.00, p=0.001 and those in the fourth year t(185)=3.18, p=0.010 as well. Likewise, the second-year students rated them better than the third- t(185)=3.88, p=0.001 and the fourth-year students t(185)=3.07, p=0.014.

4.3 Rating of Web 2.0 tools as a function of the connection device used

When analyzing the type of device usually employed by the Social Educator degree students from the Pablo Olavide University (Seville, Spain) to connect to the internet, we performed an ANOVA (n.s.=0.05). The results showed that there is a statistically significant effect when rating the eleven Web 2.0 tools for the intervention in the invigoration and participation of the family and the community and the device commonly used by the Social Educator degree students.

The students that used the mobile phone to access the internet gave an almost positive rating of blogs F(2.186)=4.598, p<0.05, η^2=0.045 in relation to the PC t(186)=3.02, p=0.008, while the comparison between the mobile phone and the Tablet did not show notable results in the post hoc tests applied.

The subjects in the sample that had a mobile phone to connect to the internet gave a more positive rating of the image search engines F(2.186)=5.320, p<0.05, η^2=0.051 as compared to the PC in all its forms: desktop, laptop or netbook t(186)=3.00, p=0.009. On the contrary, we cannot verify the same results for tablet devices as the analysis of the error rates were not indicative.

The positive rating of the text search engines was given by the students who regularly employ the mobile phone as the device used to access the Internet F(2.186)=3.594, p<0.05, η^2=0.035 with respect to the PC t(186)=2.68, p=0.024; the Tablet did not show significance in the comparisons.

The students that employ the mobile phone as the device to access the Internet positively rated the wiki F(2.186)=4.963, p<0.05, η^2=0.048 as opposed to PC users t(186)=3.10, p=0.007. The Tablet, as a device, did not have relevant results in multiple comparisons in the post hoc test applied to this Web 2.0 tool.

The rest of the Web 2.0 tools: virtual learning environments, social and educational networks, image editors, video editors and search engines, presentation search engines and forums did not reveal significant differences in their rating for the intervention in the area of invigoration and participation of the family and the community as related to the device used by the individuals in the sample for accessing the internet.

4.4 Rating of Web 2.0 tools as a function of weekly connection frequency

In the same manner, there is a statistically significant effect when rating the eleven Web 2.0 tools for the intervention in the invigoration and participation of the family and community as a function of the weekly connection frequency.

The students that connect to the Internet every day rate the virtual learning environments better F(2.186)=16.701, p<0.05, η^2=0.146, as opposed to those who access it 2 or 3 days a week t(186)=5.03, p<0.001 and those who do it 4 to 5 days a week t(186)=4.12, p<0.001. On the other hand, the comparison between 4 or 5 days and 2 or 3 days did show notable results in the post hoc test applied.

The participating sample that accesses the Internet every day positively rates the blogs F(2.186)=17.343, p<0.05, η^2=0.150 as compared to those who access it 2 or 3 days a week t(186)=4.38, p<0.001 and 4 or 5 days a week t(186)=5.00, p<0.001. The comparison between connecting 4 or 5 days and 2 or 3 days per week did not show any significant results in the rating of this Web 2.0 tool.

The positive rating of the social and educational networks were given by the students that connect to the Internet daily F(2.186)=15.420, p<0.05, η^2=0.136, as opposed to those who connected 2 or 3 times a week t(186)=4.20, p<0.001 and 4 or 5 days a week t(186)=4.65, p<0.001, while the comparison between connecting 4 or 5 days and 2 or 3 days a week did not reveal notable results in the Bonferroni test.

The comparison of the rating of the video editors as shown by connecting to the Internet daily as opposed to 2 or 3 days a week F(2.186)=16.218, p<0.05, η^2=0.142 was favorable to the more frequent type of access, taking into account that the rating value is close to positive, t(186)=4.76, p<0.001 and the contrast between connecting every day and 4 or 5 days favors the first t(186)=4.32, p<0.001. On the contrary, the comparison between 4 or 5 days of access to 2 or 3 days did not show notable results in the post hoc test applied.

The students that access the Internet daily rated the image editors almost positively F(2.186)=18.290, p<0.05, η^2=0.157 as compared to the ones who only connected 2 or 3 days a week t(186)=4.67, p<0.001. Similarly, the ones who connected daily as opposed to 4 or 5 days gave a better rating to this Web 2.0 tool, the first group with respect to the second t(186)=4.99, p<0.001. The comparison between 4 or 5 days as opposed to 2 or 3 days did not show notable results in the post hoc test applied.

The ratings of the image search engines given by participants who connected daily to the Internet were better F(2.186)=19.079, p<0.05, η^2=0.163, as compared to the ones who connected 2 or 3 days a week t(186)=5.27, p<0.001. This was similar to the contrast with Internet access of 4 or 5 days t(186)=4.55, p<0.001. On the other hand, the comparison of 4 or 5 days and 2 or 3 days of connectivity did not show significance in the rating of this Web 2.0 tool.

The participating sample that accessed the Internet every day rated almost positive the video search engines F(2.186)=14.813, p<0.05, η^2=0.131 as compared to those who connected 2 or 3 days a week t(186)=5.18, p<0.001 or 4 or 5 days a week t(186)=3.04, p=0.008. In the same manner, the comparison between 4 or 5 days and 2 or 3 days of Internet connection reveals that the first group provided a better rating than the second group t(186)=2.80, p=0.016.

The student body that connected daily to the Internet, positively rated the text search engines $F(2.186)=19.325$, $p<0.05$, $\eta^2=0.165$ as compared to those who connected 2 or 3 days $t(186)=5.00$, $p<0.001$ and 4 or 5 days a week $t(186)=4.92$, $p<0.001$. The comparison between 4 or 5 days and 2 or 3 days did not reveal notable results in the Bonferroni test.

The students that accessed the Internet daily showed an almost positive rating of the presentation search engines $F(2.186)=17.423$, $p<0.05$, $\eta^2=0.151$, as opposed to those who connected 2 or 3 days a week $t(186)=5.04$, $p<0.001$ and those who connected 4 or 5 days a week $t(186)=4.36$, $p<0.001$. The connectivity of 2 or 3 days as opposed to 4 or 5 days did not show significance.

The comparison that resulted in the best rating of the wiki was granted by the students who accessed the Internet daily $F(2.186)=15.156$, $p<0.05$, $\eta^2=0.134$ than those who connected 2 or 3 days $t(186)=4.94$, $p<0.001$ and those who connected 4 or 5 days $t(186)=3.70$ $p=0.001$. However, 2 or 3 days as opposed to 4 or 5 days of Internet access did not show relevance among the comparisons, as indicated by the Bonferroni test.

The students who reveled on a daily connection to the Internet rated the forums better $F(2.186)=15.577$, $p<0.05$, $\eta^2=0.138$ as compared to those who connected 2 or 3 days a week $t(186)=4.31$, $p<0.001$, and as opposed to those who accessed it 4 or 5 days a week $t(186)=4.62$, $p<0.001$. The comparison between 4 or 5 days and 2 or 3 days a week did not project results that were indicative of significance when rating this Web 2.0 tool.

4.5 Rating of Web 2.0 tools as a function of daily connection frequency

As before, when we performed an ANOVA (n.s.=0.05) to analyze the rating of Web 2.0 tools used to intervene in the invigoration and participation of the family as a function of daily connection frequency, the results showed that there was a statistically-significant effect.

The students who connected to the Internet for more than 5 hours a day positively rated the virtual learning environments $F(2.186)=6.703$, $p<0.05$, $\eta^2=0.064$. This is opposed to those who connected for 1 or 2 hours/day $t(186)=3.65$, $p=0.001$ or 3 or 4 hours/day $t(186)=2.52$, $p=0.037$. On the contrary, the multiple comparison between access of 3 or 4 hours and 1 or 2 hours did not show any notable results in the post hoc test applied.

The participating sample that accessed the internet for more than 5 hours a day gave a positive rating of the blogs $F(2.186)=12.458$, $p<0.05$, $\eta^2=0.113$, as compared to those who connected 1 or 2 hours a day $t(186)=4.98$, $p<0.001$ and those who connected 3 or 4 hours a day $t(186)=2.83$, $p=0.015$. Similarly, the comparison of connecting between 3 or 4 hours as opposed to 1 or 2 indicated that as the number of access hours increased, so did the rating of this Web 2.0 tool $t(186)=2.60$, $p=0.030$.

The positive rating of social and education networks was given by the students who connected more than 5 hours per day $F(2.186)=10.710$, $p<0.05$, $\eta^2=0.099$ as opposed to 1 or 2 hours per day $t(186)=4.57$, $p<0.001$; On the contrary, those who connected for more than 5 hours a day as compared to 3 or 4 hours did not show significant results in the rating. However, the comparison between connecting 3 or 4 hours and 1 or 2 hours was more favorable to the first group as compared to the second, for this Web 2.0 tool $t(186)=2.65$, $p=0.025$.

The students that accessed the Internet for more than 5 hours a day positively rated the video editors $F(2.186)=11.828$, $p<0.05$,

$\eta^2=0.108$; as compared to those who connected 1 or 2 hours per day $t(186)=4.84$, $p<0.001$ and those who accessed it between 3 or 4 hours per day $t(186)=2.69$, $p=0.022$. Whereas the comparison between connecting 3 or 4 hours versus 1 or 2 hours shows that as the number of hours increase, so does the rating of this Web 2.0 tool $t(186)=2.60$, $p=0.030$.

The comparison between more than 5 hours and 1 or 2 hours of connecting to the Internet was favorable to the first group $F(2.186)=12.675$, $p<0.05$, $\eta^2=0.115$, resulting in a better rating of the image editors $t(186)=4.85$, $p<0.001$, while in the comparison between connecting more than 5 hours and between 3 and 4 hours per day was not relevant as shown by the post-hoc tests applied. However, the contrast between 3 or 4 hours a day as opposed to 1 or 2, favored the first $t(186)=3.33$, $p=0.003$ in the rating of this Web 2.0 tool.

The positive rating of the image search engines was strongly promoted in the participants that connected for more than 5 hours a day to the Internet $F(2.186)=11.511$, $p<0.05$, $\eta^2=0.105$. This is as compared to those who connected 1 or 2 hours/day $t(186)=4.78$, $p<0.001$ and those who connected 3 or 4 hours/day $t(186)=3.42$, $p=0.002$. However, the comparison between 3 or 4 hours/day as opposed to 1 or 2 hours/day did not reveal any significant results in the Bonferroni test

The participating sample of students gave an almost positive rating to the video search engines $F(2.186)=7.013$, $p<0.05$, $\eta^2=0.067$, as compared to those who connected 1 or 2 hours/day $t(186)=3.73$, $p=0.001$, while the rest of the comparisons did not show any results that indicated significance in the rating of this Web 2.0 tool.

The students who enjoyed Internet access of more than 5 hours/day, positively rated the text search engines $F(2.186)=15.180$, $p<0.05$, $\eta^2=0.134$, as compared to 1 or 2 hours per day $t(186)=5.48$, $p<0.001$ and with 3 or 4 hours $t(186)=3.11$, $p=0.006$. Likewise, the comparison between connecting 3 or 4 hours as opposed to 1 or 2 hours per day shows that the greater the number of hours, the better rating given to this Web 2.0 tool $t(186)=2.89$, $p=0.012$.

The almost positive rating of the presentation search engines was given by the students who accessed the Internet for more than 5 hours/day $F(2.186)=7.425$, $p<0.05$, $\eta^2=0.070$, as compared to those who connected for 1 or 2 hours $t(186)=3.75$, $p=0.001$; the comparison between 3 or 4 hours as compared to 1 or 2 hours of connectivity, was more favorable to the greater number of hours for this Web 2.0 tool $t(186)=2.44$, $p=0.046$.

The rating of the Web 2.0 wiki when comparing Internet access of more than 5 hours and between 1 or 2 hours per day $F(2.186)=8.332$, $p<0.05$, $\eta^2=0.078$, was more favorable to the first type of connection $t(186)=4.05$, $p<0.001$, while connecting more than 5 hours and between 3 or 4 hours/day led to a better rating by the first type of Internet access $t(186)=2.98$, $p=0.010$. On the contrary, those who enjoyed connecting between 3 or 4 hours and 1 or 2 hours per day did not show significant results in the rating.

The student who connected more than five hours per day to the Internet gave a positive rating to the forums $F(2.186)=12.466$, $p<0.05$, $\eta^2=0.113$, in relation to those who connected 1 or 2 hours $t(186)=4.96$, $p<0.001$, and as opposed to those who accessed it between 3 or 4 hours per day $t(186)=2.75$, $p=0.019$. Likewise, the comparison between 3 or 4 hours as compared to 1 or 2 hours per day showed that the higher number of hours led to a higher rating of this Web 2.0 tool $t(186)=2.68$, $p=0.024$.

5 DISCUSION AND CONCLUSIONS

Families and their surroundings are the first socialization agents that also play a determinant role in the education of a child (Morillas & Mirete, 2011). Education understands this, and takes into account these two aspects, giving them a preferential place for their participation in the education centers, at the national as well as the international level (LOMCE, 2013; Redding, 2000). Notwithstanding, this family-school cooperation is not always dynamic or effective. "The participation of the student's parents creates a problematic picture that is generally found in the center, and that goes beyond the problems of the mere participation in the management boards" (Martín & Gairín, 2007 p.120).

This scenario pertains to the social educator as an education agent, who, from the orientation teams, can facilitate the coordination of all these actors, favoring the participation and invigoration of the families in the education centers, which is crucial for the development of an efficient and high-quality education in society, where the Web 2.0 tools can facilitate the development of these type of collaborative actions (Fernández & Bermejo, 2012). Therefore, the rating of these technological tools by these professionals will provide us with information for their initial and permanent training.

One of the conclusions that we can highlight is that gender is not a variable that affected the rating of these Web 2.0 tools which could be used for the educational intervention in the area of participation and invigoration of the family and community.

Likewise, the social and educational networks and the virtual learning environments were the best-rated resources for working in the education field by the social educators, taking into account that both benefit communication, interaction and collaborative work. As indicated by Aguilar and Leiva (2012), these tools favor protagonism and cooperation in the educational interventions in the search for an efficient process of socialization of minors and youths.

On the other hand, the rating of the eleven Web 20.0 tools for the educational intervention in the participation and invigoration of the family and the community was conditioned by the daily and weekly frequency of access to the Internet, by the type of device normally used to connect, and by the degree year of the future social educators, with the social and educational networks excelling as a technological resource, both of which are characterized as being purely communicative and facilitators of interaction (Cebrián, 2008).

Lastly, we believe that the ratings given by these students is more experimental and critical in character given the frequency of use they gave to the networked applications as pointed by Castaño Muñoz (2010). This periodicity in the use of the Web 2.0 tools implies the acknowledgement and real assessment of these resources for benefiting the participation and invigoration of the families and communities in the educational centers.

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