Implementation of parental control applications for Internet use as technological tools to support academic performance

Implementación de aplicativos de control parental en el uso de internet como herramientas tecnológicas de apoyo para el desempeño académico

Olga Delgado-Zambrano
Unidad Educativa "Tarqui", Manta, Ecuador
arely.delgado@educacion.gob.ec
https://orcid.org/0000-0003-0015-8599

Abstract

The objective of this study was to diagnose the parental control that the representatives of the Unidad Educativa Fiscal (UEF) "Tarqui" of the city of Manta, province of Manabí in Ecuador perform on the content that minors handle on the Internet. In addition, the feasibility of implementing a technological tool to facilitate this control was studied. The methodology applied had a qualitative-quantitative, exploratory and descriptive approach; it was applied to a population of 140 representatives and 140 students, and 40 teachers of the General Unified High School level were also considered. The results obtained allowed us to identify that despite the precautions or actions that the representatives carry out for the monitoring of internet activities by the minors, there is a need for an adequate tool through the use of computer programs or mobile applications that allow carrying out this activity in real time, responding to the time in which we live where every day it is more common for minors to access a device with connectivity; taking into account that parental interaction to ensure a good use of the internet may be of support in the academic performance of students and therefore positively influence their performance.

Keywords

Parental control, students, tools, Internet, technology, technology

Resumen

El presente estudio tuvo como objetivo diagnosticar el control parental que los representantes de la Unidad Educativa Fiscal (UEF) "Tarqui" de la ciudad de Manta, provincia de Manabí en Ecuador realizan sobre el contenido que los menores manejan en Internet. Además, se estudió la viabilidad de implementar una herramienta tecnológica para facilitar este control. La metodología aplicada tuvo un enfoque cualicuantitativo, de tipo exploratoria y descriptiva; ésta se aplicó a una población de 140 representantes y 140 estudiantes, también se consideró a 40 docentes del nivel de Bachillerato General Unificado. Los resultados obtenidos permitieron identificar que a pesar de las precauciones o acciones que los representantes realizan para el monitoreo de las actividades en internet por parte de los menores, existe la necesidad de una herramienta adecuada a través del uso de programas informáticos o aplicaciones móviles que permita llevar a cabo esta actividad en tiempo real, respondiendo al tiempo en que vivimos donde cada día es más común que los menores accedan a un dispositivo con conectividad; tomando en cuenta que, la interacción parental para procurar un buen uso del internet podrá ser de apoyo en el desempeño académico de los estudiantes y por ende influir positivamente en su rendimiento.

Palabras clave

Control parental, estudiantes, herramientas, Internet, tecnología

1. Introduction

For some time now, the use of the Internet has become an active part of the training process of students, especially in the current scenario where the pandemic caused by the COVID-19 disease has forced education to take place in virtual environments where the Internet has practically become the indispensable tool to be able to continue the educational process in some way. In this context, Internet content has become a concern for adults in charge of adolescents, because it is so diverse, and inevitably contains malicious information, even implying a degree of danger that can negatively influence the education of our young people. Regarding this reflection González-González and Hernández-Hernández (2017) indicate:

> The Internet is a very useful tool when it comes to communicating and obtaining information quickly. It offers us countless resources to establish social relationships, through e-mails, chats, social networks, etc., but it also has negative aspects derived from a bad use that must be taken into account.

> Children grow up in a globalized world in which with a single click they can access a multitude of spaces, pages, contents, etc. and, therefore, they can be exposed to these negative aspects if they misuse the Internet and social networks (p. 2).

The deficient capacity of adolescents to discern between information, the lack of knowledge of adults of the content preferred by young people, web pages or sites that have no ethics in the dissemination of malicious content; the economic interest of individuals or organizations (social networks, online games, various entertainment pages) interested in the large flow of information that can be handled rather than in the content of the same,

have made the Internet a major obstacle that directly interferes in the formative process, teaching-learning and values in young people of this era.

Another drawback detected in the handling of the Internet by minors is the use that adults make of the information and the different tools on the network, as they often become an example to follow or a point of reference for young people. In this regard, Sanchez-Valle et al. (2017) point out that:

> it seems to be demonstrated that parental style influences children's use of the Internet. Valcket, Bonte, Wever and Rots (2010) distinguished different parental styles according to the control exercised by parents. They found that the way in which children approach technology is related to parental Internet use, attitude and Internet experience, and defined parental style, parental Internet behavior and educational level as the variables most predictive of children's Internet use at home (p. 3).

The problems described above reach the educational level in the form of low quality homework, with copied content and irrelevant or unrelated information, cyber bullying and situations of violation of rights among peers, influence of customs, behaviors, cultural and psychological manifestations detrimental to the intellectual development of students. In fact, this greatly hinders the academic task, a problem to which the UEF Tarqui in the city of Manta is no stranger.

This research sought through the analysis of the problem that currently involves the use of the Internet in students, to consolidate the necessary information to establish the bases that allow from an active proposal to determine the relevance of implementing technological tools for parental control provided by technology today to address an obvious problem and from the academy to collaborate jointly with the role of parents or representatives; considering that these are key players to successfully carry out the teaching and learning process.

The article is structured as follows: literature review, methodology, discussion and results, conclusion and bibliography.

2. Literature review

Internet content has become a concern for adults in charge of the education of children and adolescents; faced with this problem, the need to bring parental control to the technological field appears, which implies the emergence of different ways of exercising this control ranging from domestic rules at home (not having passwords on devices, handing over devices at a certain time, surprise review of devices, etc.) to different technological tools that seek to help with this new situation in the upbringing and development of children and young people.

Sanchez-Valle et al. (2017) in a study entitled "The influence of parents in the acquisition of critical skills on the Internet", where from a representative sample of 765 families from the Community of Madrid selected according to the level of education, typology of the center and income level of the district distinguished different parental styles depending on the control exercised by parents. This study concluded, among other things, that:

> Parental control style is crucial in the empowerment of minors in the acquisition of critical skills, coinciding with previous works that had highlighted the importance of parental mediation in the adoption of the

> Internet (Valcket & al., 2010; Ihmeideh & Shawareb, 2014; Nikken &
> Schols, 2015). The range of styles associated with the use of the
> interactive medium highlights the importance of providing opportunities
> for minors to grow and acquire skills in the medium (p. 9).

On the other hand, it is also evident that the use that young people give to the Internet is more oriented to social than academic activities, Rodriguez et al. (2019) in their final report submitted as a requirement to qualify for the title of Specialist in Administrative Law at the University of Santo Tomas in Colombia, entitled "Parental cybercontrol: a suitable mechanism to safeguard the best interests of the child, against online risks" states:

> According to the parents surveyed, the most common social networking
> sites in which they think their children participate include: Facebook
> 80%, YouTube 46%, WhatsApp 40%, Instagram 34%, Twitter 30%,
> Skype 29% and Snapchat 19% (...) As can be seen from the above survey,
> the fact that minors have an interaction with social networks such as
> Facebook of up to 80%, highlights the exposed that in many cases can be
> seen, being vulnerable to countless computer risks on the web." (p. 16).

Coronel-Rojas (2018) at the Colegio Fundación Liceo Internacional in the city of Quito, conducted a descriptive study with a quantitative approach. The sample consisted of 20 parents of students to whom a survey-type instrument was applied, with which technological knowledge and knowledge about parental control tools were diagnosed. The results of the diagnosis showed that at the beginning most of the parents had no idea about the risks that their children run with the use of the Internet. After a training session conducted by the author, 70% considered that it represents a high risk and 100% expressed interest in learning about parental control tools.

2.1 Internet and education

Undoubtedly the field of education has been one of the fields influenced by the Internet, with the result that at the present time the teaching-learning process cannot be conceived without the presence of this universal tool, despite the fact that not everyone has access to it. With the large number of applications and uses given to the Internet, ranging from the reading of different texts to specialized programs on countless topics, it can be said that it has become a resource for education in the 21st century. In this regard, Selwyn (2013) textually states that:

> For many analysts, the Internet has always been an intrinsically
> educational tool. In fact, many would argue that the main characteristics
> of the Internet largely coincide with the central concerns of education.
> For example, both the Internet and education are about information
> exchange, communication, and knowledge creation (p. 197).

It is important in this section to make a special mention of the role of the Internet in education during the health emergency that the world is currently experiencing due to the COVID-19 pandemic; since thanks to this tool, it was possible to a greater or lesser extent to continue with the teaching and learning processes. In relation to this statement, de Santiago (2020) in the Cepal - Unesco report on education in times of the COVID-19 pandemic states:

> given that most countries have opted for the continuity of the educational
> process through online resources, the use of the Internet offers a unique
> opportunity: the amount of pedagogical and knowledge resources
> available, as well as the different communication tools provide privileged

platforms to bring the school and educational processes closer to homes and students in conditions of confinement (p. 5).

2.2 Students and internet

Considering the direct influence of the Internet in education, it is inherent that those influenced to a greater degree are the students, who not only make use of this tool for their learning process, but for them it has become an almost essential input for the development of many of their activities, especially socializing. In this regard, Carrazco et al. (2018) indicate: "young people seem to be developing new ways of communicating, interacting, learning and searching for information... the Internet has come to occupy a central place in the lives of adolescents as a means of information and communication accessible at all times..." (p. 4).

There are several research regarding the impact of the Internet on students' academic performance. Despite the great advances of this tool, many authors point to the negative effect of its use on the teaching-learning process.

Reinforcing this statement Balteiro (2015) in a study made from a group of 41 students indicates the following.:

> A total of 85.36% (35 subjects) confirmed our hypothesis about computers and other tools with Internet access as distracting elements in the teaching-learning process by stating that they concentrate less on the teacher's explanations and tasks to be performed and, therefore, are more distracted. However, only 7.31% (3 subjects) indicated that their level of concentration is not affected by the use or not of technologies, and 7.31% (3 subjects) did not answer (p. 10).

The same author concludes:

> As we have just seen, there are not all advantages when introducing ICTs in the classroom, as teachers often face problems of attention and dispersion on the part of the students at certain moments of the teaching-learning process.... In fact, as we have already pointed out, while academic results are higher in the traditional group where computer use is not allowed, since they focus more on instruction, students with access to technological tools are more distracted, concentrate less and learn less or worse than the former... (pp. 12-13).

Another impact that some researchers consider negative of the Internet in education is the use and abuse of social networks. Some authors agree that the excessive use of social networks takes up too much of their time, affecting the time they should devote to education. Many young people even replace or do not perform any physical activity because they are aware of the information circulating on these networks (Arab, 2015) and (Plaza, 2016).

2.3 Parental control

Parental control is a term coined by authors since the 1960s and in general terms refers to the measures that parents have for their children in different contexts. In the technological field, the term has been adapted to the monitoring that adults carry out on the content that minors handle on the Internet.

According to Carles (2014) "a parental control system is a tool that allows parents to control and/or limit the content that minors can use on the computer and can access the internet." (p.12).

Additional Blasco (2018) indicates.:

> Parental involvement and academic performance, measured simultaneously, are positively and significantly correlated. This means that the higher the parental involvement, the higher the child's performance at school. The evidence for this association is strong and is based on a large and consistent body of academic literature: all meta-analyses on parental involvement agree in estimating a positive and statistically significant association... (p. 6).

Based on the above, it is acceptable to indicate that the use of a parental control tool on Internet content is a strategy that allows representatives to show what their children are doing on the network and therefore direct them towards the proper use of this resource in favor of their academic performance.

3. Methodology

This study is a research with a qualitative-quantitative approach, since, starting from the diagnosis of the problem posed, the implementation of an active tool that responds to the needs detected is analyzed, considering the environment and our reality. The type of research is exploratory, taking into account that the topic to be investigated has been little approached at the local level and descriptive due to the use of instruments that allowed the collection of information and the deepening of the proposed problem.

The main population consisted of 140 family representatives corresponding to the first year of BGU of the U.E. "Tarqui". Additionally, we considered applying questionnaires to the teachers and students of the institution to obtain information about the topic to be investigated from these actors of the educational community; considering that, in the case of teachers, they could be indirect beneficiaries of the implementation of this project, while the students will be directly involved in it. For the survey of teachers, a population of 40 teachers was considered; in relation to students, the same number of representatives was considered, i.e., 140 students.

The research method is analytical and deductive; starting from the analysis of general or globalized data, information will be selected to justify the feasibility of implementing technological tools for parental control in the local context. For data collection, bibliographic techniques will be applied with the purpose of locating us from a documented perspective in time and space on the convenience of the tool that can be implemented; likewise, data collection techniques were applied with interviews and questionnaires to actors of the educational community, using different virtual or digital platforms (zoom, Teams, Google forms) to investigate the degree of knowledge they have about this type of tools and the advantage of their use to guide students in the responsible management of Internet content. The information was processed by means of statistical techniques that allowed the presentation of the analysis carried out and the discussion of results in the light of the scientific information presented.

4. Discussion and results

4.1 Interviews

With the purpose of knowing from an open criterion the opinion about Internet contents and parental control over them, an interview was conducted with different actors of the educational community: directors, teachers, and representatives. The table below presents the results and their discussion:

Questions	Interviewee's opinion
1. What is your role within the educational community of UE "Tarqui"?	Vice-rector of the Baccalaureate level and chemistry teacher in the third year of BGU.
	Teacher with permanent appointment in the first year of high school in the afternoon.
	Representative (parent) of the first year of high school, parallel "B" of the morning session.
2. What is your opinion regarding the use of the Internet for the development of academic activities by our students?	Vice Chancellor:
	- Important, positive and good tool, depending on the use students make of it; since if used inappropriately it becomes a distracting element and therefore brings inconveniences.
	Teacher:
	- Valuable and important tool. - Not all students have access to the Internet - Those who have access, not all use it for academic activities.
	Representative: - It's fine for things students need to know.
3. From your role, can you refer to any situation with children (students or children) in which the use of the Internet and its various applications have negatively influenced their academic performance?	Vice Chancellor: - Specifically I have not evidenced any negative situation; however, it indicates that there are indeed students who misuse it.
	Teacher: - Yes, young people who only spend time on social networks, on their mobile devices they do have them and even in the classroom labs.
	Representative: - She has 2 children, with the older one there have been no inconveniences. With the youngest son, there have been some problems due to the excessive time he spends on Internet games, which she is concerned about and dislikes.

4. If a parental control tool could be implemented at UE "Tarqui" to control the contents that children use on the Internet: Do you think it would be useful? Why?	**Vice Chancellor:** - Agrees 100% so that, in case of any anomaly in the use of the Internet, with proper control to be able to act in time. **Teacher:** - Yes, because it would be the beginning of applying technology in favor of parents. **Representative:** - Yes they would be helpful and I would be willing to use it.

Table 1. Results of interviews with stakeholders in the educational community

The opinions expressed show that there is a general consensus among managers, teachers and representatives on the importance of the Internet in academic activities.

> Given the high degree of integration of the Internet in family life, in some families parents went from an initial stage of ignorance, alertness and caution, to a stage in which the Internet is recognized as a necessary element for daily activities. In general, parents classify the Internet as a useful and necessary tool in their children's lives, which encourages children to access its sites more easily, integrating it more and more into their lives. (Barreras, 2013, pp. 141-142).

The responses also highlighted the fact that some minors make inappropriate use of the Internet and there was clear support for the implementation of a parental control tool that allows interaction with the content that minors handle on the Internet to affect the protective role of adults as responsible more effectively for the activities carried out by minors; regarding this Tordi (2019) indicates.:

> ICTs have arrived to transform the social, family, legal and public reality. Children and adolescents develop in a digital world that may be unknown to adults, a situation that does not serve as an excuse for not assuming the duties that emanate from their parental responsibility... (pg. 14).

4.2 Questionnaires

Questionnaires were sent to representatives, teachers, and students, through which an exploratory study was carried out to determine the degree of information on parental control technological tools available to these actors in the educational community of the UEF "Tarqui" of Manta.

4.2.1 Questionnaire to representatives

The questionnaire was applied to 140 representatives, through 11 questions. It was designed in the Google Forms application. The table below shows the results obtained and their discussion.:

Questions	Response options	Frequency	Percentage
1. 1. Do you believe that in the teaching-learning process it is	Agree	94	67.10 %

necessary to use ICT to interact with students, considering that they are natives of the digital world??	Partially Agree	35	25.00 %
	Disagree	11	7.90 %
	Total	140	100.00 %
2. 2. Do you consider that students make responsible use of the Internet when applying it in their academic training?	Agree	84	60.00 %
	Partially Agree	45	32.10 %
	Disagree	11	7.90 %
	Total	140	100.00 %
3. 3. In which of the following options do you think students spend most of their time on the Internet??	Academic activities	71	50.70 %
	Social Networking	35	25.00 %
	Watch videos	11	7.90 %
	Online games	12	8.60 %
	Entrepreneurship and product promotion activities	13	2.10 %
	Other	8	5.70 %
	Total	140	100.00 %
4. From your role within the educational community, have you been able to evidence that the inappropriate use of the Internet by children has affected their academic performance?	Always	18	12.86 %
	Sometimes	75	53.57 %
	Rarely	29	20.71 %
	Never	18	12.86 %
	Totales	140	100.00 %

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Question	Response	Count	Percentage
5. From your role within the educational community, have you been able to evidence that the inappropriate use of the Internet by children has affected their behavior?	Always	16	11.43 %
	Sometimes	66	47.15 %
	Rarely	36	25.71 %
	Never	22	15.71 %
	Total	140	100.00 %
6. Do you consider that adults are an example for children to follow in their use of the Internet?	Agree	95	67.86 %
	Partially Agree	40	28.57 %
	Disagree	5	3.57 %
	Totales	140	100.00 %
7. Do you consider that responsible adults exercise adequate control over the content that the best ones handle on the Internet?	Agree	105	75.00 %
	Partially Agree	30	21.40 %
	Disagree	5	3.60 %
	Total	140	100.00 %
8. Have you ever used a parental control technology tool?	Yes	69	49.30 %
	No	71	50.70 %
	Total	140	100.00 %
9. 1. Do you believe that the implementation of a parental control tool on the contents that children handle on the Internet can influence a better academic performance of students?	Agree	90	64.30 %
	Partially Agree	33	24.60 %
	Disagree	17	12.10 %
	Total	140	100.00 %

10. 10. Would you be willing to use a parental control tool that allows you to interact with the content that minors handle on the Internet?	Yes		117	83.60 %
	No		23	16.40 %
		Total	140	100.00 %
11. 11. If you are willing to use a parental control monitoring tool: What kind of reports would you like this tool to provide?	Report of pages browsed		39	27.86 %
	Browsing time		31	22.14 %
	Location		2	1.43 %
	All of the above		68	48.57 %
		Total	140	100.00 %

Table 2. Results of questionnaire applied to representatives

In question 1 of the questionnaire applied to representatives, the results reflect that for most of the respondents the use of ICT is necessary in the teaching and learning process. It can be inferred that the representatives assume the need to involve technology in the educational process as part of the training of their children, to provide them with tools that allow them to interact in this digital era, of which they are natives.

> Most parents know instinctively that the 21st century is different; they see the changes everywhere. What they really want is to be sure that their children are preparing well for their future lives and jobs. (Prensky, 2011, p. 45)

The results of question 2 show that 60% of the representatives trust the responsible use of the Internet by the students in their academic formation. However, the results of those who partially agree and those who do not agree add up to 40%, which can be considered as an important percentage of the uncertainty that parents or representatives have about the use of the Internet by minors. Considering that this survey was applied to representatives of first-year high school students ranging in age from 14 to 17 years old, it can be theorized that with increasing age it is more uncertain for the representatives to be sure about the responsible use of the Internet by students in their academic training; regarding this inference, Jiménez-Iglesias et al. (2015) indicate.:

> Children are aware of the importance of their parents as agents that regulate access to certain content on the Internet, particularly in the phases in which they start surfing. However, as they grow up, the role of parental figures becomes less relevant… (p. 64).

Regarding question 3, the results are like those of the previous question, 47.20% of representatives are aware that children use the Internet for non-academic purposes. It is reasonable to interpret these results as an indicator that there are resources or content on

the Internet that become distracting elements for students in their academic performance. Conde Miranda (2018) in his research on the use of information and communication technology among adolescents concludes:

> With respect to the activities carried out by adolescents on the Internet and cell phones, those related to communication, mostly with people they know, and entertainment (watching videos on YouTube, following youtubers, downloading series and movies, watching and posting on social networks, ...) stand out (p. 20)..

Questions 4 and 5 of the questionnaire to representatives were oriented to know if the inappropriate use of the Internet has affected the academic performance and behavior of the students. Based on the answers obtained, it can be observed that the inappropriate use of the Internet by students may pose some risk; the results were conclusive since adding the answers of always and sometimes, 66.43% of the representatives indicated that the inappropriate use of the Internet has affected the academic performance of minors, while 58.58% indicated that it has affected their behavior.

> The Internet is a very useful tool for communicating and obtaining information quickly. It offers us countless resources to establish social relationships, through mails, chats, social networks, etc., but it also presents negative aspects derived from a bad use that should be considered (Gozález-González and Hernández-Hernández, 2017, p, 2).

The results of question 6 show that the representatives are aware of the example they set for the use that minors make of the Internet. In this regard Sanchez-Valle et al. (2017) indicate that "it seems demonstrated that parental style influences children's use of the Internet" (p. 3).

This aspect is relevant as an indicator of the awareness that representatives have about the importance of a good use and management of Internet content.

The results of question 7 in relation to adequate parental control over the content that minors handle on the Internet differ from the results of questions 4 and 5, since while the results of these questions show effects on the academic performance and behavior of students due to inappropriate use of the Internet, in this question 75% of them assure that they exercise adequate control over the content that minors handle on the Internet. From the point of view of the researcher, it is inferred that there is no clear concept on the part of the representatives about parental control on the Internet and what this entails, or that despite the strategies, minors manage to bypass these controls, coinciding with what Barreras (2013) states "... in some cases, while parents' strategies to control the use that their children give to the Internet emerge, the children's tactics to evade and resist them also emerge." (p. 141).

In question 8, the results indicate that 49.30% of the representatives say they have ever used a parental control tool while 50.70% say they have not. These almost equal results strengthen the researcher's point in the previous question about the idea that there is no clear concept on the part of the representatives about parental control on the Internet.

The results of questions 9 and 10 support the relevance of the present study. While in question 9, 88.90% of the representatives agree and partially agree with the implementation of a parental control tool, in question 10, 83.60% would be willing to use it.

> The different generations that make up the family have interpreted the role of TDs in our culture differently. The younger ones have seen in TDs a window that opens the possibility of other ways of socialization, which is no longer restricted to a physical space or time, they can now have the world at a click or a "touch on the screen". In contrast, parents are experiencing a growing sense that TDs oppose traditional family values, hinder interpersonal encounters, and create unhealthy habits in minors (Montoya et al., 2018, p.6).

The results of question 11 demonstrate the parents' uncertainty about their children's interaction with Internet content. It is striking that a percentage of less than 50% indicate that they would like the technological control tool to give them a report of all the options presented, which again strengthens the researcher's idea of the incipient idea of parental control of Internet content that the representatives have.

4.2.1 Teacher questionnaires

El cuestionario se aplicó a 40 docentes a través de 9 preguntas; su diseño y aplicación fue a través de Formularios de Google. A continuación, se muestra el cuadro con los resultados obtenidos, los mismos que fueron contrastados con las respuestas obtenidas de los representantes.

Questions	Response options		Frequency	Percentage
1. Do you believe that in the teaching-learning process it is necessary to use ICTs to interact with students, considering that they are natives of the digital world?	Agree		37	92.50 %
	Partially agree		3	7.50 %
	Disagree		0	0.00 %
		Total	40	100.00 %
2. Do you consider that students make responsible use of the Internet when applying it in their academic training?	Agree		3	7.50 %
	Partially agree		27	67.50 %
	Disagree		10	25.00 %
		Total	40	100.00 %
3. In which of the following options do you consider that students spend most of their time on the Internet?	Academic activities		1	2.50 %
	Social Networking		24	60.00 %
	Watch videos		2	5.00 %
	Online games		11	27.50 %
	Entrepreneurship and product promotion activities		1	2.50 %
	Other		1	2.50 %
		Total	40	100.00 %

4. From your role within the educational community, have you been able to evidence that the inappropriate use of the Internet by children has affected their academic performance?	Always	10	25.00 %
	Sometimes	25	62.50 %
	Rarely	3	7.50 %
	Never	2	5.00 %
	Total	40	100.00 %
5. From your role within the educational community, have you been able to evidence that the inappropriate use of the Internet by children has affected their behavior?	Always	4	10.00 %
	Sometimes	33	82.50 %
	Rarely	2	5.00 %
	Never	1	2.50 %
	Total	40	100.00 %
6. Do you consider that adults set an example for children to follow in their use of the Internet?	Agree	24	60.00 %
	Partially agree	13	32.50 %
	Disagree	3	7.50 %
	Total	40	100.00 %
7. Do you consider that responsible adults exercise adequate control over the content that the best ones handle on the Internet?	Agree	21	52.50 %
	Partially agree	14	35.00 %
	Disagree	5	12.50 %
	Total	40	100.00 %
8. Do you believe that the implementation of a parental control tool on the contents that children handle on the Internet can influence a better academic performance of students?	Agree	34	85.00 %
	Partially agree	6	15.00 %
	Disagree	0	0.00 %
	Total	40	100.00 %
9. What kind of reports would you recommend a parental control tool to provide to representatives?	Report of pages browsed	7	17.50 %
	Browsing time	3	7.50 %
	Location	0	0.00 %
	All of the above	30	75.00 %
	Total	40	100.00 %

Table 3. Results of the questionnaire applied to teachers

The results of question 1 of the questionnaire applied to the teachers show a conclusive result of the teachers' criteria on the need for the use of ICT in the teaching-learning process, coinciding with what was stated by the representatives.

The results of questions 2 and 3 show that the teachers' opinions differed from those of the representatives regarding the responsible use that children make of the Internet and the activities in which they spend their time when using this resource. While the representatives agreed that students use the Internet responsibly and most of the time they use it for academic activities, the teachers differed, since in question 2 they expressed 67.50% partial agreement on the responsible use of the Internet by students and in question 3 only 2.50% said they believed that students use the Internet for academic activities. This information is relevant, considering that teachers are direct beneficiaries of the responsible use of the Internet for academic purposes by students.

In the results of questions 4 and 5, the teachers coincide with the answers given by the representatives to the same question, stating in a majority percentage of 87.50% in question 4 and 92.50% in question 5 (between the options of always and sometimes) that they have been able to demonstrate effects on academic performance and behavior due to the inappropriate use of the Internet by the children.

Similarly, in question 6, with a majority percentage of 60%, teachers and representatives agreed that adults are an example for the use that children may make of the Internet.

In question 7, teachers also agree with the representatives in agreeing that adults exercise adequate control over the content that minors handle on the Internet, which differs (as well as with the representatives) with what was expressed in questions 2 and 3 regarding the responsible use of the Internet by students for academic activities. This strengthens the researcher's notion that it is still not clear among the different actors of the educational community what parental control over Internet content means.

The results of question 8, again coincide with those of the representatives; with a result of 85%, the teachers state that the implementation of a parental control tool can influence a better academic performance of the students.

The teachers' answers to question 9 show that the majority of teachers, 75%, recommend that the parental control tool should provide a report with all the options mentioned above.

4.2.2   4.2.2 Student Questionnaire

The questionnaire was applied to 140 students, through 5 questions; the Google Forms application was used. The table below shows the results obtained, which were contrasted with the answers obtained from the representatives and teachers.

Questions	Response options	Frequency	Porcentaje
1. Do you use the resources available on the Internet responsibly when applying them in your academic training?	Always	73	52.14 %
	Sometimes	60	42.86 %
	Rarely	7	5.00 %
	Never	0	0.00 %
	Total	140	100.00 %
	Actividades académicas	80	57.10 %

70

2. Which of the following do you spend most of your time on the Internet?	Social Networking		26	18.60 %
	Watch videos		8	5.70 %
	Online games		11	7.90 %
	Entrepreneurship and product promotion activities		1	0.70 %
	Other		14	10.00 %
		Total	140	100.00 %
3. Do you think that the adults in your environment are an example of the use that can be made of the Internet?	Agree		86	61.40 %
	Partially agree		43	30.70 %
	Disagree		11	7.90 %
		Total	140	100.00 %
4. In your household, are the responsible adults fully aware of the content you handle on the Internet?	Agree		92	65.70 %
	Partially agree		37	26.40 %
	Disagree		11	7.90 %
		Total	140	100.00 %
5. Do you believe that, with proper guidance from responsible adults about your use of the Internet, you can positively influence your academic performance?	Agree		98	70.00 %
	Partially agree		40	28.60 %
	Disagree		2	1.40 %
		Total	140	100.00 %

Table 4. Results of the questionnaire applied to teachers

The results of questions 1 and 2 in the questionnaire applied to the students reveal the students' perception of responsible use of the Internet and the fact that they spend most of their time on academic activities. In question 1, 52.14% expressed that they always make responsible use of the Internet and in question 2 they stated that 57.10% of their time on the Internet is dedicated to academic activities; however, the fact that 47.86% stated that they sometimes or rarely make responsible use of the Internet in question 1 and 42.90% indicated that they use most of their time in activities other than academic ones shows that a good percentage of the students are aware of the non-responsible use of the Internet in their academic training. It is important to emphasize that the results of these questions coincide with what the representatives indicate and differ with the opinion of the teachers.

In question 3, the results coincide with what was stated by representatives and teachers, regarding the fact that the surrounding adults are an example of the use that can be made of the Internet. With 61.40% of the students agreeing and 30.70% partially agreeing with the influence of adults in the use of the Internet, a majority percentage of 92.10% expressed this important opinion.

Regarding question 4, most students state that adults have full knowledge of the content they handle on the Internet. The results coincide with those expressed by representatives and teachers.

The results of question 5 also agree with the opinion of the representatives and teachers in that students believe that with proper guidance from responsible adults about their use of the Internet, they can positively influence their academic performance. The fact that 70% of the students agree is an endorsing resource for the relevance of the proposed study. It is important to emphasize that it is pleasantly striking that the children do not oppose guidance on the Internet, which shows that our children are always ready to support us in any activity.

5. Conclusion

The use of the Internet in educational processes is seen by representatives and teachers as an indispensable resource for students to carry out their academic activities; however, this resource brings with it other elements that at some point become distractions for minors. The representatives are aware of their role and exercise parental control in this regard from the possibilities that their environment allows.

The diagnosis carried out revealed the need to implement a technological tool for active parental control, which allows representatives to obtain detailed information in real time from the same virtual space in which the students develop, on what the minors do on the Internet.

Knowing what they do on the Internet and how much time they spend on it is of interest to representatives and even teachers, therefore the parental control tool to be implemented should provide this information.

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Author

OLGA DELGADO-ZAMBRANO obtained her Master's degree in Education, Mention: Education and Creativity at the Universidad San Gregorio de Portoviejo in 2021 and the degree of Systems Analyst from the Faculty of Systems Engineering at the Universidad Laica Eloy Alfaro del Ecuador in 1999. With a deep social sense, she has worked as a teacher since 2011 to the present, passing through emblematic schools such as the Unidad Educativa Fiscal "San Mateo" and the Unidad Educativa Fiscal "Tarqui" (UEFT) both in the city of

Manta in Ecuador. She has been trained in topics such as "Awareness in disabilities" organized by CONADIS; "From the traditional school to the innovative one" by UNAE and the academic updating program in "Leadership and Educational Innovation" executed by the Varkey Foundation, the University of La Rioja and the Ministry of Education of Ecuador"; among others.

She currently serves as Vice Rector of the Unidad Educativa Fiscal Tarqui, trying to shape in her students the role of protagonists of development, as an active idea to contribute to the quality of education.