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## Parental mediation of the Internet use of Primary students: Beliefs, strategies and difficulties

## Mediación parental del uso de Internet en el alumnado de Primaria: creencias, estrategias y dificultades

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### Abstract

The use of the Internet by children at an increasingly early age today constitutes a major challenge for families and schools, as well as affecting educational and social policy. This is a qualitative piece of research that analyzes parents' beliefs, everyday practices and the difficulties they face in teaching their children the benefits and risks inherent in Internet use. The researchers used the discussion group technique, with four groups of parents of primary school children from four different schools. The results indicate that they share a pessimistic rather than an optimistic attitude towards Internet use among children in this age group, and perceive a number of difficulties when trying to foster children's responsible use of Internet. A wide range of parental control and mediation strategies were identified (laying down rules, organization of time and space for Internet use, limits and supervision (direct, agreed-upon, non agreed-upon and technical), along with various support strategies (parent and sibling modeling, diverse teaching strategies for stimulation and family communication) which, with the exception of technical supervision, they often use to educate their children and control their behavior in other areas, and which form part of their general parenting style. The conclusions point to the need to develop digital competence among parents, and there is some justification for educational intervention such as in promoting collaboration between families and schools.

### Resumen

El uso de Internet de los niños y las niñas a edades cada vez más tempranas constituye un reto para las familias, las escuelas y la política educativa y social en la actualidad. Se presenta una investigación cualitativa cuyo objetivo es analizar las creencias, prácticas cotidianas y dificultades que afrontan los padres y las madres cuando tratan de enseñar a sus hijos e hijas los beneficios y riesgos de Internet. Se ha utilizado la técnica de



los grupos de discusión con cuatro grupos de madres y padres de alumnado de Educación Primaria de cuatro centros educativos. Los resultados indican que comparten una concepción más pesimista que optimista sobre el uso de Internet a estas edades y que perciben diversas dificultades cuando tratan de promover su uso responsable. Se identifican diversas estrategias de mediación parental de control: establecimiento de normas, organización espacio-temporal de límites y supervisión (presencial directa, consensuada, no consensuada y técnica) y de apoyo (modelado parental, entre hermanos y diversas estrategias instructivas, de estimulación y comunicación familiar) que, a excepción de la supervisión técnica, habitualmente utilizan para educarles o controlar su comportamiento en otras áreas formando parte de su estilo general de parentalidad. Las conclusiones apuntan la necesidad de desarrollar la competencia parental digital y algunas implicaciones para la intervención educativa como promover la colaboración entre la familia-escuela.

## Keywords / Palabras clave

Internet, beliefs, parental mediation, parental control, primary education, digital literacy, intervention, risks. Internet, creencias, mediación parental, control parental, educación primaria, competencia digital, intervención, riesgos.

## 1. Introduction

One of the biggest challenges faced by families, schools and social and educational policymakers today is to maximize the benefits and minimize the risks of Internet use among young children and teenagers. According to Livingstone & Helsper (2008), "mediation" refers to the parents' management of their children's relationship with media. From the perspective of social and educational intervention, effective parental mediation is seen as one of the several important actions for promoting children's safe and responsible use of Internet that also include campaigns to raise awareness, software tools to filter content, and the development of digital competence at schools (Bringué & Sádaba, 2009; Garmendia, Casado, Martínez, & Garitaonandia, 2013; Valcke, De-Weber, Van-Keer, & Schellens, 2011).

In the family setting, the way young boys and girls use media is one of the issues that most concerns parents today (Duggan, Lenhart, Lampe, & Ellison, 2015). Connell, Lauricella and Wartella (2015) have reflected on the debate among researchers around the fact that the ubiquitous nature of media leads to a distancing between family members (Turkle, 2011). Others that suggest that media are fundamental aspects of family life today that can influence how a family functions, for better or for worse (Takeuchi, 2011).

There are two complementary strands of research on parental mediation in Internet use in infancy (Livingstone & Helsper, 2008). The first identifies various typologies of parental mediation styles. Their sources of influence and their efficacy in reducing the risks posed by unsuitable Internet use (Garmendia, Garitaonandia, Martínez, & Casado, 2011; Garmendia & al., 2013; Kirwil, 2009; Livingstone, Haddon, Görzig, & Ólafsson, 2011; Livingstone & Helsper, 2008; Ofcom, 2014; Sonck, Nikken, & de Haan, 2013). These works emphasize that parental mediation is universal (Kirwil, 2009). Although mothers and fathers apply many different mediation strategies, they tend to prefer social mediation and the shared/co-use of Internet involving communication with their children and instructive mediation rather than just installing professional computer protection software tools to block undesirable content (Kirwil, 2009; Livingstone & Helsper, 2008; Ofcom, 2014). The results on effective parental mediation are contradictory: some works state that the most effective strategies are those which are restrictive, banning their children from any online interaction with their peers (Livingstone & Helsper, 2008). Others declare that the efficacy of parental mediation strategies is determined by the values promoted during the child's upbringing within a given sociocultural context (Kirwil, 2009).

The second approach by parental mediation researchers studies socialization practices that contribute to the formation of the beliefs, values and ethno-theories of the progenitors that affect



infant media consumption and, more recently, on media literacy (Livingstone, Marsh, Plowman, Ottovordemgentschenfelde, & Fletcher-Watson, 2015). Sorbring (2014) found that the concerns of parents (N=798), regarding teenagers' (in this case, aged 13-15) use of Internet, was related to the parents' attitudes, knowledge, and experiences of Internet use, to their beliefs in their children's ability to use Internet, and to the use they made of it. The parents who showed greatest concern were those who were aware of the negative experiences suffered by their children on Internet, and who consider that the use of Internet during adolescence is positively related to their level of concern about issues such as searching for inappropriate information on the Net, losing friendships, being physically inactive or being exposed to potentially dangerous people or material that is disturbing or violent, although a parental perception of the maturity of their teenage children also figures.

Cheung (2010) studied 2,579 families with children ranging from 6 to 17 and found that parents' knowledge of how to use the Internet was a key factor in their supervision of their children's use of Internet and that mothers were more likely to assume this role. About half the parents expressed satisfaction with their ability to help their children to benefit from Internet use and protect them from the risks, whereas one-third were dissatisfied and acknowledged difficulties in protecting their kids. Parents' level of education, knowledge and a positive attitude towards Internet use, as well as adopting an authoritative parental style and maintaining good relations within the family, are positively associated with parents' skill in helping their children to benefit from the Internet and in protecting them from risk; however, parental satisfaction reduces as their children get older and they spend more time online.

Ilhmeidh and Shawareb (2014) concluded that the style of upbringing played a fundamental role in promoting, or restricting, a child's exposure to Internet: when the parents adopted an authoritative style that combines a high level of support and control (laying down rules about Internet use and discussing them together, and encouraging them to talk freely about their online activities), it was more likely to stimulate Internet use than when parents adopted an authoritarian (high level of support and control), permissive (high level of support, low level of control) or negligent (low level of support and control) attitude, confirming the results in other works (Valcke, Bonte, De-Wever, & Rots, 2010; Valcke & al., 2011).

The majority of the research in Spain on parental mediation in children's Internet use (Bringué & Sádaba, 2009; Casas, Figuer, González, & Malo, 2007; Garmendia & al., 2013; INTECO, 2009; Álvarez, Torres, Rodríguez, Padilla, & Rodrigo, 2013; Padilla & al., 2015; Sureda, Comas, & Morey, 2010) has been based on surveys and focused mainly on the teenage phase. Some studies have combined quantitative methodologies via surveys and more qualitative methods, with the aim of investigating parental mediation of children's Internet use in the earlier stages of child development (Chaudron, 2015; Livingstone & al., 2015).

The aim of this research is to analyze the beliefs and daily practices of parents in Spain in promoting the responsible use of Internet by their children. The specific aims are: 1) To analyze parental beliefs on Internet use by primary school pupils; 2) To identify parents' mediation strategies; 3) To recognize the difficulties parents perceive in teaching responsible use of the Internet and in avoiding its dangers; 4) To detect the needs of parents in their mediation and draw practical conclusions for educational interventions aimed at helping families.

## 2. Methodology

This is a qualitative investigation that uses the group discussion technique to perform an in-depth analysis of the beliefs, daily practices and main difficulties that parents face when trying to teach their children how to use the Internet responsibly. This study does not aim to generalize its results but to respond to a need perceived by schools and parents for information, instruction and guidance on parental mediation in the use of Internet by primary school children.

The choice of schools was intentional and based on specific characteristics such as families with children in the third and sixth year of primary school in state or private state-funded schools who were aware of their children's use of Internet, families from urban and rural settings, immigrant and



native families. The parents participated voluntarily and formed four groups (NG1=10, NG2=8, NG3=15 and NG4=11), they numbered 44 parents in total (37 women, 7 men), whose children were attending the third (aged 8-9) and sixth (aged 12-13) grades at four primary schools in the Guipuzcoa province of the Basque Country, in northern Spain. Two were state schools and two private state-funded schools. The sociocultural diversity of the families of students was greater at the two state schools; in terms of size, three of the four schools were secular, offering two classes per course while one of the private state-funded schools had four; one of the four schools was religious; two were located in rural and two in urban areas.

The procedure was to request parents' collaboration in the study through the head teachers and teacher-parents associations at the four centers for them take part in a debate on their role in their children's consumption of media through various screens. The questions posed to the parents were: 1) What positive and negative aspects do you believe consumption of media has at these ages? 2) How do you act about your children's consumption of media? 3) What do you believe are the main difficulties? This study only compiled information related to the parents' beliefs and mediation practices regarding their children's use of Internet. The Nvivo 10 software program was used to classify, analyze and synthesize the data obtained.

### 3. Results

#### 3.1. Parental beliefs

The parents had positive and negative conceptions on the use of Internet at these ages, but the negative ones (70.55%) outweighed the positive (29.45%) by more than double. The main negative conception was the inappropriate use that their children could make of the Internet (30.13%), specific access to violent content (and to a lesser extent, pornographic, stereotypical or drug-related). Another worry was the children's lack the maturity in dealing with content aimed at older children: "What worries me is that my nine-year-old daughter has hooked up with boys of 11 or 13, so she has access to the world that for her is fascinating, and now she wants a tablet to play online with some people, to play some war game. They want to have access to this older world which is still far beyond their understanding". Parents expressed concerns about the excessive amount of time spent online, and the inappropriateness of the time and place for doing so: "At Christmas, I was surprised to find that so many children send each other WhatsApp messages, often well after midnight."

A second set of concerns covered the negative consequences of using Internet (20.87%), especially the social ones (difficulties in communication ("people communicate worse"), misunderstandings, problems in relating to others, loss of direct face-to-face communication ("There's no conversation", "We have forgotten how to relate to each other, the day-to-day communication"), fewer opportunities to "learn to play together" as opposed to "playing on machines", the trend towards individualism and individualization, and the psychologies (isolation ("They don't listen"), dependence, lack of conversation, they get easily frustrated, lack of imagination, the sense of boredom if they are not online ("They don't know how to play" or "have fun"), bullying, invasion of privacy, consumption of pornography ("sexting"), frustrations, concern about stereotypes, lack of real positive role models on Internet, getting stigmatized if they do not connect to certain trendy social networks. These concerns were matched by those relating to academic performance ("They don't know how to write", spelling mistakes, low attention span, an excessive search for immediate gratification and lack of reflection, a lack of effort and perseverance when faced with difficult tasks (for example, in Maths) and the physical consequences (a more sedentary lifestyle, less inclination to do physical games or sporting activities).

Other parental concerns include the uncertainty generated by their children's use of Internet (17.59%) ("Right now I don't know how they use it, now they are joining groups, and the more they join, the better it makes them feel; it's not about how he uses it, but the stuff he is receiving"), the perception of their children being beyond their control (14.76%), ("I believe the problem is this, you give them a cell phone, but with the Internet connection, you give them freedom that you can no



longer control... what they do is now beyond your control") and the risks they perceive (16.65%) such as the invasion of privacy ("we are very worried about photos, the videos they record of each other, how they use them because they use Instagram, Twitter, Facebook, they use all of them; it is very fashionable among girls of 13-14 to take topless selfies and pass them around the WhatsApp groups"). There is also dependency ("I think they are addicted; at the weekends they get up early and we have to tell them that they cannot use their cell phones until 10am"), interpersonal conflicts ("The serious misunderstandings that occur on WhatsApp, you are not seeing the person's face; they don't realize, they think they are funny, they have been working on the issue of bullying, 'don't you call me that!'), or even criminal actions on the Net ("At school, it began with some photos, then there were more problems, yes, it's bullying, no it isn't bullying").

In contrast, there were positive conceptions of the use of Internet by children in these two age groups, in particular, the potential offered by Internet for the child to develop (25.19%) in areas such as digital competence, self-management, social integration, autonomy, critical attitude, responsibility, mental development and spatial orientation. The parents also mentioned positive aspects such as access to information (22.4%), Internet's usefulness for learning and/or educating (15.22%), assistance in parental supervision (14.52%) and, to a lesser extent, its potential for communication and socialization (9.95%), leisure activities (9.9%) and a certain veneration for technology (2.82%). "This world has many positive things, access to information, knowing how to use it, talks about drugs; sometimes it surprises you, my child has seen the brain on Internet, it can raise critical capacity, searching for information; on the Internet you have all the options available from black to white, let the child decide".

The parents also acknowledged that Internet is a source of information for adults too, and is very useful for passing on knowledge to their children: "You get informed, and it is easier to sit down and talk about things with your kids, about sex, etc.; sometimes they ask 'Dad, what's this?'; in the morning, I go on the Internet to find out, and later I say, 'that thing you asked about yesterday...and I can answer them". The parents also emphasized the support of parents' groups who exchange information online.

### 3.2. Parental mediation strategies

The parents recognized that they use various strategies to mediate their children's use of Internet; 53.54% responded that they impose restrictions or control measures, while 46.46% said their interventions were of an instructive and supportive nature.

Restrictive parental strategies refer to daily practices of regulation and control of their children's use of Internet. Inappropriate behaviour on the Internet was punished (for example, by the withdrawal of cell phone), and they considered that it was important to be coherent, to reason and match the negative consequences to any online misbehaviour.

The type and quantity of restrictions the families established on Internet use varied when dealing with online activity during the week or at the weekend, with parents giving their children more freedom at weekends. The following control strategies were identified (Table 1): establishment and application of norms (57%), time-space organization (36%) and supervision (7%).

**Table 1. Parental mediation strategies for controlling primary school pupils' use of Internet**

Establishing and enforcing rules	Delay purchase of cell phone with Internet access, allow child to use an adult's cell phone if the boy or girl does not have one of their own; be firm when the child insists on having a cell phone with WhatsApp and Internet access: "Rather than prohibit, we have taken it off them".
	Prohibit access when there is no adult present and block access to certain content: "They have to ask their mother or father before accessing content", "warn them if they see something online that is inappropriate".
	Remind them of, and emphasize constantly, the rules and prohibitions: "You are not going to have your cell phone until you are 12", "Do not upload photos!", "Don't



	<p>give out information about where you are”, “Do not switch on the computer without a parent present”, “Do not search for things that you are too young to see”.</p> <p>Negotiate and reach agreements, or establish rules related to homework: “They can use Internet to do homework”, “They can use the Net after finishing homework”, or “On days when they don’t have homework”.</p>
Organizing time and space for Internet use	<p>Restrict the time they spend on Internet, fix timetables and limit the space or screens they are allowed for accessing Internet: “They can only use it at home”, “When they use it, we are all present, with the doors open”, “No more than one screen switched on at a time”, “All phones switched off or used only in a single space to avoid noise”.</p>
Supervision	<p>Direct supervision: “I’m always more aware of the computer, of what they are up to, particularly on Internet; you control what they see and what they are watching, out of curiosity they can access material that is inappropriate”.</p>
	<p>Agreed-upon and shared supervision: “I look at the things he sees, I tell him “Ok, show me”, “I’ll take a look” “Let’s look at it together”, I want him to know that I want to protect him, not because I want to spy on him; I also let him look at things on my computer so that he has the confidence to see things on mine, as I do on his”.</p>
	<p>Non agreed-upon supervision: “I look at what she’s looking at, I check her phone as I just don’t trust her, I see if she answers people using her real name and age”.</p>
	<p>Technical supervision: “The main computer in the house is in the living room and we keep a constant eye on it, we have software programs for parents and we selected the most appropriate one for our needs because the difference in age range is four years, and the youngest copies everything the older one does”.</p>

It is also important to note that some mothers were openly against none agreed-upon supervision because they see it as an attack on their privacy: "I have nothing to hide, but I'd get angry if they read my conversations; my conversations are mine, and I don't want my daughter or anyone else to read them".

The survey also revealed parental mediation in the form of support activities (Table 2) such as communication and teaching strategies (73.01%) and, to a lesser extent, of modeling (13.76%) and stimulation (13.2%).

**Table 2. Support strategies in parental mediation of primary school pupils’ use of Internet**

Communication	<p>Establish bonds of trust and show interest in how they use Internet: “I trust my son because we have a lot of conversations, and this is what we have to cultivate. The trust between parents and children must never be broken; instead of emphasizing the negative, which is what we should never do, use positive communication by showing an interest and asking them about what they search for and see on Internet”.</p>
	<p>Respond to their doubts and encourage them to reflect: “We must accompany them and make them question whether it is a good idea to download that photo”.</p>
	<p>Discuss books about the risks of Internet use: “I want to talk about a particular resource, a book called ‘Clara says’, about a girl in the second year of secondary school who’s a very good student and one day she joins a social network where they deceive her and she ends up committing suicide. The point is to read first then discuss with the children”.</p>
Teaching	<p>Teach, explain, advise on Internet use and inculcate preventive attitudes: “I always tell him that anything that you don’t want to tell another person face to face isn’t to be written and sent”, “Let me tell you something, anything you put online is there for the rest of your life; be very careful, don’t trust anybody if they send you an invitation to join with them on WhatsApp. If you respond, always answer with lies”.</p>
Modeling	<p>Instruct by example; learn from adults and older brothers and sisters: “They copy all that they see happening at home”.</p>
Stimulation / encouragement	<p>Encourage self-disclosure: “They should have sufficient confidence in their parents to tell them if they have made a mistake or they have done something wrong”, “Hey, is it</p>



	alright if I watch this program?; you can take time out to explain to them: 'Maybe you don't realize that it's a bit...''.
	Incentives for self-regulation: "They start off joining twenty thousand groups, then they pause, and start to withdraw from groups, especially the ones they know are going to be troublesome; the WhatsApp tone will sound, and quite often they don't pay it any attention".

The choice or combination of mediation strategies selected by the parents depends on the characteristics of their children, such as age and perceived maturity: "I have one older boy who I like to think that, because of his level of education, doesn't need to be controlled so much; he manages himself very well. As for my younger son, if I knew the method for getting him to manage himself, I would patent it; I can see big battles ahead, he is less aware of the risks".

The survey also showed that some parents tend to mediate reactively rather than proactively (forward planning), which they show both when trying to educate ("My son, for example, asks me questions as he goes along, and I answer them") as when imposing restrictions: "When I see her answering somebody using her real name I tell her, 'are you stupid? I've told you not to do that, so there! No more Internet for three months!' and I take it off her again".

### 3.3. Perceived difficulties

When parents try to help their children use the Internet responsibly, they perceive the following difficulties:

- 1) Their own low level of knowledge about how to use the Internet, and that their children know more than them: "I don't know how to do it, my son knows much more about it than I do"; "In my house, the one who knows something about computers is me, I have learnt how to use it, on a very basic level, but I can get by".
- 2) Difficulties in controlling children's use of Internet: "Sometimes you just don't know what to do. I don't know what to do; take it off him. But it doesn't make any difference, he goes and takes the tablet and uses it on there".
- 3) Difficulties in negotiating rules on Internet use with children and up to what age they will abide by them: "There are rules for everything in this life. Another thing is whether you can negotiate them, or use your position of power, but at a certain age, they might no longer be willing to accept them".
- 4) Feeling insecure about how to teach them to live without being addicted to technology: "It's us parents who are in the wrong because we believe that 'they have been taught all they need to know.' We take many things for granted; it's us that need to be insistent in teaching them about the good things and showing them how to avoid the bad. At school, we have seen how children are now suddenly on their own; they get given a cell phone so they can be located, and we have forgotten that our parents had more control over us. The father can locate his son through the cell phone to know where he is, but if it gets stolen...".
- 5) Difficulties in controlling access to the Net in other spaces: "It's like putting up fences in a field (imposing rules); I am trying to get them to understand which content they can see and which not. I can more or less control my daughter of 11, but I have set rules for the older ones. I take the Wi-Fi off them, but they go outside and find another network to connect to".
- 6) Difficulties in planning instruction on how to use the Internet responsibly: "Answering the question of what you have done about planning. I think it's very difficult because you can have an idea, but then your son goes to a friend's house who has an older brother, and I hadn't planned to give them access to the Internet until they were 15, but they have now already been on the Internet. One thing is your idea of responsible use, and another is that they already have access to it".
- 7) Although there are new demands and strains on family-school relations, parents emphasize the importance of the role of the school in the development of pupils' digital competence: "We are very lucky with this school because they deal with this issue well. They give informal chats and our children know what is happening in the real world". One mother who took part, also a teacher at the



school, recognized that the teachers are often overwhelmed by the problems that parents bring to them about how to control Internet access at these young ages: "I am the tutor for a group of third-year primary school pupils. The parents come to me to solve the problem. It's not me that has given them this device, but I must solve the problems that have arisen over the weekend about using it. Is it my responsibility to get involved in these questions, about something that the parents themselves bought for their children? Then they send me messages (via WhatsApp). Don't they have rules? On Saturday at six in the afternoon and I have to solve their problems. What do I do?"

## 4. Discussion and conclusions

The analysis of parents' beliefs regarding their sons' and daughters' use of Internet at primary school age shows that parents are more pessimistic than optimistic, which confirms that it is an issue that concerns them, as is evidenced in other works and cultural contexts (Duggan & al., 2015; Fletcher & Blair, 2014; Sorbring, 2014). The types of negative parental conceptions are, in this order of importance, the concern about the inappropriate use of the Net, the negative consequences of surfing the Internet (social, psychological, academic or physical), the uncertainty that Internet arouses in them as parents, and the risks and uncontrollable nature that they perceive in it. However, they also acknowledge that the use of the internet at this age can have its benefits: 1) It is an aid to children development in areas such as digital competence, self-management, social integration, autonomy, developing a critical attitude and responsibility. 2) It offers endless possibilities for accessing information, for learning, communication, and socialization. 3) It acts as a stimulus for parental supervision. The parents also recognized that the internet was a source of information and guidance for them too.

One contribution of this work is that it has gathered, expressed and publicized the main concerns and mediation practices that families use when trying to adapt themselves to their children's use of Internet at these ages. Our study identifies various support and control strategies used by parents to instruct their children about the benefits and drawbacks of Internet use although the choice of strategy depends on characteristics such as age and perceived maturity, as indicated in previous works (Livingstone & Helsper, 2008; Sorbring, 2014). Parental mediation strategies for control of Internet use include the establishment of rules, organization of the time and space that limits its use, and supervision (direct, agreed-upon, nonagreed-upon and technical). Parental mediation strategies for support range from parental modeling, sibling modeling to teaching strategies for stimulation and communication within the family. These results coincide with those of other works that have found that the most common parental mediation strategies are social rather than just installing professional software on the computer to protect against unsuitable content (Garmendia & al., 2013; Kirwil, 2009; Livingstone & Helsper, 2008). Most of these strategies amount to day-to-day practices that families use to educate and control the behavior of their children in other areas, and which authors have related to the basic positive parental competences (Cheung, 2010; Padilla & al., 2015). This result confirms, as Cheung (2010) suggests, that control and supervision of children's use of Internet form part of a general parenting style, and that the strategies applied to solve problems arising from Internet use do not differ substantially from those used to deal with other problematic behaviors. Therefore, the level of parental self-confidence in supervising and directing their children's use of Internet would increase with the narrowing of the digital divide and the adoption of more effective parenting methods.

In general, parental mediation in the use of Internet tends to be more negative than positive, as evidenced by the amount of advice, rules and prohibitions regarding what children "must not" do when using the Internet rather than what they "should" do in order to make the most of using it, which could be related to parents' low level of Internet knowledge and experience. Our study also found that parental mediation is more reactive than proactive, more a reaction than a previously planned response when instructing their children how to use the Internet correctly, as other works have mentioned (Fletcher & Blair, 2014). When facing what they perceive as unsuitable behaviour, it seems that parents tend to react by both instructing their children and restricting their use of Internet.





Kirwil (2009) suggests that this reactive rather than proactive tendency is related to parenting mediation styles rooted in specific sociocultural contexts and that proactive intervention would be more recommendable when showing their children the benefits of Internet use and drawing attention to its dangers. When the mothers and fathers try to help their children to use the Internet, they perceive difficulties such as their own lack of experience and/or competence in using it. Although some works (Cheung, 2010) have found that even when parents do not know how to use the Internet, they can keep a close watch on their children when going online, other studies have related low digital competence to a lack of confidence in mediating and less awareness of the risks that can await children on Internet (Livingstone & Helsper, 2008). In addition, other authors have found that this adult Internet skill shortage relates to difficulties in providing support, structure and supervision of their children's Internet use, suggesting guided participation of children in the process of learning from the use of Internet is impoverished as the child is not accompanied or regulated by an adult's presence (Padilla & al., 2015). Fletcher and Blair (2014), basing on Mead's theory of societies that follow prefigurative cultural transmission patterns in which change happens so quickly that older generations find themselves disconnected from current social phenomena, conclude that expert knowledge is a fundamental element that minors take into account when evaluating the legitimacy of parental authority in a specific domain and that the progenitors could be experiencing a loss of authority in this area. Parents also perceive other difficulties when negotiating the rules on Internet use, feelings of insecurity about how to teach them to live without dependence on technology, on controlling access in spaces outside the home and planning for teaching them how to use the Internet responsibly. Finally, parents are concerned about the role of schools in the mediation of Internet use among primary school pupils. Other works highlight the lack of communication between schools and parents on questions related to the use of technology, and that families today demand with ever greater insistence advice on how to protect their children from dangerous content on the Internet (Fletcher & Blair, 2014; Livingstone & al., 2015).

The results on parents' beliefs, practices, and difficulties identified in this work point to the need to develop digital competence in parents, and to recognize the specific needs of training parents in three areas: 1) To promote the development of parents' digital skills; 2) To promote parental skills for mediating their children's use of Internet by reinforcing areas such as: organization of time and space, instruction on the risks and benefits, planning ahead to prevent unsuitable behaviour, strengthening parental authority, combining support (stimulation, communication, modelling) with control (rules and limits, supervision, negotiation), education in values of respect, equality, responsibility, critical thinking and autonomy, among others; 3) To promote collaboration between schools and families to increase pupils' digital competence.

Our study shows that there are implications for educational intervention directed at families and schools in our particular context. The first would be the need to design a protocol for joint action between schools and families on the use of Internet in primary education based on consensus between the entire educational community (head teachers, teachers, pupils, and families). The second is directly related to programs for the development of positive parenting which, according to these results, should explicitly integrate measures to improve parental digital competence. The third is that educational policy should recognize the concerns of families on the use of Internet by primary school pupils and provide new resources for training parents, combining various methodologies such as group work, online courses and MOOCs (massive open online courses). This research is limited by the fact that the results cannot be generalized.

Finally, for future lines of research, following the recommendations of the "European strategy for a more suitable Internet for children" (<https://goo.gl/Z7btvQ>), a range of courses and programs have been developed such as "Red.es" (<https://goo.gl/E4NMbk>), "Pantallas Amigas" (<https://goo.gl/rG-3hK>), "Fundación Alia2" (<https://goo.gl/RQc4>), "Fundación ANAR" (<https://goo.gl/CXC4y>) and "Padres 2.0 ONG" (<https://goo.gl/MWEYwx>). However, as several works point out (Kirwil, 2009; Livingstone & al., 2015), more research is needed on the evaluation and efficacy of these programs.



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