**2010**

# Research Study on Internet Education
# Final Report

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5/7/2010

[be NetWise]

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# Executive Summary

## 1. Preamble

The "Be NetWise" Internet Education Campaign delegated the Young Men's Christian Association of Hong Kong, Policy 21 Limited and the Department of Social Work and Social Administration of the University of Hong Kong to conduct a comprehensive study on how parents in Hong Kong guide and supervise their children's use of the Internet. During the period from August 2009 to March 2010, 2,590 parents of children aged 6-17 and 2,295 teenagers aged 10-17 were successfully interviewed. This study had compared the parents and children's views on the possible threats that they could face in using the Internet, as well as their using pattern. Parents' styles in guiding and supervising children's use of the Internet and the problem of Internet addiction concerning the teenagers had also been analyzed deeply in this study.

## 2. Research Findings

We obtained a sample list from the Government. The list is the most-up-to-date, complete and authoritative sampling frame available in Hong Kong.

Face-to-face household interviews were conducted in the study. One parent was interviewed for each household. If the family had children between the ages of 6 and 9 as well as ages of 10 and 17, they had to complete two questionnaires regarding their children from each age group. All the children aged 10-17 were also invited to take part in the study (Table 1 and Table 4).

Parents' digital profile

Among all the interviewed parents with children aged 6-17, a third of them had never used a computer (Table 3). There was no difference in the percentages comparing male and female parents. However, the percentage of parents with Internet knowledge (50.6%) was much lower among parents whose education level was no more than junior secondary.

Also nearly half of the parents (48.2%) with older children (those aged 14-17) had no knowledge in using the Internet at all. The percentage was lower among those with younger children (those aged 10-13) (Table 4).

Parents and children's pattern in using the Internet

The findings of this study indicate that there is a large gap between parents and children in their use of the Internet. While almost all the children had Internet knowledge, the percentage was much lower among parents. Parents might treat the Internet as a tool but it is an important part of life for the children. Seventy percent of the children used it on a daily basis (Table 5), and a quarter of them (28.2%) actually thought they had spent much or too much time on the Internet (Table 6). Thirty to forty percent used the Internet frequently for various types of activities (learning, web-surfing, gaming, leisure). The most frequent usage was connecting with friends (46% said they frequently did so). Very few children said they frequently engaged in blogging and web publishing (Table 7).

### Parent and children's communication on the use of the Internet

Almost all families (98.1%) we interviewed had an Internet-connected computer at home. Sixty percent of the computers were installed in the dining room, and only 15% had a computer installed in the individual bedroom of the children for their sole use. Eighty percent of the children said their parents could easily see their computer screens, but only 38.5% said they would like their parents see what they were doing most of the time. Surprisingly, 40% of the children said they had no online friends, and another 30% said their parents knew none of their online friends. The majority of the children (60%) said they seldom or never talked about their online experience with their parents. Parents concurred with their children in this aspect too (Table 73 to Table 75).

### Internet usage pattern

Overall speaking, parents had a higher estimation of the frequency of their children's use of the Internet in learning/doing homework, web-surfing for interested topics, and playing online game. However, children reported a higher frequency of using the Internet for leisure purposes and connecting with friends. But we can note that there was no difference between them in regard to the frequency of blogging and web publishing (Table 56 to Table 58).

### Parent and children's views about Internet usage

Regarding views about Internet usage, i.e. the amount of time spent in using Internet, half of the parents (50.6%) and over sixty percent of the children (61.5%) thought that the amount of time they spent was "about right". On the other hand, more parents (36.3%) thought that the children spent much or too much time in using Internet than the children themselves (28.2%, see Table 53 to Table 55).

### Risky online behaviour and potential threats

Very few children reported that they involved frequently in risky behaviour on the Internet such as meeting new friends, arranging F2F meeting, telling friends their family information. The most frequently involved risky behaviours were using computer alone without parents around (61.1%) and visiting websites without restriction at home (47.4%, see Table 17).

Only about 50-60% claimed they have heard and aware of various kinds of Internet threats. Cyber bulling was lowest on the list (41.3%) while virus attack was highest (69.2%). Also, 11.2% could be considered as having a medium level of Internet addiction. These children had frequently experienced more than half of the 20 symptoms in an Internet addiction scale.

### Methods and effectiveness in supervising and guiding children

Children reported that restriction was the most common method types for their parents in supervising and guiding them to use the Internet. Among the children, 17.8% expressed that these were frequently used by their parents (those with an average composite score of 4 or 5, Table 29). The other three method types included setting rules (Table 27), involvement (Table 28), and close monitoring (Table 30). Less than 5% of the children indicated that their parents had frequently used these three method types (those with an average composite score of 4 or 5).

Parenting styles

A 30-item parenting style questionnaire was included in the survey to measure the parents' parenting style from the children's perspective (Table 32). There were 13 items covering behaviours related to authoritative parenting style. Also, 9 items are related authoritarian and 4 related permissive parenting style. The children were asked to rate the relevancy of those behaviours to their parents from strongly agree (5) to strongly disagree (1).

Figures implicate that majority of the parents (71.7%) in this study adopted an authoritative parenting style (being clear in their expectations and warm to their children). Thirty-five percent of them adopted an authoritarian parenting style, which emphasizes more on implementing authority and power, while a small percentage of parents (11.4%) adopted a permissive parenting style (Table 33 and Table 36).

Factors affecting parents' ability to help children benefit from Internet and protect them from Internet threats

Findings in this study indicate that over a quarter of the parents interviewed were not satisfied with their own ability to help their children benefit from the use of the Internet and protect them from the threats (Table 87). We found that parents' Internet knowledge, adoption of authoritative parenting style and Internet using pattern, time being together with their children, willingness to help children learn and discover new things, and concern about Internet threats, etc., were factors correlated to their ability to benefit and protect their children with regard to the use of the Internet .

Internet addiction

Internet addiction is a kind of disorder which is similar to other types of substance or behavioural addiction, such as addicted to drugs and gambling. The children interviewed in this study were asked to rate their level of severity in the symptoms enumerated on the 20-item Internet Addiction Scale (IAS). The items covered wide ranges of phenomenon related to compulsive behaviours, withdrawal symptoms, poorer academic performance, neglect of family and social lives, and problems related to health etc (Table 19).

It was found that over one-tenth (11.2%) of the teenagers aged 10-17 were facing medium or high level of risk of Internet addiction (Table 22). We have built an explanatory model to explain Internet addiction based on family factors (family relationship and parenting styles), pattern of computer usage and peer relationship. The model shows that family factors are important in children's risks of Internet addiction. Frequencies in using the Internet, especially in playing online games and connecting with friends, directly contribute to the risks of Internet addiction. Peer relationship, on the other hand, helps reduce the chances (Table 92).

Peer relationships and civic/social participation

A high proportion of children (85.6%) also indicated that they enjoyed very good peer relationship but they were not very active in social and civic activities (Table 40 & Table 42). Only a quarter said they joined school activities frequently. Also, a quarter said they frequently involved in activities with their friends. However only 7.9% said they frequently involved in social/ community centre activities. About three quarters (74.9%) said they could find teachers/ social workers to talk to when in need.

<u>Factors related to social engagement</u>

We have also constructed a model to explain social engagement albeit the explanatory power was not very strong. Again, family factors come out strongly. While playing online games has a negative effect towards social engagement, other forms of Internet usage can promote it. It suggests that family factors are important. Besides, playing online games competes for children's time for social engagement (Table 98).

<u>Children's self-esteem</u>

The model explaining children's self-esteem shows that family factors as well as parent's Internet knowledge play important roles. Peer relationship has a strong contribution to children's self-esteem. Interestingly, playing online games has no effect on their self-esteem, while online leisure activities has a positive effect probably because it enables children to be knowledgeable among their peers. Surprisingly, blogging and web publishing, though not very popular among children, has a negative contribution to children's self-esteem in the model (Table 100).

Family factors play similar roles in children's peer relationship, except for this time, parent's Internet knowledge appears to have no effect. Internet addiction, playing online games has negative effects, while connecting with friends online has a positive one. Social engagement and self-esteem also play a positive role in children's peer relationship in the model.

## 3.  Recommendations

In this study, we can see that family factors (parenting styles, family relationship) play very important roles in children's social well being. While playing online computer games, and to certain extent Internet addiction, has a negative effect in their social well being, other Internet usage had a positive role. In a rapidly changing society enabled by technological innovations and globalization, children are much more likely than their parents to be exposed to new ideas, values, experiences and practices. Given the special demographic characteristics in Hong Kong, in which a substantial proportion of parents had no Internet knowledge, the gap and tensions between parents and children could be envisaged.

In response to the issues addressed above, the current study recommends:

- Promoting parents' Internet knowledge;
- Helping parents to adopt a positive parenting style;
- Promoting better family relationship and family communications;
- Encouraging children to have a more balanced Internet usage and a wider interest in the social world around them;
- Helping children to develop a healthy and balanced lifestyle and to start supervising and guiding children's use of the Internet as early as possible

These recommendations should be helpful in reducing the risks of Internet addiction, and promoting social well beings of children in facing the challenges brought by the rapidly developing digital world.

# Introduction

## Background

The Internet has become an indispensable part of youth life. While it is one of the most important innovations and valuable assets of the century, there is also increasing concern about potential risks posed by the Internet, such as hacking, disclosure of personal privacy, infringement of property and intellectual rights, undesirable contents, cyber-bullying, Internet addiction, etc. It is hoped that young people can enjoy and gain leverage from the wealth of knowledge and information from the Internet in a healthy and safe manner.

In 2009-10 Budget Speech, the Financial Secretary announced that the Government has earmarked $63 million to launch a one-year territory-wide Internet Education Campaign to teach Internet users, especially young users, how to use the Internet appropriately and safely. Targets of the Campaign are primary and lower secondary school students as well as their parents and teachers. The aims of the Campaign are as follows:

a) To foster a better Internet culture among children and youth;
b) To enable teachers, parents, and other stakeholders in the community to better protect children and youth on the Internet;
c) To systematically build resources for education on Internet conduct;
d) To understand and analyse Internet issues so as to devise appropriate and necessary social services for the future;
e) To create employment opportunities for general public in view of the current earthshaking economic downturns; and
f) To enhance both hard and soft career skills of the temporary workers known as Green Internet Ambassadors (GI Ambassadors) so as to prepare them for future career opportunities.

## Proposed research topics

The three proposed research topics are:

a) Comparative studies of risks and behaviour perceptions between parents and youth;
b) Research on Internet addiction; and
c) Social networking and youth social services.

The study of children's Internet behaviours especially the amount of time, places of using the Internet, and the online activities they usually involved gives us a better picture about the Internet culture among children and youth and the potential risks they might have involved. Youth's involvement in the Internet, if uncontrolled and become intense as to be pathological, it would result in Internet addiction. Internet addiction may have adverse impact on youth's learning activities as well as employment, family relationship and social networking. There are studies showing that use of the Internet may reduce youth's "real" interactions with family members and peers, thus restricting youth's social networking. This study will try to shed more light about children and youth's Internet involvement and their real-life involvement in social networking and civic engagement.

It is believed that perception of risks on the part of youth would affect youth's behaviour in the use of the Internet, while parents' perception of risks would affect how parents react to youth's Internet behaviour. The subsequent interactions between parents and youth in turn affect youth's Internet behaviour. An understanding of the perception of risks from both sides allows us to have better knowledge and insight about the Internet behaviour of the children and thus help educators, social service providers to develop better strategies to help parents to protect their children from positive risks from using the Internet.

While the three research studies will be independently conducted, generating useful findings in their own right, they are also interrelated. Findings of one study will shed light on those of the other two, contributing to the existing knowledge on Internet education.

# Study Method

## Proposed framework for the research

### *Comparative studies of risks and behaviour perceptions between parents and youth*

Today, children are born into a world with fast Internet connection as the norm. The Internet arrived in parents' lives only in the last 10 to 15 years, and the fast connection facility even more recently. Net life is essential for school children but worrying about the risk they might encounter has become an important parenting issue for the current generation of parents with young children. It was also found that children spent significantly more time in playing computer games and online leisure activities and reduced their time spent in outdoor activities after having an Internet connection at home[1].

The problem is aggravated because the children tend to be more knowledgeable and skilled in the realm of computers than their parents. This reverses the usual foundation of the authority hierarchy within the family and undermines the parents' ability to exercise discipline and set boundaries.

Threats related to Internet use have been widely discussed in the literature. The Internet's influence on the social life of users is a major area of study[2]. Internet risks relating to excessive Internet usage resulting in Internet addiction are widely researched. In addition, Internet threats such as Internet addictions, infringement of copyrighted materials, sexual solicitation from net-contacts, reading undesirable web materials, leaking family or personal information are frequently reported in the media.

It may also be worth noting that the risks school children are being exposed to while using the Internet have been widely reported. Certain patterns of Internet usage by children such as communicating with strangers, disclosing personal information, visiting websites without restriction, downloading files without knowing the source or consequences, using the Internet as much as they wish are risky and potentially have harmful outcomes[3].

One report claims that one out of seven children aged between 10 and 17 have been sexually solicited on the Internet[4]. Personal information is often collected and sold for various purposes. A local report claims that long hours of using computer is common in Hong Kong and as many as 16% of young people are considered to be suffering from Internet addiction[5].

Furthermore, virus attacks are common experience for most Internet users particularly when downloading materials or software from unknown sources. The actual numbers of

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1 Wong, Y.C., Law, C.K. and Ho, L. S. (2007), *The evaluation study on Computer Recycling Scheme*. Report submitted to HKCSS and Education Bureau, Hong Kong SAR Government: Department of Social Work and Social Administration, The University of Hong Kong.
2 Bargh, J A and Mckenna, K Y A (2004), "The Internet and social life", in *Annual Reviews of Psychology*, 55: 573 – 590.
3 Common Sense Media (2006), *A survival guide for Parents.*
4 Nace, M (2007), "Kids vs Creeps: online safety at home and school", in *Mobility Forum: The Journal of Air Mobility Command's Magazine*, 16(5): 18 – 30.
5 Cheng, C H (2004), *A survey on children's Internet addiction* (in Chinese).

children who experience severe harmful events are few compared with the amount of time school age children spend using the Internet. Nonetheless, it is in the interests of parents and society in general to reduce their exposure to harm even if complete elimination is not possible.

It was noted by researchers that many parents held ambivalent views about the Internet, being aware of its positive educational value but fearful of its "influence" on their children. Some parents were concerned that their children might become "addicted" to the Internet, resulting in social isolation. They also feared that their children might have access to sexually explicit images through the Internet or divulge sensitive information to strangers through the Internet.[6]

Studies conducted in the US showed that both parents and adolescents considered that adolescents were not as careful as they should be in their use of the Internet. More than half of parents and adolescents admitted that adolescents were engaged in Internet activities to which their parents would object. Some of these activities might put the adolescent users and their computers at risk.[7]

In short, this study will examine how children and youth perceived Internet risk and contrast this with perception of parents. Perceptions will inevitably affect behaviour. Parents, depending on the parenting style they adopt, react to the Internet behaviour of their children, which in turn affect the Internet behaviour of their children.

### *Internet addiction*

Internet addiction is an extreme form of Internet usage/behavior through which youth's well being is affected. In this study, attempt will be made to define Internet addiction and examine the various forms of Internet addiction, the characteristics of children and youth indulged in Internet addiction, and the impact of Internet addiction on them.

It is noted a number of instruments were used by researchers to measure Internet addiction. For example, some researchers used the Internet Addiction Scale (IAS), which was a 21-item instrument covering obsessive behavior related to the Internet or chatting, withdrawal symptoms, tolerance, slump in school performance, negligence of family and school life, personal relationship problems, behavioral problems, health trouble, and emotional problems.[8] A simpler version includes for example the 8-item Diagnostic Questionnaire for Internet Addiction developed by Young.[9] In this study, different methods of measuring Internet addiction would also be examined.

In this study, it is proposed to estimate the proportion of children and youth who are at a high risk of Internet addiction. In Korea, for example, researchers estimated that 10% of

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6 Fleming, Michelle and Richwood, Debra (2004), "Teens in cyberspace: do they encounter friend or foe?", in *Youth Studies Australia*, 23(3): 46 – 52.
7 Borzekowski, Dina L G (2006), "Adolescents' use of the Internet: a controversial, coming-of-age resource", in *Adolescent Medical Clinics*, 17(1): 205 – 216.
8 Park, Soo Kyung, et al (2008), "Prevalence of Internet addiction and correlations with family factors among South Korean youth", in *Adolescence,* 43(172): 895 – 909.
9 Johansson, Agneta and Gotestam, K Gunnar (2004), "Internet addiction: characteristics of a questionnaire and prevalence in Norwegian youth (12 – 18 years), in *Scandinavian Journal of Psychology*, 25: 223 – 229.

adolescents were having a high risk of Internet addiction.[10] The rate among high school students in Taiwan was estimated to be around 13%.[11]

Apart from gathering information on the socio-economic characteristics of this group of children and youth, it is also proposed to examine the manner in which they are "addicted" to the Internet. For instance, in Taiwan, Internet café addiction was found by researchers as a particular phenomenon requiring attention.[12]

Furthermore, the impact of Internet addiction on the well-being and social networking of those affected will also be studied. For instance, in a study on Internet addicts and non-addicts in Taiwanese high schools, researchers found that students with personalities characterized by dependence, shyness, depression and low self-esteem were more likely to become addicted than students without these characteristics.[13]

### *Social networking and youth social services*

Researchers noted that children and youth used a variety of Internet applications such as instant messaging and blogs to connect with their peers and to explore typical adolescent issues like sexuality and identity. Given that time was a finite quantity, concerns were raised that time used on the Internet would displace activities such as social interactions with peers and family, substituting strong social ties by weaker ones.[14] Weak social ties generally result in weaker social support than strong ones.

On the other hand, use of the Internet may not be entirely bad for children and youth. Researchers pointed out that such Internet activities as emailing and chatting with school friends would contribute to improved well-being, while chatting with strangers or accessing pornographic materials might threaten well-being.[15]

Studies conducted elsewhere have come up with different results. Some showed that those youth who were lonely or those who did not have good relationship with their family were more likely to form online relationship with someone they did not have close affiliation with. On the other hand, some studies showed that use of the Internet improve relationship with friends. Frequent Internet users were reported to be engaging more in social activities than the less frequent users.[16]

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10 Park, Soo Kyung, et al (2008), "Prevalence of Internet addiction and correlations with family factors among South Korean youth", in *Adolescence,* 43(172): 895 – 909.
11 Yang, Shu Ching and Tung Chieh-Ju (2007), "Comparison of Internet addicts and non-addicts in Taiwanese high schools", in *Computers in Human Behavior*, 23(1): 79 – 96.
12 Wu, Chin-Shan and Cheng, Fei-Fei (2007), "Internet café addiction of Taiwanese adolescents", in *Cyber Psychology and Behavior*, 10(2): 220 – 225.
13 Yang, Shu Ching and Tung Chieh-Ju (2007), "Comparison of Internet addicts and non-addicts in Taiwanese high schools", in *Computers in Human Behavior*, 23(1): 79 – 96.
14 Subrahmanyam, Kaveri and Lin, Gloria (2007), "Adolescents on the Net: Internet use and well-being", in *Adolescence,* 42(168): 659 – 677.
15 Subrahmanyam, Kaveri and Lin, Gloria (2007), "Adolescents on the Net: Internet use and well-being", in *Adolescence,* 42(168): 659 – 677.
16 Fleming, Michelle and Richwood, Debra (2004), "Teens in cyberspace: do they encounter friend or foe?", in *Youth Studies Australia*, 23(3): 46 – 52.

Apart from studying whether the Internet detracts from or increases offline sociability, some researchers also analyzed the role of the Internet in aiding the creation of new relationships from both online and offline. For example, the Internet enabled users to meet new people and make friends whom they would not otherwise have met. The Internet had also changed the ways of communications between people and the ways in which friends were made. Social grades were also not related to making friends online, thus broadening the geographical and social diversity of interpersonal networks.[17]

Needless to say, much depends on the types of Internet use by children and youth. Researchers suggested that it was necessary to divide Internet use into three subtypes, namely asocial activities that did not involve direct contact with other people (e.g. web use), social use of the Internet for contact with the acquainted (e.g. email use) and social use of the Internet for contact with the unacquainted (e.g. chat use). Research conducted in Japan on a longitudinal sample showed that different Internet uses had different impact on social networks. For example, people with more supportive social ties and greater social networks use mobile phone emails more frequently. PC email was useful in maintaining existing social networks and developing social networks, especially those with weaker ties. Participation in online community, however, did not increase the size of social networks. [18]

Motives for using the Internet may also be relevant. Researchers found that increased social support was significantly associated with strong mood management motives for Internet use particularly for information seeking and, to some extent, social compensation, specifically for relationship maintenance. Motives for Internet use in relation to social compensation and mood management were also significantly linked to stress experienced by adolescents and children.[19]

Furthermore, it was recognized by researchers that the Internet has the potential of facilitating the long-term communication needs of youth and the support agencies. With its interactivity and visual impact, the Internet appealed particularly to youth with learning disabilities.[20]

As discussed above, information on Internet use by children and youth as well as their social networking and use of social services will be gathered, with a view to examining the inter-relationship among these variables. In addition to frequency of use, other variables related to Internet usage, including places of using the Internet (e.g. at school, at home or in public venues where Internet access is available), motives for Internet usage and types of Internet applications used (e.g. email, blogs or information browsing) will also be gathered.

17 Di Gennaro, Corinna and Dutton, William H (2007), "Reconfiguring friendships: social friendships and the Internet", in *Information, Communications and Society*, 10(5): 591 – 618.
18 Miyata, Kakuko and Kobayashi, Tetsuro (2008), "Casual relationship between Internet use and social capital in Japan", in *Asian Journal of Social Psychology,* 11: 42 – 52.
19 Leung, Louis (2007), "Stressful life events, motives for Internet use and social support among digital kids", in *CyberPsychology and Behaviour*, 10(2): 204 – 214.
20 Pacifici, Caesar, et al (2005), "Vstreet.com: a web-based community for at-risk teens", in *Child Welfare*, 84(1): 25 – 46.

**Study methodology**

*Target respondents*

The target population of the three studies comprises the following:

a) For the comparative studies of risks and behaviour perceptions between parents and youth, the target population included parents who have children aged 6 – 17, living in land-based, non-institutional, domestic households, as well as their children of age 6 – 17. It is believed that children under the age of 6 in general will not use the Internet on their own. Furthermore, for practical purposes, there are difficulties in interviewing children aged 6 – 9 (or those studying in Primary 1 – 4), so we include only children aged 10 – 17 (or those studying in Primary 5 – 6 and Secondary 1 – 5);

b) For the study on Internet addiction, the target population covered children and youth aged 10 – 17;

c) For the study on social networking and youth social services, the target population covered children and youth aged 10 – 17.

It is noted that not all households have computers and Internet access. According to a survey conducted by the Census & Statistics Department in 2009, about 75.8% of households in Hong Kong had PC and 73.3% of households in Hong Kong had PC connected to the Internet. Given that children of households without PC connected to the Internet could still access the Internet at schools, in their friends' homes or public venues such as libraries or Internet café, this study covered all parents with children aged 6 – 17, regardless of whether the households concerned have Internet access or not, and children aged 10 – 17.

*Household survey*

Advantages of household survey

Higher response rate can be achieved with the use of household survey, minimizing bias due to non-response and facilitating gathering of data from hard-to-contact parents (e.g. those who work long hours). In addition, it is possible to employ a longer questionnaire in a household setting, allowing the survey-takers to gather more detailed information relating to awareness, knowledge, actual use of monitoring techniques, and perceived effectiveness of and satisfaction with the techniques used, as well as a host of intervening variables including child factors (e.g. age, gender and frequency of use of the Internet) and parent factors (e.g. age, educational attainment, income, perception and behaviour).

Furthermore, in a household setting, a variety of interviewing techniques such as the use of prompt cards could help facilitate the interviewing process and reduce response errors, especially with regard to questions that are more complicated. Such an approach is effective especially for parents who do not have good understanding of the various terms and techniques used in guarding against Internet threats. In a face-to-face interview, the interviewers can spend more time explaining to the respondents the questions asked and probing for more considered response.

*The study design*

This study gathered both qualitative and quantitative information for the research topics. Qualitative information was gathered through focus group discussions and interviews, providing insight into factors relevant to the study. Quantitative data was collected through a territory-wide survey on a representative sample of the target population, drawing inferences about the population under study.

Qualitative information

We conducted interviews with social workers and teachers, and focus group discussions with parents and children/youth to gather qualitative information required for the study. Two rounds of interviews and focus group discussions were arranged:

a) The first round was conducted at the commencement of the study. Information gathered facilitated the finalization of the study plan and the drafting of the questionnaires;

b) After quantitative data have been collected from the territory-wide survey, the second round will be carried out to probe further into the findings of the survey.

Focus group discussions

We collected in-depth qualitative information through focus group discussions with children and youth aged 10 – 17. As a general rule, it is desirable to have a cross-section of discussants with different backgrounds to participate in a focus group discussion. For effective participation of the discussants who are young children and adolescents, focus groups involving about 8 – 10 members were organized.

Altogether, we organized 4 focus group interviews with children and youth aged 10 – 17. Two focus group interviews were conducted with children aged 10 – 14 who were attending primary or junior secondary grades. One of the groups was drawn from children living in the Cheung Sha Wan District and the other group for those living in the Tung Chung district. Two focus group interviews were conducted with youth aged 15 – 17 who were attending senior secondary grades. One of the groups was drawn from children living in the Cheung Sha Wan district and the other group living in the Tsim Sha Tsui district.

Focus group discussion guides were prepared prior to the discussions, covering research questions included in the study. The information and insight collected from these focus group discussions help the study team to construct structured-questionnaire for the household survey. Each focus group interview lasted for 60 – 75 minutes was conducted by a consultancy team member and assisted by a research assistant.

Quantitative data

The quantitative data was gathered through a territory-wide household survey of parents and children/youth. Given that the three research studies are closely related, as pointed out above, we designed the household survey in such a manner that three separate sets of quantitative data are collected from parents and children/youth in the same households enumerated in the survey. This allows cross-analysis of variables in the same household setting, greatly enhancing the usefulness of the datasets obtained.

In the following table, the different sets of data items required for the three research studies are depicted. In designing the survey questionnaires, care will be taken to ensure that the questionnaires will not be unduly long to the detriment of data quality. This arrangement will also ensure that the largest possible sample size could be obtained for each of the three research studies.

| Research topics | Parents with children aged 6 – 17 | Children/youth aged 10 – 17 | |
|---|---|---|---|
| | | Internet addicts | Internet non-addicts |
| | Core data on household and personal characteristics | | |
| Comparative studies of risks and behaviour perceptions between parents and youth, | Perceptions and parenting behaviour | Perception and Internet behaviour | Perception and Internet behaviour |
| Internet addiction | | Motives of Internet addiction | |
| | | Well-being | |
| Social networking and youth social services | | | Social networking |
| | | | Use of social services |

Sampling design and sample size

We obtained a sample list from the Government. This is the most up-to-date, complete and authoritative sampling frame available in Hong Kong.

A two-stage systematic sampling design was adopted. For the first stage, a random sample of quarters was selected. With the records of addresses in the sample list first stratified by geographical area and then by type of quarters, the selection of sampling units using systematic sampling technique with fixed sampling intervals and non-repetitive random numbers resulted in a random sample with addresses distributed. For the quarters selected, all households residing in the quarters and parents who had children aged 6 – 17 of the households were covered in the survey.

In the second stage, for households with children aged 6 – 17, the parent who involved in guiding and supervising their children were selected. If both parents had involved, one of them was randomly selected. A total of about 2,500 parents who have children aged 6 – 17 were interviewed. The selection method could be based on the Kish grid method or "birth-day" method, and the latter is preferred because it is relatively simple to use and less intrusive in asking information on the household, compared to the Kish grid method.

Based on the enumeration experiences of the Thematic Household Survey of the Census & Statistics Department, and assuming a response rate of at least 70% and a contact rate of 85%, the estimated number of quarters required to be sampled in order to produce an effective sample size of 2,500 target respondents, is given below:

|  |  |  |
|---|---|---|
| a) | Total number of addresses sampled | 14,150 |
| b) | Estimated number of households sampled (1.01 of (a)) | 14,291 |
| c) | Number of households contacted (85% of (b)) | 12,148 |
| d) | Number of households enumerated (70% of (c)) | 8,503 |
| e) | Estimated number of households with target respondents (29.4% of (d)) [21] | 2,500 |
| f) | Estimated no. of parents interviewed | 2,500 |
| g) | Estimated no. of children/youth interviewed[22] | 2,260 |

In other words, to obtain an effective sample size of 2,500 respondents, about 14,150 addresses are required to be sampled in the first stage. From these addresses, about 8,503 households will be successfully enumerated, of which about 2,500 households will have children aged 6 – 17. A total of about 2,500 parents with children aged 6 – 17. This study intends to interview all the children aged between 10 and 17, and it is expected that 2,260 children/youth at this age range will be interviewed.[23]

With an effective sample size of 2,500, the precision of estimates derived is estimated to be in the region of plus or minus 2.0 percentage points, at 95% confidence, based on simple random sampling. Assuming a prevalence rate of 15% for Internet addiction, about 375 Internet addicts will be interviewed. The precision of estimates derived from a sample of 375 respondents is estimated to be in the region of plus or minus 5.1 percentage points, at 95% confidence, based on simple random sampling.

### *Data analysis approach*

<u>Study level analysis</u>

For each of the three research studies covered in the project, apart from the usual descriptive analysis of the survey findings, we conducted an in-depth analysis making use of statistical analysis techniques, in order to make the best use of the data collected in the project, making references to similar studies conducted overseas.

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21 The percentage of households with children aged 6 – 17 is estimated to be about 29.4%, based on a sub-sample of 791 households obtained from the 2006 Population By-census dataset. This is an updated estimate from the assumed 34% used in the preparation of the tender proposal.

22 Based on a sub-sample of 791 households obtained from the 2006 Population By-census dataset, it is estimated the 27.9% of households with children aged 6 – 17 have 2 children aged 6 – 17 and 3.8% have 3 children or more. For the purposes of the present study, it is estimated that there are about 3,390 children aged 6 – 17 in the 2,500 households enumerated. It is assumed that out of 3,290 children aged 6 – 17, the number of children aged 10 – 17 is about 2,260.

23 The fieldwork operation of this project will be integrated with another project undertaken by the Department of Social Work and Social Administration of the University of Hong Kong and Policy 21 on how parents guide and supervise their children's use of the Internet, such that the same households will be enumerated in both projects. Through such integration, the effectiveness of data collection will be raised, permitting an increase in the sample size of the current project from 1,500 to 2,500 households. Data analysis will be enhanced as data obtained from the two projects could be cross-analyzed.

For example, in studying the characteristics of youth addicted to Internet use, researchers found that, with forward regression analysis techniques, Internet addiction was significantly related to places of Internet access, Internet use habits and types of activities on the Internet.[24]

In another study, using regression analysis, researchers showed that the more adolescents used ICQ, the more they were motivated to use the Internet for social compensation, especially relationship maintenance.[25]

In analyzing the relationship of Internet use and social networks, with the use of multivariate analysis and after controlling for gender, age, education, occupation, years of residence and marital status, researchers found that users of PC emails had a larger social networks than non-users. Researchers further examined the casual relationships between Internet use and social networks, with the use of structural equation modeling, and found that, among other things, the use of PC emails increased the size of social networks.[26]

Inter-studies analysis

Apart from data analysis for each of the three individual research studies, we conducted further analysis by cross-referencing data collected from the three research studies. It is noted that for example, family relationship and Internet use by children are closely related. A study conducted in Korea indicated that, by analyzing between groups correlation for different groups of children and different family relationship, not only protective factors (e.g., parenting attitudes, family communication, and family cohesion) but also risk factors of family violence (e.g., marital violence and parent-to-child violence) were strongly associated with Internet addiction.[27] In another study on youth's Internet usage, researchers found that through the use of bivariate logistic analysis, youth's use of the Internet to access health information was positively correlated with youth's positive belief on getting health check-up.[28]

When we have the full set of data in a later stage, we will examine in what way and to what extent the protective and risk facts are associated with Internet addiction of the young people in Hong Kong as well as whether the amount of time spent in using the Internet has any impact on their social and civic participation.

Proposed data analysis approach

To sum up the above discussions, the following data analysis approach is used:

a) Descriptive analysis, showing percentage distributions, means and other statistical measures such as standard deviations, and where applicable, the compilation of

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24 Johansson, Agneta and Gotestam, K Gunnar (2004), "Internet addiction: characteristics of a questionnaire and prevalence in Norwegian youth (12 – 18 years), in *Scandinavian Journal of Psychology*, 25: 223 – 229.

25 Leung, Louis (2007), "Stressful life events, motives for Internet use and social support among digital kids", in *Cyberpsychology and Behaviour*, 10(2): 204 – 214.

26 Miyata, Kakuko and Kobayashi, Tetsuro (2008), "Casual relationship between Internet use and social capital in Japan", in *Asian Journal of Social Psychology*, 11: 42 – 52.

27 Park, Soo Kyung, et al (2008), "Prevalence of Internet addiction and correlations with family factors among South Korean youth", in *Adolescence,* 43(172): 895 – 909.

28 Bleakly, Amy, et al (2004), "Computer access and Internet use among urban youths", in *American Journal of Public Health",* 94(5): 744 – 746.

summary indexes, for different data items across different population sub-groups;

b) Bivariate and multivariate analysis to unravel relationships between variables under study;

c) Structural equation modeling, or principal component analysis and path analysis to explore the underlying structure of variables and the casual relationship among variables or latent variables.

# Findings

## Enumeration results

Table 1 and Table 2 present the enumeration results. Out of the 18,611 addresses, 3,641 of them had children between the age of 6 and 17. We successfully interviewed 2,590 of them representing a response rate of 71.1%. In these 2,590 addresses, 2,098 of them had a child aged between 10 and 17.

Table 1 Enumeration results of the parents as at December 21, 2009

| (A) | **Total number of addresses sampled** | | **18611** |
|---|---|---|---|
| (B) | **Invalid cases (No.)** | | **14970** |
| | *(1)* | *Non-residential* | 290 |
| | *(2)* | *Sampled quarters unoccupied* | 706 |
| | *(3)* | *No family members aged 6-17* | 13908 |
| | *(4)* | *Sampled addresses cannot be located* | 28 |
| | *(5)* | *Non-Cantonese, Non-Putonghua, Non-English speaking* | 38 |
| (C) | **Valid cases (No.)** | | **3641** |
| | (1) | *Successfully enumerated* | **2590** |
| | (2) | *Non-contact* | 487 |
| | (3) | *Refusal* | 564 |
| (D) | **Response rate (%) [i.e. C(1) / (C)]** | | **71.1%** |
| | **Non-contact rate (%) [C(2) / (C)]** | | **13.4%** |
| | **Refusal rate (%) [C(3) / (C)]** | | **15.5%** |

Table 2 Final enumeration results of the children as at April 6, 2010 based on the valid addresses which we had successfully interviewed their parents.

| (A) | **Valid cases   (No.)** | | **2098** |
|---|---|---|---|
| | (1) | Successfully enumerated | **1837** |
| | (2) | Cases not successfully enumerated | **261** |
| | | *(i)    Non-contact* | 112 |
| | | *(ii)   Refusal* | 149 |
| (B) | (1) | **Non-contact (%)** [(C)(2)(i) / (C)] | 5.3% |
| | (2) | **Non-contact rate (%)** [(C)(2)(ii) / (C)] | 7.1% |
| (C) | **Response rate (%)  [i.e. C(1) / (C)]** | | **87.6%** |

**Children's situations**

*Background and computer usage pattern respondents*

Table 4 shows the background information of the children interviewed in this study. These are figures on the age cohorts they belonged to, as well as their schooling by their parents' knowledge on the Internet. It is shown that only 56.7% of their parents of these children knew how to use the Internet, and 43.3% of the parents did not have knowledge on using the Internet. Also, we can see that the parents of the older children (14-17) tend to have less knowledge of the Internet (48.2% had no Internet knowledge compared with 36.7% among parents with younger children). Since many of the parents of the older children are older than those with young kids, they would have less knowledge on the Internet. This is consistent with previous studies about the weakness in digital inclusion among older people.

Table 3 Number of parents who have used computer before (parents with children aged 6-17)

| | Educational attainment of parents (*N* = 2556) | | | | Sex of parent (*N* = 2579) | | | | Total (*N* = 2579) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | ≦**Junior secondary** | | ≧ **Senior secondary** | | **Male** | | **Female** | | | |
| | *no.* | *%* | *no.* | *%* | *no.* | *%* | *no.* | *%* | *no.* | *%* |
| **Yes** | 700 | 50.6 | 1012 | 86.3 | 603 | 66.2 | 1118 | 67.0 | 1721 | 66.7 |
| **Never** | 684 | 49.4 | 160 | 13.7 | 308 | 33.8 | 550 | 33.0 | 858 | 33.3 |

Table 4 Background of respondents (parents with children aged 10-17)

| | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *%* | *%* | *N* | *%* |
| **Gender (Children)** | | | | | | | | | | | | |
| Boy | 203 | 56.4 | 322 | 50.9 | 339 | 54.6 | 338 | 49.6 | - | - | 1202 | 52.4 |
| Girl | 157 | 43.6 | 311 | 49.1 | 282 | 45.4 | 343 | 50.4 | - | - | 1093 | 47.6 |
| **Sub-total** | 993 (43.3%) | | | | 1302 (56.7%) | | | | | | 2295 (100%) | |
| **Gender (Parents)** | | | | | | | | | | | | |
| Male | 131 | 36.4 | 216 | 34.1 | 201 | 32.4 | 243 | 35.7 | 36.7 | 32.0 | 791 | 34.5 |
| Female | 229 | 63.6 | 417 | 65.9 | 420 | 67.6 | 438 | 64.3 | 63.3 | 68.0 | 1504 | 65.5 |
| **Sub-total** | Male (347, 43.9%) Female (646, 43.0%) | | | | Male (444, 56.1%) Female (858, 57.0%) | | | | | | 2295 (100%) | |
| **Age** | | | | | | | | | | | | |
| 10-13 | 360 | 36.7% | 633 | 48.2 | 621 | 63.3% | 681 | 51.8 | 45.1 | 40.2 | 981 | 42.7 |
| 14-17 | | | | | | | | | 54.9 | 59.8 | 1314 | 57.3 |
| **Education (Children)** | | | | | | | | | | | | |
| ≦Junior sec | 360 | 100.0 | 202 | 31.9 | 621 | 100.0 | 224 | 32.9 | 64.1 | 58.2 | 1407 | 61.3 |
| ≧Senior sec | 0 | .0 | 431 | 68.1 | 0 | .0 | 457 | 67.1 | 35.9 | 41.8 | 888 | 38.7 |
| **Total** | 360 | 100.0 | 633 | 100.0 | 621 | 100.0 | 681 | 100.0 | - | - | 2295 | 100.0 |

Table 5 shows that a majority of the children use the Internet. It shows that 70.5% of them use the Internet at least once every day, and most of the others also use it at least once a week (26.6%). These represented that it was becoming more popular for children aged 10-17 to use the Internet on regular basis, and it became a crucial part of their daily lives. In terms of children's age, higher proportion of the older children used the Internet daily than the younger ones. This was largely due to the fact that older children have higher demand for doing homework and connecting with peers. On the contrary, their younger counterparts relied less on the Internet in doing homework and communicating with friends.

As for parents' knowledge of the Internet, it had little impact on children's Internet usage. This might be because all children today had identical demand for using the Internet (e.g. schoolwork and interacting with friends, as we will review in later parts of this report), regardless of their parents' background. Besides, the difference between boys and girls was not obvious as well, which was most likely due to the same reasons.

Table 5 Pattern of Internet usage (QII1 to QII2)

| | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *%* | *%* | | |
| **Internet usage (No. of times)** | | | | | | | | | | | | |
| 1 to several a day | 219 | 60.8 | 491 | 77.6 | 369 | 59.4 | 539 | 79.1 | 73.4 | 67.3 | 1618 | 70.5 |
| 1 to several a week | 120 | 33.3 | 131 | 20.7 | 227 | 36.6 | 133 | 19.5 | 24.0 | 29.6 | 611 | 26.6 |
| 1 to several a mth | 13 | 3.6 | 6 | .9 | 19 | 3.1 | 6 | .9 | 1.6 | 2.3 | 44 | 1.9 |
| 1 to several/ 3 mths | 7 | 1.9 | 4 | .6 | 5 | .8 | 2 | .3 | .7 | .8 | 18 | .8 |
| Not sure | 1 | .3 | 1 | .2 | 1 | .2 | 1 | .1 | .3 | .0 | 4 | .2 |
| **Average time a day (hrs)** | | | | | | | | | | | | |
| | (M, SD) | | (M, SD) | | (M, SD) | | (M, SD) | | (M, SD) | | (M, SD) | |
| During schools | (1.78, 1.47) | | (2.67, 1.77) | | (1.46, 1.32) | | (2.54, 1.62) | | (2.27, 1.73) | (2.05, 1.55) | (2.17, 1.65) | |
| During holidays | (3.31, 2.43) | | (4.49, 2.50) | | (2.76, 2.14) | | (4.20, 2.53) | | (4.01, 2.64) | (3.47, 2.32) | (3.75, 2.51) | |
| **Total** | 360 | 100.0 | 633 | 100.0 | 621 | 100.0 | 681 | 360 | 100.0 | 633 | 100.0 | 621 |

As for their views on Internet usage (Table 6), most of the respondents thought that they were "about right" in spending the amount of time in using the Internet (62.4%), and 23.3% of them answered "much". We can see from the table that there was very little difference between those older children who have parents with or without Internet knowledge. But as the younger children of parents knowing the Internet might receive closer monitoring from their parents in using the Internet, more of them thought they were "about right" in Internet usage, as in contrast with children of parents not knowing the Internet (67.6% vs. 61.1%). A higher proportion of younger children of parents without Internet knowledge said they had used the Internet "too much" (6.7%), comparing with only 2.1% for children of the Internet-literate parents thought so.

Table 6 Views about Internet usage (QII3)

| **Amount of time spent in using the Internet** | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *%* | *%* | | |
| Too little | 17 | 4.7 | 12 | 1.9 | 8 | 1.3 | 3 | .4 | 1.6 | 1.9 | 40 | 1.7 |
| Little | 38 | 10.6 | 30 | 4.7 | 65 | 10.5 | 36 | 5.3 | 6.8 | 8.0 | 169 | 7.4 |
| About right | 220 | 61.1 | 375 | 59.2 | 420 | 67.6 | 417 | 61.2 | 60.6 | 64.4 | 1432 | 62.4 |
| Much | 60 | 16.7 | 174 | 27.5 | 108 | 17.4 | 192 | 28.2 | 24.6 | 21.8 | 534 | 23.3 |
| Too much | 24 | 6.7 | 36 | 5.7 | 13 | 2.1 | 30 | 4.4 | 5.6 | 3.3 | 103 | 4.5 |
| No opinion | 1 | .3 | 6 | .9 | 7 | 1.1 | 3 | .4 | .8 | .6 | 17 | .7 |
| **Total** | 360 | 100.0 | 633 | 100.0 | 621 | 100.0 | 681 | 100.0 | - | - | 2295 | 100.0 |

As far as the children's frequency of Internet usage is concerned (Table 7), the item that most respondents selected was "connect with friends", like communicating through MSN, email, and Facebook, etc. (46.6%). This was particularly popular among the older ones. Their second most frequent activity on the Internet is surfing for interested topics online (39.9%). Of this group of children, those who were in the 10-13 age range were much less active in this kind of activity than the older ones. Their parents' Internet proficiency was not a crucial factor in

affecting the results, but it might be because they were not old enough to seek knowledge and look for something interesting to them through the Internet.

Learning and doing homework on the Internet was the third most frequent activity for them (38%). Figures show that older children of both Internet-literate and illiterate parents had equal level of Internet usage for learning and homework purposes. But for the younger children, the difference was more obvious (8.6%) in terms of parents' Internet knowledge – those children whose parents with Internet knowledge used the Internet for learning and homework purposes more frequently. We could explain that parents with Internet knowledge would understand more about the importance of the Internet in academic for the younger generations, so they might have had given more guidance in facilitating the kids to use the Internet more on learning and homework purposes. On the other hand, parents without Internet knowledge might have lower realization of this learning method (33.3%), so their children were less frequent in using the Internet for learning and more for playing online games instead (35.8%). Only 32.4% of the children of parents with Internet knowledge used the Internet to play online games frequently.

Table 7 Frequency of Internet usage (frequently/ always) (QII4a to QII4g)

| Frequently/ always use the Internet to | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| a. Search info. for learning/ doing homework | 120 | 33.3 | 235 | 37.1 | 260 | 41.9 | 256 | 37.6 | 32.6 | 43.8 | 871 | 38.0 |
| b. Web-surfing for interested topics | 103 | 28.6 | 324 | 51.2 | 160 | 25.8 | 329 | 48.3 | 39.9 | 40.0 | 916 | 39.9 |
| c. Play online games | 129 | 35.8 | 188 | 29.7 | 201 | 32.4 | 182 | 26.7 | 45.2 | 14.4 | 700 | 30.5 |
| d. Leisure (music, radio, video, TV program) | 96 | 26.7 | 286 | 45.2 | 147 | 23.7 | 289 | 42.4 | 33.4 | 38.2 | 818 | 35.6 |
| e. Connect with friend (e.g. MSN, email, Facebook) | 111 | 30.8 | 377 | 59.6 | 175 | 28.2 | 406 | 59.6 | 40.2 | 53.6 | 1069 | 46.6 |
| f. Blogging/ Website publishing | 14 | 3.9 | 45 | 7.1 | 25 | 4.0 | 58 | 8.5 | 3.5 | 9.1 | 142 | 6.2 |

Figures in Table 8 shows that most children claimed they were on "medium level" in terms of understanding on the use of the Internet (64%). A further 21.2% told that they were only beginners. Among those who claimed to be on medium level, factors like age and parents' Internet knowledge were not influential. There were no big differences between the younger children from both groups in terms of level of understanding. It might be owing to the enhancement of computer education at schools and more digital inclusion programmes available for the younger children, measures which were not that popular during the early years of their elder siblings.

Table 8 Level of understanding on the use of the Internet (QII5)

| Level of understanding | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| No understanding | 10 | 2.8 | 5 | .8 | 7 | 1.1 | 2 | .3 | 1.2 | .9 | 24 | 1.0 |

| | Parent without Internet knowledge 10-13 n | % | 14-17 n | % | Parent with Internet knowledge 10-13 n | % | 14-17 n | % | Gender boy % | girl % | Total N | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beginner | 134 | 37.2 | 80 | 12.6 | 239 | 38.5 | 74 | 10.9 | 25.0 | 20.7 | 527 | 23.0 |
| Medium level | 183 | 50.8 | 462 | 73.0 | 312 | 50.2 | 512 | 75.2 | 62.2 | 66.0 | 1469 | 64.0 |
| Advanced level | 5 | 1.4 | 41 | 6.5 | 14 | 2.3 | 52 | 7.6 | 6.1 | 3.6 | 112 | 4.9 |
| Don't know/ difficult to say | 28 | 7.8 | 45 | 7.1 | 49 | 7.9 | 41 | 6.0 | 5.5 | 8.9 | 163 | 7.1 |
| **Total** | 360 | 100.0 | 633 | 100.0 | 621 | 100.0 | 681 | 100.0 | - | - | 2295 | 100.0 |

Table 9 and Table 10 show the popularity of home computer and Internet connection among these children. It is shown that 98% of them had computers at home; all of them had their home computers connected to the Internet. Generally, more children of parents with Internet knowledge had computers at home than those of parents without Internet knowledge. It is very obvious that those parents knowing the Internet had the need to use computers at home themselves, so that their children would also be able to use computers at home. Generally speaking, higher percentage of older children had computers at home than their younger counterparts, largely due to their higher demand in daily lives.

Most of the children having Internet connection at home were using broadband (86.6%) and only 1.4% of them were having non broadband connection. A further 12% of them indicated they did not know what type of Internet connection they had. The issue of parents' knowledge on the Internet had no strong implication to what type of Internet connection they used. However, what we have to point out is the implication of children's age. It was obvious that there were fewer younger children having broadband connection, probably due to the different requirements about the quality of Internet connection between younger and older children.

Moreover, those children whose parents had no Internet knowledge and the younger ones accounted for higher proportion of the group who did not know what type of Internet connection they were using, although the difference was not that obvious. We could say that the younger children and those with Internet-illiterate parents were less sensitive to technology, therefore they could not explain clearly about the services they were using at the time of interview.

Table 9  Whether had a computer at home (QIII1)

| Had a computer | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| Yes | 339 | 94.2 | 624 | 98.6 | 610 | 98.2 | 679 | 99.7 | 98.2 | 98.1 | 2252 | 98.1 |
| No | 21 | 5.8 | 9 | 1.4 | 11 | 1.8 | 2 | .3 | 1.8 | 1.9 | 43 | 1.9 |
| **Total** | 360 | 100.0 | 633 | 100.0 | 621 | 100.0 | 681 | 100.0 | - | - | 2295 | 100.0 |

Table 10 Whether the computer had Internet connection QIII2)

| Internet connection at home | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2252) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| Yes | 339 | 100.0 | 624 | 100.0 | 610 | 100.0 | 679 | 100.0 | 100.0 | 100.0 | 2252 | 100.0 |
| Broadband | 273 | 80.5 | 562 | 90.1 | 498 | 81.6 | 617 | 90.9 | 87.5 | 85.6 | 1950 | 86.6 |
| Non broadband | 6 | 1.8 | 6 | 1.0 | 9 | 1.5 | 11 | 1.6 | 1.4 | 1.5 | 32 | 1.4 |
| Don't know | 60 | 17.7 | 56 | 9.0 | 103 | 16.9 | 51 | 7.5 | 11.2 | 12.9 | 270 | 12.0 |
| No | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| **Total** | 339 | 100.0 | 624 | 100.0 | 610 | 100.0 | 679 | 100.0 | - | - | 2252 | 100.0 |

Most of the children being interviewed in this study did not have computers in individual bedrooms (Table 11). More than 80% of them had to use computers in common areas like dinning/living rooms and shared bedrooms. Only 15% of them had computers in individual rooms. Overall, the older children had more private spaces in using computers than the younger ones. This might be because of the parents' different arrangements for younger and older children regarding where to put computers at home. Parenting measures thus tended to be less restrictive as children grew older, as they had more privatized spaces for using computers. Also parents without Internet knowledge tended to put the computers in common areas. It might be due to their economic conditions and income, factors that were crucial to determine the size of their homes.

Table 11 Places at home to use the computer (QIII3)

| Places to use computer at home | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2252) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| Individual bedroom | 48 | 14.2 | 100 | 16.0 | 66 | 10.8 | 123 | 18.1 | 14.2 | 15.9 | 337 | 15.0 |
| Shared bedroom | 58 | 17.1 | 132 | 21.2 | 150 | 24.6 | 158 | 23.3 | 21.3 | 23.0 | 498 | 22.1 |
| Dinning/ living room | 229 | 67.6 | 388 | 62.2 | 378 | 62.0 | 391 | 57.6 | 63.3 | 59.6 | 1386 | 61.5 |
| Other places | 2 | .6 | 1 | .2 | 3 | .5 | 0 | .0 | .2 | .4 | 6 | .3 |
| No opinion | 2 | .6 | 3 | .5 | 13 | 2.1 | 7 | 1.0 | 1.1 | 1.1 | 25 | 1.1 |
| **Total** | 339 | 100.0 | 624 | 100.0 | 610 | 100.0 | 679 | 100.0 | - | - | 2252 | 100.0 |

*Parents and computer usage at home*

Table 12 and Table 13 show the children's opinion on privacy issues with respect to using computer at home. A predominate number of children's computer screens could be seen easily by their parents, particularly by parents who knew the Internet (Table 12). Almost 60% of the children interviewed were "sometimes" willing to let their parents see the computer screen when they were using it ("most of the time" and "sometimes") (Table 13). A further 18% of them thought it was alright for their parents to see their screens occasionally. Only about 9% of them definitely did not want their parents to do so. Opinions were quite consistent between children of parents with different Internet literacy, but children were comparatively more willing to let their parents to see the screens if their parents knew the Internet. But what is worthwhile to point out here is that this pattern shows the older children were less agreeable about parents viewing the screens while they were using computer than the younger ones. We can explain that because these older children had stronger sense of privacy and were more involved in interpersonal communications on the Internet, therefore they thought that it was less acceptable for parents to see their online activities, worrying about intervention of their privacy.

Table 12 Whether parents can see the computer screen when you use the computer (QIII4)

| Whether able to see the screen | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | *N* | *%* |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *%* | *%* | | |
| Yes, easily | 311 | 86.4 | 509 | 80.4 | 538 | 86.6 | 554 | 81.4 | 82.4 | 84.3 | 1912 | 83.3 |
| Yes, with some efforts | 28 | 7.8 | 78 | 12.3 | 59 | 9.5 | 101 | 14.8 | 12.8 | 10.2 | 266 | 11.6 |
| No | 20 | 5.6 | 45 | 7.1 | 19 | 3.1 | 24 | 3.5 | 4.2 | 5.2 | 108 | 4.7 |
| No opinion | 1 | .3 | 1 | .2 | 5 | .8 | 2 | .3 | .5 | .3 | 9 | .4 |
| **Total** | 360 | 100.0 | 633 | 100.0 | 621 | 100.0 | 681 | 100.0 | - | - | 2295 | 100.0 |

Table 13 Do you want your parent to see your computer screen when you were using it? (QIII5)

| Whether you want it or not | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | *N* | *%* |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *%* | *%* | | |
| Definitely no, never | 28 | 7.8 | 67 | 10.6 | 32 | 5.2 | 75 | 11.0 | 9.0 | 8.6 | 202 | 8.8 |
| Yes, occasionally | 59 | 16.4 | 148 | 23.4 | 70 | 11.3 | 124 | 18.2 | 17.0 | 18.0 | 401 | 17.5 |
| Yes, sometimes | 110 | 30.6 | 221 | 34.9 | 185 | 29.8 | 258 | 37.9 | 34.1 | 33.3 | 774 | 33.7 |
| Yes, most of the time | 106 | 29.4 | 132 | 20.9 | 214 | 34.5 | 148 | 21.7 | 26.8 | 25.4 | 600 | 26.1 |
| Definitely, almost always | 54 | 15.0 | 58 | 9.2 | 112 | 18.0 | 60 | 8.8 | 12.1 | 12.7 | 284 | 12.4 |
| Never mind | 2 | .6 | 3 | .5 | 7 | 1.1 | 13 | 1.9 | .7 | 1.5 | 25 | 1.1 |
| No opinion | 1 | .3 | 4 | .6 | 1 | .2 | 3 | .4 | .3 | .5 | 9 | .4 |
| **Total** | 360 | 100.0 | 633 | 100.0 | 621 | 100.0 | 681 | 100.0 | - | - | 2295 | 100.0 |

When being asked about whether their parents knew their online friends, it was very interesting to know that nearly 40% of them told that they had no online friends, especially for the younger children aged 10-13. Very few parents either knew almost all or most of their children's online friends.

For the reasons behind these figures, we infer that it was not the practice for many of the

children interviewed in this study to make friends on the Internet; they only communicated with their existing friends online, so 40% of them said they had no online friends. The rate of parents knowing their online friends was very low (for both groups of parents), because the parents were possibly not aware of their children having friends online, or they were not interested in taking the initiative to know those online friends.

Table 14  Whether parents know your online friends (QIII6)

| No. of your online friends your parents know | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| None | 82 | 22.8 | 276 | 43.6 | 101 | 16.3 | 252 | 37.0 | 32.8 | 29.0 | 711 | 31.0 |
| Very few | 35 | 9.7 | 84 | 13.3 | 63 | 10.1 | 96 | 14.1 | 13.6 | 10.4 | 278 | 12.1 |
| Some | 29 | 8.1 | 50 | 7.9 | 65 | 10.5 | 77 | 11.3 | 8.7 | 10.6 | 221 | 9.6 |
| Most | 18 | 5.0 | 26 | 4.1 | 60 | 9.7 | 40 | 5.9 | 4.7 | 8.0 | 144 | 6.3 |
| Almost all | 12 | 3.3 | 4 | .6 | 10 | 1.6 | 3 | .4 | 1.2 | 1.3 | 29 | 1.3 |
| No online friends | 183 | 50.8 | 191 | 30.2 | 320 | 51.5 | 211 | 31.0 | 38.4 | 40.5 | 905 | 39.4 |
| No opinion | 1 | .3 | 2 | .3 | 2 | .3 | 2 | .3 | .4 | .2 | 7 | .3 |
| **Total** | 360 | 100.0 | 633 | 100.0 | 621 | 100.0 | 681 | 100.0 | - | - | 2295 | 100.0 |

Same as the question on whether parents know the children's online friends, it was also shown that very few parents had communications with children regarding their Internet activities. 60% of them had few dialogues or never talked about what they had done on the Internet with their parents (Table 15). Though parents' knowledge of computer could be helpful, as we can see that in general, more Internet-literate parents had communications with their children's Internet activities than those without knowledge, it was very clear that parent-children communications about Internet activities were very weak. Further measures for enhancing digital inclusion among the Hong Kong parents and their computer knowledge are needed in the future.

Table 15 Whether talk about what you have done on the Internet with parents (QIII7)

| Talk about it with your parents | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| Never/ very rarely | 95 | 26.4 | 190 | 30.0 | 117 | 18.8 | 149 | 21.9 | 26.2 | 21.6 | 551 | 24.0 |
| Few/ infrequently | 121 | 33.6 | 286 | 45.2 | 166 | 26.7 | 251 | 36.9 | 36.3 | 35.5 | 824 | 35.9 |
| Sometimes | 119 | 33.1 | 144 | 22.7 | 287 | 46.2 | 259 | 38.0 | 33.6 | 37.1 | 809 | 35.3 |
| Frequently | 15 | 4.2 | 10 | 1.6 | 39 | 6.3 | 16 | 2.3 | 2.5 | 4.6 | 80 | 3.5 |
| Almost always | 7 | 1.9 | 1 | .2 | 11 | 1.8 | 5 | .7 | 1.1 | 1.0 | 24 | 1.0 |
| No opinion | 3 | .8 | 2 | .3 | 1 | .2 | 1 | .1 | .3 | .3 | 7 | .3 |
| **Total** | 360 | 100 | 633 | 100 | 621 | 100 | 681 | 100 | - | - | 2295 | 100 |

Table 16 has revealed the overall situation of where the children would use the Internet outside home. Most of them would go online in schools, and very few of them used the Internet in libraries and community centres, if they had to use it away from home. School was so popular among these children because it was a more convenient and comfortable environment for them. In usual settings, users have to wait for using computers in community centres and libraries,

and the time is strictly limited. For most of the schools, students can usually stay behind for a while after school hours, and the facilities are generally more suitable for them. Therefore, the children who took part in this study tended to go online at schools when they were away from home.

Table 16 Places to go online other than home (QIII8)

| Places to go frequently almost always | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | | |
| | n | % | n | % | n | % | n | % | % | % | N | % |
| a. School | 59 | 16.4 | 69 | 10.9 | 88 | 14.2 | 76 | 11.2 | 13.7 | 11.6 | 292 | 12.7 |
| b. Community centers | 3 | 0.8 | 3 | 0.5 | 3 | 0.5 | 2 | 0.3 | 0.7 | 0.3 | 11 | 0.5 |
| c. Library | 5 | 1.4 | 5 | 0.8 | 9 | 1.4 | 3 | 0.4 | 1.2 | 0.7 | 22 | 1.0 |
| d. Friends/relatives' home | 10 | 2.8 | 18 | 2.8 | 8 | 1.3 | 17 | 2.5 | 2.4 | 2.2 | 53 | 2.3 |
| e. Internet Café | 5 | 1.4 | 17 | 2.7 | 2 | 0.3 | 11 | 1.6 | 2.3 | 0.6 | 35 | 1.5 |
| f. MTR stations & other public places | 1 | 0.3 | 1 | 0.2 | 1 | 0.2 | 0 | 0.0 | 0.2 | 0.1 | 3 | 0.1 |
| g. Others | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |

### *Internet behaviours*

Regarding the Internet risks they had encountered, most of these children used computer alone without their parents around, and visited websites without restriction at home (Table 17). These were particularly common for children of parents without Internet knowledge, since their parents might be less sensitive to potential risks that their children might encounter on the Internet. For the children whose parents knew how to use the Internet, they had more chances to download software and materials onto their computers, activities that fewer children with parents without Internet knowledge would do online, so they encountered risks more frequently than others. Very few children indicated that they had ever involved in the more risky acts, like meeting new friends online and providing them with personal information. Therefore, we can see that generally children using the Internet in Hong Kong were not usually involved in risky online activities.

Table 18 shows the children's awareness of possible threats in using the Internet. Nearly 70% of them concerned about virus infections and malicious software, and exposure to undesirable materials ranked the second. The patterns between children of parents with/without Internet knowledge and age of the children were more or less identical without obvious difference. Internet addiction was not as much an issue of concern as other issues related to safety, illegal activities and exposure to indecent materials. But we have to note that the younger children were less aware of being addicted to the Internet than their elder siblings. They were the ones who needed more guidance as they were growing up. Also for cyber-bullying, which has recently become an issue of concern in the public, had comparatively received little attention from the children, and also the parents as indicated in the results from the survey for parents. A further emphasis and public education on this kind of risk is needed.

Table 17 Internet risks (QIV1)

| **Have done this frequently/almost always** | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | *N* | *%* |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *%* | *%* | | |
| a. Met new friends on the Internet | 0 | 0.0 | 13 | 2.1 | 3 | 0.5 | 7 | 1.0 | 0.8 | 1.2 | 23 | 1.0 |
| b. Arranged F2F gatherings with friends met first on the Internet? | 1 | 0.3 | 7 | 1.1 | 0 | 0.0 | 4 | 0.6 | 0.5 | 0.5 | 12 | 0.5 |
| c. Told friends met first on the Internet about info. of your family | 0 | 0.0 | 4 | 0.6 | 0 | 0.0 | 1 | 0.1 | 0.2 | 0.3 | 5 | 0.2 |
| d. Downloaded/ installed software onto your computer | 26 | 7.2 | 118 | 18.6 | 28 | 4.5 | 127 | 18.6 | 15.8 | 10.0 | 299 | 13.0 |
| e. Downloaded materials (songs and photos, etc) onto your computer | 32 | 8.9 | 157 | 24.8 | 58 | 9.3 | 184 | 27.0 | 18.1 | 19.5 | 431 | 18.8 |
| f. Visit websites without restriction at home | 114 | 31.7 | 376 | 59.4 | 195 | 31.4 | 403 | 59.2 | 46.8 | 48.0 | 1088 | 47.4 |
| g. Used the computer alone without your parents around | 166 | 46.1 | 479 | 75.7 | 262 | 42.2 | 495 | 72.7 | 59.7 | 62.7 | 1402 | 61.1 |

Table 18 Awareness of possible threats (QIV2)

| **Have heard and understood these threats** | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | *N* | *%* |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *%* | *%* | | |
| a. Exposure to undesirable materials (porno., gambling, drugs, violence, etc.) | 175 | 48.6 | 394 | 62.2 | 296 | 47.7 | 446 | 65.5 | 56.7 | 57.6 | 1311 | 57.1 |
| b. Cyber-bullying | 122 | 33.9 | 305 | 48.2 | 195 | 31.4 | 326 | 47.9 | 39.9 | 42.9 | 948 | 41.3 |
| c. Identity theft | 142 | 39.4 | 369 | 58.3 | 255 | 41.1 | 413 | 60.6 | 50.2 | 52.6 | 1179 | 51.4 |
| d. Infection by computer viruses and other malicious software | 192 | 53.3 | 482 | 76.1 | 383 | 61.7 | 531 | 78.0 | 68.9 | 69.5 | 1588 | 69.2 |
| e. Internet addiction, | 147 | 40.8 | 399 | 63.0 | 284 | 45.7 | 438 | 64.3 | 56.2 | 54.2 | 1268 | 55.3 |
| f. Solicitation for sexual and other harmful activities | 140 | 38.9 | 369 | 58.3 | 244 | 39.3 | 401 | 58.9 | 48.2 | 52.6 | 1154 | 50.3 |
| g. Illegal downloading copyrighted materials | 179 | 49.7 | 439 | 69.4 | 330 | 53.1 | 493 | 72.4 | 62.2 | 63.4 | 1441 | 62.8 |

Table 19 Internet addiction (QIV3)

| Frequently/ very frequently/ all the time | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| 1. Do you find that the duration of your Internet usage has exceeded the designated limit? | 114 | 31.7 | 303 | 47.9 | 181 | 29.1 | 318 | 46.7 | 42.9 | 36.6 | 916 | 39.9 |
| 2. Do you put aside what you are supposed to do and spend the time on Internet? | 68 | 18.9 | 173 | 27.3 | 98 | 15.8 | 191 | 28.0 | 25.5 | 20.4 | 530 | 23.1 |
| 3. Do you have more enthusiasm or anticipation on Internet than interacting or gathering with other people? | 41 | 11.4 | 86 | 13.6 | 49 | 7.9 | 88 | 12.9 | 13.9 | 8.9 | 264 | 11.5 |
| 4. Do you make friends on Internet? | 23 | 6.4 | 78 | 12.3 | 32 | 5.2 | 73 | 10.7 | 10.8 | 7.0 | 206 | 9.0 |
| 5. Do you get blamed or criticized for using Internet? | 47 | 13.1 | 133 | 21.0 | 80 | 12.9 | 122 | 17.9 | 20.5 | 12.4 | 382 | 16.6 |
| 6. Do you get late to school or leave early because of using Internet? | 5 | 1.4 | 16 | 2.5 | 11 | 1.8 | 9 | 1.3 | 2.4 | 1.1 | 41 | 1.8 |
| 7. Do you lose control in checking emails? | 32 | 8.9 | 155 | 24.5 | 53 | 8.5 | 169 | 24.8 | 17.1 | 18.7 | 409 | 17.8 |
| 8. Does your academic performance relapse because of using Internet? | 54 | 15.0 | 122 | 19.3 | 85 | 13.7 | 114 | 16.7 | 20.8 | 11.4 | 375 | 16.3 |
| 9. When someone asks you about what you would do on Internet, do you have some reservations in disclosing or conceal the real fact? | 61 | 16.9 | 127 | 20.1 | 73 | 11.8 | 135 | 19.8 | 19.5 | 14.8 | 396 | 17.3 |
| 10. Do you seek emotional and social supports from Internet? | 18 | 5.0 | 74 | 11.7 | 30 | 4.8 | 82 | 12.0 | 9.7 | 8.0 | 204 | 8.9 |
| 11. Do you act ahead of time to go online or take every chance to use Internet whenever you have access to it? | 82 | 22.8 | 192 | 30.3 | 121 | 19.5 | 203 | 29.8 | 28.3 | 23.6 | 598 | 26.1 |
| 12. Do you think if there is no Internet, life would become dull? | 39 | 10.8 | 118 | 18.6 | 44 | 7.1 | 100 | 14.7 | 13.1 | 13.1 | 301 | 13.1 |
| 13. When someone disturbs you when you are using Internet, do you get angry? | 62 | 17.2 | 130 | 20.5 | 79 | 12.7 | 121 | 17.8 | 19.9 | 14.0 | 392 | 17.1 |
| 14. Do you spend the sleeping hours in using Internet? | 57 | 15.8 | 152 | 24.0 | 94 | 15.1 | 151 | 22.2 | 23.0 | 16.3 | 454 | 19.8 |
| 15. While you go off-line, do you still think about the on-line activities? | 41 | 11.4 | 76 | 12.0 | 44 | 7.1 | 64 | 9.4 | 10.9 | 8.6 | 225 | 9.8 |
| 16. Do you extend the duration while you are using Internet? | 91 | 25.3 | 206 | 32.5 | 138 | 22.2 | 218 | 32.0 | 31.4 | 25.2 | 653 | 28.5 |
| 17. Have you ever tried to reduce the time in using Internet but failed? | 48 | 13.3 | 103 | 16.3 | 60 | 9.7 | 94 | 13.8 | 16.5 | 9.8 | 305 | 13.3 |
| 18. Do you cover up the hours you have spent on using Internet? | 34 | 9.4 | 82 | 13.0 | 50 | 8.1 | 88 | 12.9 | 13.5 | 8.4 | 254 | 11.1 |
| 19. Do you spend the time on Internet rather than going out? | 56 | 15.6 | 119 | 18.8 | 62 | 10.0 | 81 | 11.9 | 16.6 | 10.9 | 318 | 13.9 |
| 20. Would you feel depressed, splenetic or discomforted if you do not have Internet access? | 26 | 7.2 | 59 | 9.3 | 34 | 5.5 | 48 | 7.0 | 7.7 | 6.9 | 167 | 7.3 |

Of the 20 items of Internet addiction, Principal Component Analysis (PCA) extraction produced three components. One of them had an Eigenvalue of 8.816 (the primary component) (Table 20). The loadings of the 20 items on the primary component ranged from .314 to .805, and the reliability of the items were .931 (Table 21). The loadings of a few items were not very high. However, given that the overall reliability was very good, we decided to retain the whole scale for further analyses.

The 20 items were then added together to compute the Internet addiction scores with a range between 20 and 100. Furthermore, if a person has frequent experience in at least 1/4 of all the 20 items (i.e. at least 5 items) the person is considered to be facing a mild level of risks in Internet addiction. For those having such experience in at least 1/2 of all the items (i.e. at least 10), the person is considered to facing a medium level of risk in Internet addiction. For those having more than 3/4 of all items (or 15), the person is considered to be facing a high level of risk in Internet addiction. It was further found that more boys were facing higher level of risks in Internet addiction than girls, and so did older children than younger ones (Table 22, Table 23).

Table 20 Information of components extracted via Principal Component Analysis

| Component | Initial Eigenvalues | | Extraction Sums of Squared Loadings | |
|---|---|---|---|---|
| | Total | % of Variance | Total | % of Variance |
| 1 | 8.816 | 44.080 | 8.816 | 44.080 |
| 2 | 1.247 | 6.236 | 1.247 | 6.236 |
| 3 | 1.131 | 5.654 | 1.131 | 5.654 |
| 4 | .971 | 4.854 | | |
| 5 | .826 | 4.129 | | |
| 6 | .702 | 3.510 | | |
| 7 | .671 | 3.353 | | |
| 8 | .603 | 3.015 | | |
| 9 | .568 | 2.838 | | |
| 10 | .533 | 2.663 | | |
| 11 | .494 | 2.468 | | |
| 12 | .465 | 2.325 | | |
| 13 | .446 | 2.232 | | |
| 14 | .444 | 2.222 | | |
| 15 | .405 | 2.024 | | |
| 16 | .385 | 1.923 | | |
| 17 | .364 | 1.819 | | |
| 18 | .340 | 1.702 | | |
| 19 | .311 | 1.555 | | |
| 20 | .280 | 1.398 | | |

Table 21 Item loadings and reliability score of the primary component

| | Item loadings for the primary component |
|---|---|
| 1. Do you find that the duration of your Internet usage has exceeded the designated limit? | .693 |
| 2. Do you put aside what you are supposed to do and spend the time on Internet? | .677 |
| 3. Do you have more enthusiasm or anticipation on Internet than interacting or gathering with other people? | .658 |
| 4. Do you make friends on Internet? | .489 |
| 5. Do you get blamed or criticized for using Internet? | .706 |
| 6. Do you get late to school or leave early because of using Internet? | .314 |
| 7. Do you lose control in checking emails? | .452 |
| 8. Does your academic performance relapse because of using Internet? | .735 |
| 9. When someone asks you about what you would do on Internet, do you have some reservations in disclosing or conceal the real fact? | .654 |
| 10. Do you seek emotional and social supports from Internet? | .623 |
| 11. Do you act ahead of time to go online or take every chance to use Internet whenever you have access to it? | .741 |
| 12. Do you think if there is no Internet, life would become dull? | .627 |
| 13. When someone disturbs you when you are using Internet, do you get angry? | .734 |
| 14. Do you spend the sleeping hours in using Internet? | .724 |
| 15. While you go off-line, do you still think about the on-line activities? | .671 |
| 16. Do you extend the duration while you are using Internet? | .805 |
| 17. Have you ever tried to reduce the time in using Internet but failed? | .755 |
| 18. Do you cover up the hours you have spent on using Internet? | .730 |
| 19. Do you spend the time on Internet rather than going out? | .685 |
| 20. Would you feel depressed, splenetic or discomforted if you do not have Internet access? | .609 |

Reliability (Cronbach's α = .931)

Table 22 Risks of Internet addiction

| Internet Addiction | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | *N* | *%* |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *%* | *%* | | |
| None | 284 | 78.9 | 417 | 65.9 | 508 | 81.8 | 468 | 68.7 | 69.6 | 76.9 | 1677 | 73.1 |
| Mild | 43 | 11.9 | 123 | 19.4 | 66 | 10.6 | 127 | 18.6 | 16.8 | 14.4 | 359 | 15.6 |
| Medium | 22 | 6.1 | 65 | 10.3 | 41 | 6.6 | 68 | 10.0 | 10.5 | 6.4 | 196 | 8.5 |
| High | 11 | 3.1 | 28 | 4.4 | 6 | 1.0 | 18 | 2.6 | 3.2 | 2.3 | 63 | 2.7 |
| **Total** | 360 | 100 | 633 | 100 | 621 | 100 | 681 | 100 | 100 | 100 | 2295 | 100 |

Table 23 Internet addiction – A comparison

| | Internet addiction (Mild level or above) | Difference | *t* |
|---|---|---|---|
| Boy | 30.5% | Boy > Girl | 4.01 (2293)*** |
| Girl | 23.1% | | |
| 10-13 | 19.2% | Old > Young | 7.41 (2260)*** |
| 14-17 | 32.7% | | |

***$p < .001$

***Parents' methods of guidance and supervision***

Tables 24 and 25 show children's views on the methods used by parents to supervise and guide children in using the Internet and the effectiveness of these methods. For most of the less restrictive Internet parenting methods like maintaining interactions between parents and children about using the Internet, sharing computer knowledge, becoming Facebook friend, and setting rules, etc., relatively less children had such experiences (around 30%), and few of them considered these parenting methods as effective. Rather, the more restrictive methods were more common among these children and they considered them as effective.

For example, around 40 to 50% of them considered parents reminded them when they had used the Internet for too long or too late, restricted their use if school performance got worse, and restricted the amount of time they used the Internet as effective to them. They admitted that the more liberal and less restrictive parenting methods were less effective in guiding them to use the Internet in proper timings. Parenting methods involving actual actions taken by parents, according to many of the children, were more effective.

Table 24 Methods use by parents to supervise and guide you using the Internet and their effectiveness (QV2a to QV2i)

| Methods (sometimes/ frequently/ almost always) used by parents and their effectiveness | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Parents (N=2205) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | Father | Mom | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| a. Regularly discuss your online experience with you | 94 | 26.1 | 139 | 22.0 | 244 | 39.3 | 239 | 35.1 | 29.9 | 31.5 | 716 | 31.2 |
| Effectiveness (effective/ very effective) | 70 | 19.4 | 110 | 17.4 | 172 | 27.7 | 142 | 20.9 | 19.2 | 21.7 | 494 | 21.5 |
| b. Discuss about the threats of Internet usage with you | 122 | 33.9 | 179 | 28.3 | 282 | 45.4 | 264 | 38.8 | 36.1 | 37.1 | 847 | 36.9 |
| Effectiveness (effective/ very effective) | 88 | 24.4 | 135 | 21.3 | 199 | 32.0 | 182 | 26.7 | 26.1 | 26.0 | 604 | 26.3 |
| c. Encourage you to find good uses of the computer and Internet | 171 | 47.5 | 261 | 41.2 | 385 | 62.0 | 351 | 51.5 | 50.4 | 51.0 | 1168 | 50.9 |
| Effectiveness (effective/ very effective) | 109 | 30.3 | 163 | 25.8 | 250 | 40.3 | 217 | 31.9 | 30.1 | 32.3 | 739 | 32.2 |
| d. Join you in your online activities (e.g. Watch movie, play games, explore common interests, MSN, etc.) | 112 | 31.1 | 177 | 28.0 | 263 | 42.4 | 261 | 38.3 | 30.8 | 36.6 | 813 | 35.4 |
| Effectiveness (effective/ very effective) | 86 | 23.9 | 155 | 24.5 | 240 | 38.6 | 177 | 26.0 | 24.8 | 30.2 | 658 | 28.7 |
| e. Share computer knowledge/ skills together | 101 | 28.1 | 159 | 25.1 | 270 | 43.5 | 260 | 38.2 | 35.5 | 33.9 | 790 | 34.4 |
| Effectiveness (effective/ very effective) | 89 | 24.7 | 138 | 21.8 | 257 | 41.4 | 198 | 29.1 | 29.3 | 29.7 | 682 | 29.7 |
| f. Become your Facebook friend | 49 | 13.6 | 63 | 10.0 | 111 | 17.9 | 129 | 18.9 | 13.6 | 15.2 | 352 | 15.3 |
| Effectiveness (effective/ very effective) | 33 | 9.2 | 54 | 8.5 | 94 | 15.1 | 82 | 12.0 | 10.1 | 11.7 | 263 | 11.5 |
| g. Remind you when they have used it for too long or too late | 244 | 67.8 | 445 | 70.3 | 461 | 74.2 | 512 | 75.2 | 72.1 | 73.3 | 1662 | 72.4 |
| Effectiveness (effective/ very effective) | 182 | 50.6 | 325 | 51.3 | 388 | 62.5 | 418 | 61.4 | 55.6 | 58.3 | 1313 | 57.2 |
| h. Restrict your use if the school performance get worse | 183 | 50.8 | 256 | 40.4 | 326 | 52.5 | 292 | 42.9 | 45.1 | 46.5 | 1057 | 46.1 |
| Effectiveness (effective/ very effective) | 145 | 40.3 | 229 | 36.2 | 287 | 46.2 | 271 | 39.8 | 38.4 | 41.6 | 932 | 40.6 |
| i. Restrict the amount of time you use the Internet | 203 | 56.4 | 283 | 44.7 | 392 | 63.1 | 310 | 45.5 | 48.9 | 52.8 | 1188 | 51.8 |
| Effectiveness (effective/ very effective) | 156 | 43.3 | 223 | 35.2 | 335 | 53.9 | 280 | 41.1 | 41.3 | 44.5 | 994 | 43.3 |

Table 25 Methods use by parents to supervise and guide you using the Internet and their effectiveness (QV2j to QV2q)  Father/ mother refer to QV1

| Methods (sometimes/ frequently/ almost always) used by parents to supervise and guide you in using the Internet and their effectiveness | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Parents (N=2205) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | **Father** | **Mom** | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| j. Set rules about interacting with stranger | 102 | 28.3 | 127 | 20.1 | 194 | 31.2 | 164 | 24.1 | 24.1 | 25.9 | 587 | 25.6 |
| Effectiveness (effective/ very effective) | 64 | 17.8 | 88 | 13.9 | 156 | 25.1 | 123 | 18.1 | 17.6 | 19.1 | 431 | 18.8 |
| k. Install software to filter access to undesirable websites or to monitor your online activity | 94 | 26.1 | 112 | 17.7 | 202 | 32.5 | 146 | 21.4 | 21.0 | 25.2 | 554 | 24.1 |
| Effectiveness (effective/ very effective) | 109 | 30.3 | 143 | 22.6 | 218 | 35.1 | 202 | 29.7 | 30.6 | 28.5 | 672 | 29.3 |
| l. Set rules about which websites can be visited | 90 | 25.0 | 111 | 17.5 | 226 | 36.4 | 167 | 24.5 | 25.9 | 25.9 | 594 | 25.9 |
| Effectiveness (effective/ very effective) | 57 | 15.8 | 73 | 11.5 | 134 | 21.6 | 94 | 13.8 | 15.6 | 15.4 | 358 | 15.6 |
| m. Set rules about downloading and uploading material | 86 | 23.9 | 110 | 17.4 | 184 | 29.6 | 143 | 21.0 | 21.6 | 23.0 | 523 | 22.8 |
| Effectiveness (effective/ very effective) | 56 | 15.6 | 75 | 11.8 | 128 | 20.6 | 84 | 12.3 | 15.4 | 14.7 | 343 | 14.9 |
| n. Set rules about disclosure of personal information | 97 | 26.9 | 133 | 21.0 | 200 | 32.2 | 178 | 26.1 | 25.7 | 26.4 | 608 | 26.5 |
| Effectiveness (effective/ very effective) | 62 | 17.2 | 92 | 14.5 | 145 | 23.3 | 109 | 16.0 | 17.8 | 17.5 | 408 | 17.8 |
| o. Monitoring your web activities and online communication (e.g. check browsing history, MSN friends, Facebook) | 61 | 16.9 | 89 | 14.1 | 135 | 21.7 | 119 | 17.5 | 17.4 | 17.2 | 404 | 17.6 |
| Effectiveness (effective/ very effective) | 63 | 17.5 | 111 | 17.5 | 146 | 23.5 | 148 | 21.7 | 19.9 | 20.3 | 468 | 20.4 |
| p. Unplug the power supply/ Lan connection when necessary | 48 | 13.3 | 74 | 11.7 | 41 | 6.6 | 66 | 9.7 | 9.1 | 9.6 | 229 | 10.0 |
| Effectiveness (effective/ very effective) | 78 | 21.7 | 132 | 20.9 | 127 | 20.5 | 139 | 20.4 | 22.5 | 20.1 | 476 | 20.7 |
| q. Sent you to lessons organised by a youth group or similar organisation about how to use the Internet sensibly | 52 | 14.4 | 40 | 6.3 | 97 | 15.6 | 39 | 5.7 | 5.8 | 10.9 | 228 | 9.9 |
| Effectiveness (effective/ very effective) | 56 | 15.6 | 48 | 7.6 | 82 | 13.2 | 62 | 9.1 | 7.6 | 11.6 | 248 | 10.8 |

Table 26 shows the factor analysis results of the methods used to guide and supervise children in using the Internet. Out of the 17 items, PCA Extraction yielded 4 components with Eigenvalues equaled to 6.76, 1.513, 1.388, and 1.145 respectively. By checking the factor loading after varimax rotation, items with high loading and consistent meaning in each factor were put together to examine their reliability. Table 26 presents the four factors, their pertinent items and reliability test results – namely set rules, involvement, restriction, and monitoring.

Table 26 Factor analysis of the methods used to guide and supervise children in using the Internet

| Set Rules (4 items, Cronbach's α = .912) | Loadings of items after rotation |
|---|---|
| Set rules about which websites can be visited | .864 |
| Set rules about downloading and uploading material | .851 |
| Set rules about disclosure of personal information | .835 |
| Set rules about interacting with stranger | .702 |
| **Involvement (4 items, Cronbach's α = .816)** | |
| Discuss about the threats of Internet usage with you | .791 |
| Regularly discuss your online experience with you | .761 |
| Encourage you to find good uses of the computer and Internet | .724 |
| Share computer knowledge/ skills together | .583 |
| **Restriction (3 items, Cronbach's α = .766)** | |
| Restrict your use if the school performance get worse | .852 |
| Restrict the amount of time you use the Internet | .773 |
| Remind you when they have used it for too long or too late | .662 |
| **Monitoring (3 items, Cronbach's α = .674)** | |
| Become your Facebook friend | .729 |
| Join you in your online activities | .580 |
| Monitoring your web activities and online communication | .460 |

Table 27 Parents' methods to supervise and guide children (Setting rules)

| Setting Rules | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2270) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| 1 | 177 | 49.7 | 375 | 60.0 | 263 | 42.7 | 353 | 52.5 | 49.9 | 53.1 | 1168 | 51.5 |
| 2 | 87 | 24.4 | 126 | 20.2 | 159 | 25.8 | 163 | 24.2 | 24.1 | 23.0 | 535 | 23.6 |
| 3 | 74 | 20.8 | 109 | 17.4 | 148 | 24.0 | 133 | 19.8 | 22.4 | 18.3 | 464 | 20.4 |
| 4 | 14 | 3.9 | 11 | 1.8 | 25 | 4.1 | 20 | 3.0 | 2.5 | 3.7 | 70 | 3.1 |
| 5 | 4 | 1.1 | 4 | .6 | 21 | 3.4 | 4 | .6 | 1.1 | 1.9 | 33 | 1.5 |
| **Total** | 356 | 100 | 625 | 100 | 616 | 100 | 673 | 100 | 100 | 100 | 2270 | 100 |

Table 28 Parents' methods to supervise and guide children (Involvement)

| Involve-ment | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (*N=2271*) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | *N* | *%* |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *%* | *%* | | |
| 1 | 113 | 31.9 | 252 | 40.1 | 112 | 18.2 | 174 | 25.9 | 29.4 | 27.8 | 651 | 28.7 |
| 2 | 125 | 35.3 | 201 | 32.0 | 205 | 33.3 | 228 | 33.9 | 34.5 | 32.3 | 759 | 33.4 |
| 3 | 101 | 28.5 | 155 | 24.6 | 255 | 41.4 | 238 | 35.4 | 32.0 | 34.0 | 749 | 33.0 |
| 4 | 13 | 3.7 | 19 | 3.0 | 37 | 6.0 | 30 | 4.5 | 3.5 | 5.3 | 99 | 4.4 |
| 5 | 2 | .6 | 2 | .3 | 7 | 1.1 | 2 | .3 | .5 | .6 | 13 | .6 |
| **Total** | 354 | 100 | 629 | 100 | 616 | 100 | 672 | 100 | 100 | 100 | 2271 | 100 |

Table 29 Parents' methods to supervise and guide children (Restriction)

| Restriction | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (*N=2259*) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | *N* | *%* |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *%* | *%* | | |
| 1 | 58 | 16.5 | 104 | 16.5 | 76 | 12.4 | 85 | 12.7 | 14.2 | 14.4 | 323 | 14.3 |
| 2 | 94 | 26.7 | 228 | 36.2 | 154 | 25.2 | 240 | 36.0 | 27.3 | 36.5 | 716 | 31.7 |
| 3 | 129 | 36.6 | 194 | 30.8 | 258 | 42.2 | 236 | 35.4 | 37.5 | 34.7 | 817 | 36.2 |
| 4 | 59 | 16.8 | 87 | 13.8 | 100 | 16.4 | 96 | 14.4 | 18.0 | 11.9 | 342 | 15.1 |
| 5 | 12 | 3.4 | 16 | 2.5 | 23 | 3.8 | 10 | 1.5 | 2.9 | 2.5 | 61 | 2.7 |
| **Total** | 352 | 100 | 629 | 100 | 611 | 100 | 667 | 100 | 100 | 100 | 2259 | 100 |

Table 30 Parents' methods to supervise and guide children (Monitoring)

| Monitor | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (*N=2275*) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | *N* | *%* |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *%* | *%* | | |
| 1 | 185 | 52.1 | 363 | 57.7 | 257 | 41.7 | 312 | 46.3 | 49.7 | 48.4 | 1117 | 49.1 |
| 2 | 123 | 34.6 | 212 | 33.7 | 243 | 39.4 | 245 | 36.4 | 36.6 | 35.8 | 823 | 36.2 |
| 3 | 37 | 10.4 | 44 | 7.0 | 94 | 15.2 | 98 | 14.5 | 11.8 | 12.2 | 273 | 12.0 |
| 4 | 10 | 2.8 | 7 | 1.1 | 18 | 2.9 | 18 | 2.7 | 1.7 | 3.0 | 53 | 2.3 |
| 5 | 0 | .0 | 3 | .5 | 5 | .8 | 1 | .1 | .2 | .6 | 9 | .4 |
| **Total** | 355 | 100 | 629 | 100 | 617 | 100 | 674 | 100 | 100 | 100 | 2275 | 100 |

Table 31 Comparisons of the methods of supervision

| | Setting rule | | Involvement | | Restriction | | Close monitoring | |
|---|---|---|---|---|---|---|---|---|
| | *Mean* | *SD* | *Mean* | *SD* | *Mean* | *SD* | *Mean* | *SD* |
| **Parent's internet knowledge** | | | | | | | | |
| No | 6.82 | 3.39 | 7.88 | 3.13 | 7.64 | 2.96 | 4.73 | 2.15 |
| Yes | 7.48 | 3.73 | 9.05 | 3.07 | 7.96 | 2.84 | 5.33 | 2.35 |
| *(t,df)* | (4.368, 2268)*** | | (8.927, 2269)*** | | (2.622, 2257)*** | | (6.355, 2198)*** | |
| **Gender** | | | | | | | | |
| Boy | 7.24 | 3.52 | 8.42 | 3.09 | 8.02 | 2.97 | 5.00 | 2.18 |
| Girl | 7.15 | 3.69 | 8.68 | 3.21 | 7.59 | 2.81 | 5.14 | 2.39 |
| *(t,df)* | (.609 , 2268) | | (-1.969, 2269)* | | (3.530, 2257)*** | | (-1.455, 2273) | |
| **Age** | | | | | | | | |
| 10-13 | 7.73 | 3.89 | 8.97 | 3.15 | 8.14 | 2.94 | 5.27 | 2.34 |
| 14-17 | 6.80 | 3.31 | 8.23 | 3.11 | 7.58 | 2.84 | 4.92 | 2.22 |
| *(t,df)* | (6.000, 1893)*** | | (5.521, 2269)*** | | (4.569, 2257)*** | | (3.723, 2273)*** | |

*p < .05. **p < .01. ***p < .001.


### *Parenting styles*

Out of the 30 items of the parenting styles questionnaires, PCA extraction yielded 5 components with Eigenvalues larger than 1 (6.305, 3.192, 2.641, 1.153 and 1.002 respectively). By checking the factor loading after varimax rotation, items with high loading and consistent meaning in each factor were put together to examine their reliability.

Table 32 presents the four factors, their pertinent items and reliability test results.

Table 32 Factor analysis of the parenting styles

| **Authoritative (13 items, Cronbach's α = .853 )** | Loadings of items after rotation |
|---|---|
| Most of the time as I was growing up my mother did what the children in the family wanted when making family decisions. | .649 |
| As the children in my family were growing up, my mother consistently gave us direction and guidance in rational and objective ways. | .646 |
| My mother gave me direction for my behavior and activities as I was growing up and she expected me to follow her direction, but she was always willing to listen to my concerns and to discuss that direction wi | .644 |
| As I was growing up my mother gave me clear direction for my behaviors and activities, but she was also understanding when I disagreed with her. | .644 |
| As I was growing up my mother allowed me to form my own point of view on family matters and she generally allowed me to decide for myself what I was going to do. | .635 |
| My mother had clear standards of behavior for the children in our home as I was growing up, but she was willing to adjust those standards to the needs of each of the individual children in the family. | .626 |
| As I was growing up I knew what my mother expected of me in my family, but I also felt free to discuss those expectations with my mother when I felt that they were unreasonable. | .625 |
| As I was growing up my mother directed the activities and decisions of the children in the family through reasoning and discipline. | .564 |

| As I was growing up my mother often told me exactly what she wanted me to do and how she expected me to do it. | .537 |
|---|---|
| My mother has always encouraged verbal give-and-take whenever I have felt that family rules and restrictions were unreasonable. | .516 |
| As I was growing up, if my mother made a decision in the family that hurt me, she was willing to discuss that decision with me and to admit it if she had made a mistake. | .501 |
| As I was growing up my mother allowed me to decide most things for myself without a lot of direction from her. | .48 |
| As I was growing up, once family policy had been established, my mother discussed the reasoning behind the policy with the children in the family. | .448 |

**Authoritarian   (9 items, Cronbach's α = .825)**

| As I was growing up I knew what my mother expected of me in the family and she insisted that I conform to those expectations simply out of respect for her authority. | .680 |
|---|---|
| My mother has always felt that most problems in society would be solved if we could get parents to strictly and forcibly deal with their children when they don't do what they are supposed to as they are growing | .661 |
| Even if her children didn't agree with her, my mother felt that it was for our own good if we were forced to conform to what she thought was right. | .661 |
| As I was growing up my mother let me know what behavior she expected of me, and if I didn't meet those expectations, she punished me. | .661 |
| As I was growing up my mother did not allow me to question any decision she had made. | .66 |
| Whenever my mother told me to do something as I was growing up, she expected me to do it immediately without asking any questions. | .618 |
| My mother has always felt that more force should be used by parents in order to get their children to behave the way they are supposed to. | .603 |
| As I was growing up my mother would get very upset if I tried to disagree with her. | .572 |
| My mother felt that wise parents should teach their children early just who is boss in the family. | .529 |

**Permissive (4 items, Cronbach's α = .706)**

| As I was growing up, my mother seldom gave me expectations and guidelines for my behavior. | .716 |
|---|---|
| My mother did not view herself as responsible for directing and guiding my behavior as I was growing up. | .711 |
| My mother feels that most problems in society would be solved if parents would not restrict their children's activities, decisions, and desires as they are growing up. | .689 |
| As I was growing up my mother did not direct the behaviors, activities, and desires of the children in the family. | .681 |

Tables 33 to 36 show the extent that parents were authoritative, authoritarian or permissive in guiding and supervising the usage of Internet from the perspectives of their children. The figures tell us that the majority of the parents (71.7%) in this study adopted an authoritative parenting style (being clear in their expectations and warm to their children). Thirty-five percent of them adopted an authoritarian parenting style, which give emphasis to the authority and power of parents, while a small percentage of parents (11.4%) adopted a permissive parenting style. Table 36 shows that parent with Internet knowledge were more likely to adopt the authoritative parenting style, and parents of younger children were more likely to adopt an authoritarian parenting style to their children.

Table 33 Parenting styles (Authoritative)

| Authori-tative | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2256) | | Total | |
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | N | % | n | % | n | % | % | % | | |
| 1 | 3 | 0.8 | 4 | 0.6 | 1 | 0.2 | 2 | 0.3 | 0.4 | 0.5 | 10 | 0.4 |
| 2 | 12 | 3.4 | 31 | 5.0 | 16 | 2.6 | 19 | 2.8 | 4.0 | 2.9 | 78 | 3.5 |
| 3 | 112 | 31.7 | 175 | 28.2 | 130 | 21.2 | 133 | 19.9 | 25.0 | 23.7 | 550 | 24.4 |
| 4 | 215 | 60.9 | 403 | 64.9 | 445 | 72.6 | 487 | 72.8 | 67.5 | 70.0 | 1550 | **68.7** |
| 5 | 11 | 3.1 | 8 | 1.3 | 21 | 3.4 | 28 | 4.2 | 3.1 | 3.0 | 68 | **3.0** |
| **Total** | 353 | 100 | 621 | 100 | 613 | 100 | 669 | 100 | 100 | 100 | 2256 | 100 |

Table 34 Parenting styles (Authoritarian)

| Authori-tarian | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2269) | | Total | |
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | N | % | N | % | n | % | % | % | | |
| 1 | 4 | 1.1 | 3 | 0.5 | 5 | 0.8 | 6 | 0.9 | 0.8 | 0.8 | 18 | 0.8 |
| 2 | 24 | 6.7 | 66 | 10.5 | 52 | 8.5 | 70 | 10.5 | 9.4 | 9.3 | 212 | 9.3 |
| 3 | 195 | 54.6 | 355 | 56.4 | 332 | 54.0 | 362 | 54.2 | 54.7 | 54.9 | 1244 | 54.8 |
| 4 | 110 | 30.8 | 183 | 29.1 | 186 | 30.2 | 204 | 30.5 | 28.3 | 32.1 | 683 | 30.1 |
| 5 | 24 | 6.7 | 22 | 3.5 | 40 | 6.5 | 26 | 3.9 | 6.8 | 2.9 | 112 | 4.9 |
| **Total** | 357 | 100 | 629 | 100 | 615 | 100 | 668 | 100 | 100 | 100 | 2269 | 100 |

Table 35 Parenting styles (Permissive)

| Permi-ssive | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2275) | | Total | |
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | N | % | n | % | n | % | % | % | | |
| 1 | 10.1 | 40 | 6.4 | 76 | 84 | 13.6 | 44 | 6.5 | 8.2 | 9.8 | 204 | 9.0 |
| 2 | 28.2 | 231 | 36.8 | 331 | 192 | 31.1 | 251 | 37.1 | 35.4 | 32.5 | 774 | 34.0 |
| 3 | 47.3 | 292 | 46.6 | 460 | 268 | 43.4 | 311 | 46.0 | 43.8 | 47.7 | 1039 | 45.7 |
| 4 | 13.0 | 63 | 10.0 | 109 | 73 | 11.8 | 70 | 10.4 | 12.1 | 10.0 | 252 | **11.1** |
| 5 | 1.4 | 1 | 0.2 | 6 | 0 | 0.0 | 0 | 0.0 | 0.4 | 0.1 | 6 | **0.30** |
| **Total** | 100 | 627 | 100 | 982 | 617 | 100 | 676 | 100 | 100 | 100 | 2275 | 100 |

Table 36 Comparisons of parenting styles

| | Authoritative | | Authoritarian | | Permissive | |
|---|---|---|---|---|---|---|
| | *Mean* | *SD* | *Mean* | *SD* | *Mean* | *SD* |
| **Parent's internet knowledge** | | | | | | |
| No | 45.16 | 6.53 | 28.84 | 5.42 | 10.22 | 2.73 |
| Yes | 46.57 | 5.73 | 28.95 | 5.47 | 10.03 | 2.73 |
| *(t,df)* | (-5.356, 1938)*** | | (-.445, 2267) | | (1.595, 2273) | |
| **Gender** | | | | | | |
| Boy | 45.88 | 6.27 | 29.12 | 5.70 | 10.17 | 2.75 |
| Girl | 46.04 | 5.97 | 28.65 | 5.14 | 10.05 | 2.71 |
| *(t,df)* | (-.630, 2250) | | (2.063, 2266)* | | (1.083, 2273) | |
| **Age** | | | | | | |
| 10-13 | 46.11 | 6.12 | 29.41 | 5.63 | 10.06 | 2.96 |
| 14-17 | 45.85 | 6.13 | 28.52 | 5.27 | 10.15 | 2.55 |
| *(t,df)* | (1.006, 2254) | | (3.854, 2267)*** | | (-.713, 2273) | |

*$p < .05$. **$p < .01$. ***$p < .001$.

## *Family relationship*

Generally speaking, most of the children interviewed in this study were satisfied with family life, especially their views about family atmosphere and parent-child relationship (Table 37). But for "communication with family members", the rate was comparatively lower (73.8%). If we go back to look at the figures about whether parents knew their online friends and whether parents and children ever talked about online activities, those figures were very low as well.

Table 37 Satisfaction with family life (QVI2)

| **Satisfaction (Satisfied and very satisfied)** | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *%* | *%* | *N* | *%* |
| a. Time being together with my parent | 291 | 80.8 | 472 | 74.6 | 533 | 85.8 | 538 | 79.0 | 79.5 | 80.3 | 1834 | 79.9 |
| b. Family atmosphere | 308 | 85.6 | 508 | 80.3 | 555 | 89.4 | 575 | 84.4 | 83.9 | 85.7 | 1946 | 84.8 |
| c. Parent-child relationship | 313 | 86.9 | 504 | 79.6 | 567 | 91.3 | 578 | 84.9 | 83.9 | 87.2 | 1962 | 85.5 |
| d. Communication with family members | 276 | 76.7 | 430 | 67.9 | 513 | 82.6 | 475 | 69.8 | 70.1 | 77.9 | 1694 | 73.8 |
| e. Family cohesion | 301 | 83.6 | 480 | 75.8 | 534 | 86.0 | 545 | 80.0 | 80.1 | 82.1 | 1860 | 81.0 |

### Peer relationships and civic/social participation

Table 38 Peer relationship (QVII1)

| Frequently/ almost always | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *%* | *%* | *N* | *%* |
| a. I get on well with my friends | 293 | 81.4 | 543 | 85.8 | 535 | 86.2 | 610 | 89.6 | 85.3 | 87.5 | 1981 | 86.3 |
| b. My friends don't seem to care about me | 19 | 5.3 | 20 | 3.2 | 14 | 2.3 | 19 | 2.8 | 3.6 | 2.7 | 72 | 3.1 |
| c. My friends treat me badly | 16 | 4.4 | 19 | 3.0 | 12 | 1.9 | 16 | 2.3 | 3.0 | 2.5 | 63 | 2.7 |
| d. My friends really respect me | 201 | 55.8 | 385 | 60.8 | 366 | 58.9 | 462 | 67.8 | 57.5 | 66.1 | 1414 | 61.6 |
| e. I have a feeling of being abandoned by my friends | 19 | 5.3 | 19 | 3.0 | 15 | 2.4 | 16 | 2.3 | 2.7 | 3.3 | 69 | 3.0 |
| f. I wish I could have another group of friends | 69 | 19.2 | 99 | 15.6 | 100 | 16.1 | 108 | 15.9 | 17.2 | 15.5 | 376 | 16.4 |
| g. My friends are my sources of joy | 241 | 66.9 | 433 | 68.4 | 430 | 69.2 | 502 | 73.7 | 68.5 | 71.6 | 1606 | 70.0 |
| h. I think I am important among my friends | 177 | 49.2 | 341 | 53.9 | 337 | 54.3 | 408 | 59.9 | 52.6 | 57.7 | 1263 | 55.0 |
| i. My friends are not interested in me | 13 | 3.6 | 17 | 2.7 | 9 | 1.4 | 9 | 1.3 | 2.7 | 1.5 | 48 | 2.1 |
| j. My friends take my thoughts and opinions seriously | 156 | 43.3 | 314 | 49.6 | 304 | 49.0 | 376 | 55.2 | 46.8 | 53.7 | 1150 | 50.1 |

Out of the 10 items of the parenting styles questionnaires, PCA extraction yielded 2 components with Eigenvalues larger than 1 (3.400 and 2.024). By checking the factor loading after varimax rotation, we found that all the positive worded items formed one factor and the negative worded items formed another factor (Table 39). We decide to recoded the scores of the negatively worded items reversely and add all the items. The reliability, measured by Cronbach's α, of all the items after reverse recoding of the negatively worded ones was .75. All the items, including the recoded ones were added together to form one peer relationship composite score ranged between 5 and 50. Table 40 shows that more than 80% of the children reported enjoying a good peer-relationship. Further comparisons showed that children whose parents had no Internet knowledge reported enjoying a lower level of peer relationship. Besides, younger children reported a better peer relationship than older children (Table 41).

Table 39 Factor analysis of peer relationship

| Peer relationship (10 items, Cronbach's α = .75 ) | Loadings of items after rotation |
|---|---|
| My friends really respect me | .649 |
| I get on well with my friends | .646 |
| I think I am important among my friends | .644 |
| My friends take my thoughts and opinions seriously | .644 |
| My friends are my sources of joy | .635 |
| My friends really respect me | .626 |
| I wish I could have another group of friends | .558 |
| I have a feeling of being abandoned by my friends | .569 |
| My friends are not interested in me | .430 |
| My friends treat me badly | .539 |
| My friends don't seem to care about me | .448 |

Table 40 Peer relationship

| Peer relations | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2268) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| 1 | 1 | .3 | 1 | .2 | 0 | .0 | 0 | .0 | .1 | .1 | 2 | .1 |
| 2 | 5 | 1.4 | 1 | .2 | 2 | .3 | 0 | .0 | .1 | .6 | 8 | .4 |
| 3 | 57 | 16.1 | 98 | 15.7 | 81 | 13.2 | 80 | 11.8 | 15.6 | 12.1 | 316 | 13.9 |
| 4 | 211 | 59.6 | 371 | 59.3 | 371 | 60.6 | 395 | 58.4 | 60.8 | 58.0 | 1348 | 59.4 |
| 5 | 80 | 22.6 | 155 | 24.8 | 158 | 25.8 | 201 | 29.7 | 23.4 | 29.2 | 594 | 26.2 |
| **Total** | 354 | 100 | 626 | 100 | 612 | 100 | 676 | 100 | 100 | 100 | 2268 | 100 |
| **$M^1$, SD** | 38.7, 5.1 | | 39.2, 4.8 | | 39.4, 4.6 | | 39.9, 4.4 | | 39.0, 4.7 | 49.8, 4.7 | 39.4. 4.7 | |

[1]Range of total score is between 5 and 50, the higher the score, the better the peer relationship.

Table 41 Peer relationship - A comparison

| | Peer relationship scores | | Difference | t (df) |
|---|---|---|---|---|
| | *Mean* | *SD* | | |
| **Parent's Internet knowledge** | | | | |
| No | 38.97 | 4.92 | Yes > No | 3.489 (2266)*** |
| Yes | 39.67 | 4.50 | | |
| **Gender** | | | | |
| Boy | 39.15 | 4.80 | No | -1.933 (2266) |
| Girl | 39.53 | 4.62 | | |
| **Age** | | | | |
| 10-13 | 39.01 | 4.71 | Young > Old | -3.868 (2266)*** |
| 14-17 | 39.77 | 4.66 | | |

***$p \leqq .001$

Table 42 shows that more children using the Internet in this study involved frequently in joined functions in school and other activities among friends. Though we are not sure whether their participation in these activities was due to using the Internet, the Internet was still crucial in affecting their civic/participation. They could remain close contact with the peers and be informed about activities happening around them through online activities. Therefore, the children Internet users would have stronger engagement in the collective activities.

Table 42 Civic/ social participation (QVII2)

| Frequently/ almost always | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| a. Participate in activities organized by community /social centres. | 20 | 5.6 | 43 | 6.8 | 51 | 8.2 | 68 | 10.0 | 6.9 | 9.1 | 182 | 7.9 |
| b. If yes, helped organize, initiate these activities | 10 | 2.8 | 29 | 4.6 | 17 | 2.7 | 40 | 5.9 | 3.5 | 4.9 | 96 | 4.2 |
| c. Joined functions organized by your school | 73 | 20.3 | 128 | 20.2 | 179 | 28.8 | 195 | 28.6 | 21.2 | 29.3 | 575 | 25.1 |
| d. If yes, helped organize, initiate them | 20 | 5.6 | 40 | 6.3 | 49 | 7.9 | 49 | 7.2 | 5.2 | 8.8 | 158 | 6.9 |
| e. Joined activities among your friends | 59 | 16.4 | 218 | 34.4 | 106 | 17.1 | 257 | 37.7 | 28.4 | 27.4 | 640 | 27.9 |
| f. If yes, helped organize, initiate them | 20 | 5.6 | 90 | 14.2 | 41 | 6.6 | 125 | 18.4 | 11.0 | 13.2 | 276 | 12.0 |

*Self-esteem*

The 10 items of Rosenberg Self-Esteem scales were added together to form a composite score ranged between 4 and 40. The reliability score (Cronbach's α) of the 10 items (after recording of negatively worded items) was 0.75. Table 43 shows that 25.4% of the children reported having a very high level of self-esteem. Only three children (0.1%) reported to have very low self-esteem. Further comparisons showed that children whose parents had no Internet knowledge reported a relatively lower level of self-esteem (Table 44).

Table 43 Self-esteem

| Self-Esteem | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (*N=2248*) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| 1 | 1 | .3 | 0 | .0 | 2 | .3 | 0 | .0 | .0 | .3 | 3 | .1 |
| 2 | 20 | 5.7 | 25 | 4.0 | 17 | 2.8 | 24 | 3.6 | 3.9 | 3.7 | 86 | 3.8 |
| 3 | 253 | 71.9 | 449 | 72.7 | 441 | 72.3 | 446 | 66.8 | 72.4 | 68.8 | 1589 | 70.7 |
| 4 | 78 | 22.2 | 144 | 23.3 | 150 | 24.6 | 198 | 29.6 | 23.7 | 27.2 | 570 | 25.4 |
| **Total** | 352 | 100 | 618 | 100 | 610 | 100 | 668 | 100 | 100 | 100 | 2248 | 100 |
| **M[1], SD** | 29.9, 3.5 | | 30.2, 3.1 | | 30.8, 3.1 | | 30.8, 3.1 | | 30.5, 3.1 | 30.5, 3.2 | 30.5, 3.2 | |

[1]Range of total score is between 4 and 40, the higher the score, the better the self-esteem.

Table 44 Self-esteem – A comparison

| | Self-esteem score | | Difference | t (df) |
|---|---|---|---|---|
| | *M* | *SD* | | |
| **Parent's Internet knowledge** | | | | |
| No | 30.09 | 3.25 | Yes > No | 5.17 (2246)*** |
| Yes | 30.79 | 3.13 | | |
| **Gender** | | | | |
| Boy | 30.45 | 3.12 | No | -.554 (2246) |
| Girl | 30.53 | 3.28 | | |
| **Age** | | | | |
| 10-13 | 30.44 | 3.28 | No | -.570 (2246) |
| 14-17 | 30.52 | 3.14 | | |

***$p < .001$

Table 45 Self-esteem (QVII3)

| Agree/ Strongly agree | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| On the whole I am satisfied with myself. | 321 | 89.2 | 563 | 88.9 | 587 | 94.5 | 628 | 92.2 | 91.1 | 91.9 | 2099 | 91.5 |
| At times I think that I am no good at all. | 90 | 25.0 | 183 | 28.9 | 113 | 18.2 | 139 | 20.4 | 22.1 | 23.7 | 525 | 22.9 |
| I feel that I have a number of good qualities. | 328 | 91.1 | 588 | 92.9 | 591 | 95.2 | 647 | 95.0 | 93.4 | 94.3 | 2154 | 93.9 |
| I am able to do things as well as most other people. | 298 | 82.8 | 560 | 88.5 | 563 | 90.7 | 606 | 89.0 | 88.7 | 87.9 | 2027 | 88.3 |
| I feel I do not have much to be proud of. | 144 | 40.0 | 212 | 33.5 | 217 | 34.9 | 191 | 28.0 | 35.0 | 31.4 | 764 | 33.3 |
| I certainly feel useless at times. | 67 | 18.6 | 116 | 18.3 | 86 | 13.8 | 82 | 12.0 | 14.1 | 16.7 | 351 | 15.3 |
| I feel that I am a person of worth, at least the equal of others. | 313 | 86.9 | 582 | 91.9 | 567 | 91.3 | 633 | 93.0 | 90.6 | 92.0 | 2095 | 91.3 |
| I wish I could have more respect for myself. | 328 | 91.1 | 588 | 92.9 | 584 | 94.0 | 643 | 94.4 | 92.3 | 94.5 | 2143 | 93.4 |
| All in all, I am inclined to feel that I am a failure. | 49 | 13.6 | 73 | 11.5 | 49 | 7.9 | 54 | 7.9 | 10.1 | 9.4 | 225 | 9.8 |
| I take a positive attitude toward myself. | 330 | 91.7 | 588 | 92.9 | 600 | 96.6 | 649 | 95.3 | 94.3 | 94.5 | 2167 | 94.4 |

## Social network and support

We can also note from Table 46 that many of them had close schoolmates and friends (37.3% of them had 4 to 6 close schoolmates; 36.8% of them had one or more close friends and neighbours).

Table 46 Number of close school mates/ friends/ neighbours (QVII4 & 5)

| Number of | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| **Close school mates** | | | | | | | | | | | | |
| None | 8 | 2.2 | 20 | 3.2 | 5 | .8 | 13 | 1.9 | 2.4 | 1.6 | 46 | 2.0 |
| 1-3 | 76 | 21.1 | 112 | 17.7 | 116 | 18.7 | 109 | 16.0 | 16.1 | 20.0 | 413 | 18.0 |
| 4-6 | 119 | 33.1 | 249 | 39.3 | 225 | 36.2 | 262 | 38.5 | 34.4 | 40.3 | 855 | 37.3 |
| 7-9 | 65 | 18.1 | 81 | 12.8 | 98 | 15.8 | 112 | 16.4 | 15.6 | 15.4 | 356 | 15.5 |
| 10 or more | 91 | 25.3 | 168 | 26.5 | 176 | 28.3 | 184 | 27.0 | 31.2 | 22.3 | 619 | 27.0 |
| No opinion | 1 | .3 | 3 | .5 | 1 | .2 | 1 | .1 | .2 | .4 | 6 | .3 |
| **Friends/ neighbours** | | | | | | | | | | | | |
| None | 89 | 24.7 | 88 | 13.9 | 134 | 21.6 | 67 | 9.8 | 17.6 | 15.2 | 378 | 16.5 |
| 1-3 | 133 | 36.9 | 226 | 35.7 | 222 | 35.7 | 264 | 38.8 | 35.0 | 38.8 | 845 | 36.8 |
| 4-6 | 76 | 21.1 | 161 | 25.4 | 142 | 22.9 | 170 | 25.0 | 22.5 | 25.4 | 549 | 23.9 |
| 7-9 | 24 | 6.7 | 55 | 8.7 | 49 | 7.9 | 56 | 8.2 | 8.5 | 7.5 | 184 | 8.0 |
| 10 or more | 36 | 10.0 | 101 | 16.0 | 73 | 11.8 | 123 | 18.1 | 16.0 | 12.9 | 333 | 14.5 |
| No opinion | 2 | .6 | 2 | .3 | 1 | .2 | 1 | .1 | .3 | .2 | 6 | .3 |
| **Total** | 360 | 100.0 | 633 | 100.0 | 621 | 100.0 | 681 | 100.0 | 100.0 | 100.0 | 2295 | 100.0 |

Table 47 Whether having professionals (teachers/ social workers etc.) you can talk to (QVII6)

| Having professionals to talk to | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| Yes | 259 | 71.9 | 464 | 73.3 | 476 | 76.7 | 519 | 76.2 | 72.5 | 77.4 | 1718 | 74.9 |
| No | 87 | 24.2 | 158 | 25.0 | 125 | 20.1 | 142 | 20.9 | 24.1 | 20.3 | 512 | 22.3 |
| No opinion | 14 | 3.9 | 11 | 1.7 | 20 | 3.2 | 20 | 2.9 | 3.3 | 2.3 | 65 | 2.8 |
| **Total** | 360 | 100.0 | 633 | 100.0 | 621 | 100.0 | 681 | 100.0 | 100.0 | 100.0 | 2295 | 100.0 |

Figures from Table 48 and Table 49 show that the majority of children indicated that they would seek help from classmates and friends. Since different platforms on the Internet, like chat rooms, MSN and Facebook are becoming common for children to communicate with their peers, it is likely that communication tools on the Internet provides a convenient help-seeking platform for children.

Table 48 Able to seek help for problems with homework (QVII7)

| Frequently/ almost always seek help from | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| a. Classmates | 231 | 64.2 | 411 | 64.9 | 404 | 65.1 | 492 | 72.2 | 65.4 | 68.8 | 1538 | 67.0 |
| b. Older schoolmates | 28 | 7.8 | 73 | 11.5 | 59 | 9.5 | 87 | 12.8 | 11.5 | 10.0 | 247 | 10.8 |
| c. Friends outside school | 31 | 8.6 | 79 | 12.5 | 72 | 11.6 | 100 | 14.7 | 12.2 | 12.4 | 282 | 12.3 |
| d. Teachers | 149 | 41.4 | 235 | 37.1 | 258 | 41.5 | 254 | 37.3 | 39.7 | 38.3 | 896 | 39.0 |
| e. Parents | 123 | 34.2 | 59 | 9.3 | 294 | 47.3 | 81 | 11.9 | 23.5 | 25.2 | 557 | 24.3 |
| f. Others[*] | 38 | 10.6 | 21 | 3.3 | 44 | 7.1 | 39 | 5.7 | 6.4 | 5.9 | 142 | 6.2 |

*Most of the respondents indicated brothers and sisters.

Table 49 Able to seek help for personal problems (QVII8)

| Frequently/ almost always seek help from | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | | Gender (N=2295) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10-13 | | 14-17 | | 10-13 | | 14-17 | | boy | girl | N | % |
| | n | % | n | % | n | % | n | % | % | % | | |
| a. Classmates | 165 | 45.8 | 353 | 55.8 | 279 | 44.9 | 374 | 54.9 | 48.8 | 53.5 | 1171 | 51.0 |
| b. Older schoolmates | 25 | 6.9 | 66 | 10.4 | 45 | 7.2 | 68 | 10.0 | 8.8 | 9.0 | 204 | 8.9 |
| c. Friends outside school | 51 | 14.2 | 166 | 26.2 | 92 | 14.8 | 187 | 27.5 | 20.5 | 22.8 | 496 | 21.6 |
| d. Teachers | 46 | 12.8 | 61 | 9.6 | 80 | 12.9 | 66 | 9.7 | 12.0 | 10.0 | 253 | 11.0 |
| e. Parents | 133 | 36.9 | 126 | 19.9 | 303 | 48.8 | 185 | 27.2 | 30.0 | 35.3 | 747 | 32.5 |
| f. Others[*] | 30 | 8.3 | 23 | 3.6 | 34 | 5.5 | 36 | 5.3 | 5.7 | 5.0 | 123 | 5.4 |

*Most of the respondents indicated brothers and sisters.


**Parents and children comparison**


Among the 1,837 households we successfully enumerated, we approached all the children aged between 10 and 17 in these households and eventually, we interviewed 2, 295. Since we have also already interviewed one parent in these households who are responsible to supervise and guide their children in using the Internet earlier, we were able to combine the two sets of data and compare the views of children with their parents on the pattern of Internet usage, methods of supervision, awareness of threats, and views about family relationship, etc. Since we asked each parent about their views, experience towards a particular child aged between 10 and 17 randomly selected if there was more than one. There were 28 cases that the child they had in mind were not available for interview when we revisited the households. As a result, we had a total of 1,809 matched parent-child pairs for our comparison.


*Time spent on the Internet*

When comparing parents' and children's view on time spent on the Internet, we can see that the figures are quite constant and more or less identical between parents and children. Their views on the length of time in using the Internet were congruent. This implies that there was no big difference between them in understanding how much time they had spent in using the Internet (Table 50 toTable 52).

Figure 1   Average number of hours spent on the Internet per day
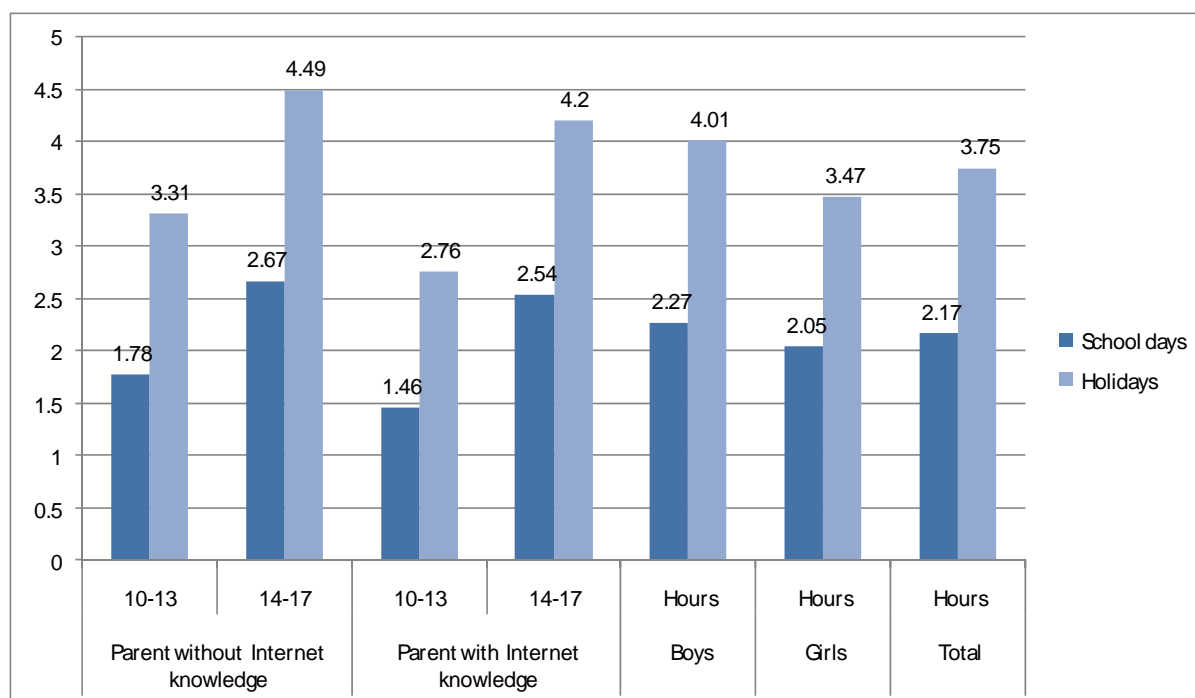


Table 50 Average time spent on the Internet by parents' Internet knowledge (Children: QII1 to QII2; Parents: QIV.6a, b)

| Average time spent on the Internet during school days | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| < 30 minutes | 77 | 10.2 | 61 | 8.1 | 85 | 8.1 | 76 | 7.2 |
| 30- 59 minutes | 57 | 7.5 | 69 | 9.1 | 125 | 11.9 | 135 | 12.8 |
| 60-89 minutes | 128 | 17.0 | 102 | 13.5 | 228 | 21.6 | 231 | 21.9 |
| 90-119 minutes | 40 | 5.3 | 53 | 7.0 | 57 | 5.4 | 100 | 9.5 |
| 120 minutes or more | 436 | 57.7 | 461 | 61.1 | 551 | 52.3 | 510 | 48.4 |
| Not sure | 17 | 2.3 | 9 | 1.2 | 8 | .8 | 2 | .2 |
| **Total** | 755 | 100.0 | 755 | 100.0 | 1054 | 100.0 | 1054 | 100.0 |
| **Average time a day (hrs)** | | | | | | | | |
| | (M, SD) | | (M, SD) | | (M, SD) | | (M, SD) | |
| During schools | (2.24, 1.63) | | (2.40, 1.81) | | (1.97, 1.46) | | (2.00, 1.56) | |
| During holidays | (4.07, 3.03) | | (4.12, 2.63) | | (3.74, 2.71) | | (3.50, 2.49) | |

Table 51 Time spent on the Internet by age of children (Children: QII1 to QII2; Parents: QIV.6a, b)

| | Age of children (10-13) | | | | Age of children (14-17) | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| < 30 minutes | 112 | 14.5 | 96 | 12.5 | 50 | 4.8 | 41 | 3.9 |
| 30- 59 minutes | 143 | 18.5 | 154 | 20.0 | 39 | 3.8 | 50 | 4.8 |
| 60-89 minutes | 200 | 25.9 | 189 | 24.5 | 156 | 15.0 | 144 | 13.9 |
| 90-119 minutes | 39 | 5.1 | 62 | 8.0 | 58 | 5.6 | 91 | 8.8 |
| 120 minutes or more | 267 | 34.6 | 263 | 34.1 | 720 | 69.4 | 708 | 68.2 |
| Not sure | 10 | 1.3 | 7 | .9 | 15 | 1.4 | 4 | .4 |
| **Total** | 771 | 100.0 | 771 | 100.0 | 1038 | 100.0 | 1038 | 100.0 |
| **Average time a day (hrs)** | | | | | | | | |
| | (M, SD) | | (M, SD) | | (M, SD) | | (M, SD) | |
| During schools | (1.46, 1.28) | | (1.53, 1.38) | | (2.54, 1.55) | | (2.63, 1.73) | |
| During holidays | (2.97, 2.49) | | (2.89, 2.28) | | (4.54, 2.91) | | (4.40, 2.58) | |

Table 52 Time spent on the Internet by gender of children (Children: QII1 to QII2; Parents:QIV.6a, b)

| | Boy | | | | Girl | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| < 30 minutes | 93 | 9.6 | 70 | 7.2 | 69 | 8.2 | 67 | 7.9 |
| 30- 59 minutes | 98 | 10.1 | 102 | 10.6 | 84 | 10.0 | 102 | 12.1 |
| 60-89 minutes | 171 | 17.7 | 182 | 18.8 | 185 | 21.9 | 151 | 17.9 |
| 90-119 minutes | 49 | 5.1 | 76 | 7.9 | 48 | 5.7 | 77 | 9.1 |
| 120 minutes or more | 540 | 55.9 | 533 | 55.2 | 447 | 53.0 | 438 | 52.0 |
| Not sure | 15 | 1.6 | 3 | .3 | 10 | 1.2 | 8 | .9 |
| **Total** | 966 | 100.0 | 966 | 100.0 | 843 | 100.0 | 843 | 100.0 |
| **Average time a day (hrs)** | | | | | | | | |
| | (M, SD) | | (M, SD) | | (M, SD) | | (M, SD) | |
| During schools | (2.14, 1.58) | | (2.25, 1.74) | | (2.01, 1.49) | | (2.07, 1.60) | |
| During holidays | (4.08, 2.98) | | (4.02, 2.68) | | (3.64, 2.66) | | (3.46, 2.39) | |

***Views about Internet usage***

Regarding views about Internet usage, i.e. the amount of time spent in using the Internet, most parents and children thought that the amount of time they spent was "about right". But generally speaking, children were more agreed with "about right" than their parents. On the other hand, more parents thought that the children spent too much time in using the Internet than the children themselves. This finding is particularly obvious when we analyze by children's age, as the percentage difference between parents' and their older children's views on spending too much time was the greatest (13.5%), as well as views between parents and their boys (13.1%, see Table 53 to Table 55).

These findings tell us that although "about right" was the most common view among the children and their parents, the definition of "too much" was still very different for parents and children, especially the parents without Internet knowledge, parents of older children, and

parents of the boys. Parents from these groups had stronger impression of children spending "too much" time on the Internet.
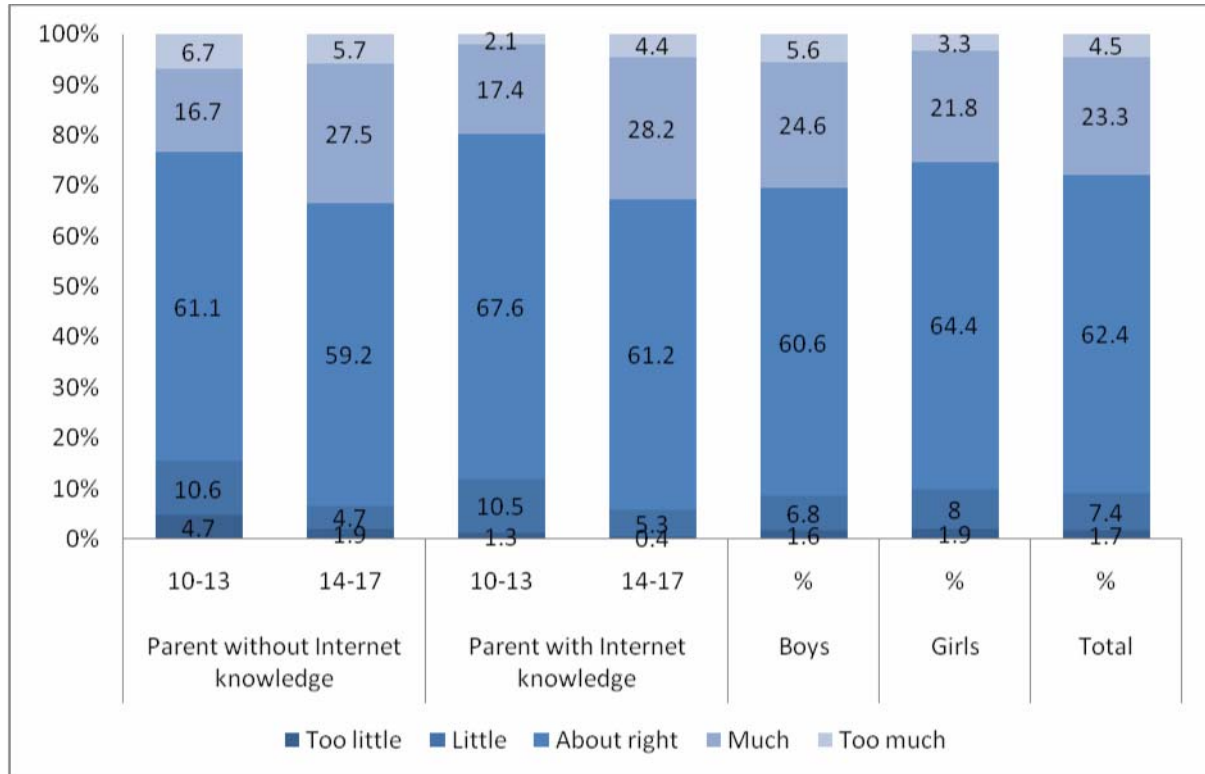
Figure 2 Views about Internet usage



Table 53 Views about Internet usage by parent's Internet knowledge (Children: QII3; Parents: QIV.7)

| Amount of time spent in using the Internet | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | n | % | n | % | n | % | n | % |
| Too little | 12 | 1.6 | 24 | 3.2 | 7 | .7 | 10 | .9 |
| Little | 39 | 5.2 | 60 | 7.9 | 70 | 6.6 | 78 | 7.4 |
| About right | 329 | 43.6 | 443 | 58.7 | 587 | 55.7 | 670 | 63.6 |
| Much | 148 | 19.6 | 179 | 23.7 | 229 | 21.7 | 248 | 23.5 |
| Too much | 137 | 18.1 | 45 | 6.0 | 143 | 13.6 | 39 | 3.7 |
| No opinion | 90 | 11.9 | 4 | .5 | 18 | 1.7 | 9 | .9 |
| **Total** | 755 | 100.0 | 755 | 100.0 | 1054 | 100.0 | 1054 | 100.0 |

Table 54 Views about Internet usage by age of children (Children: QII3; Parents: QIV.7)

| Amount of time spent in using the Internet | Age of children (10-13) | | | | Age of children (14-17) | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | n | % | n | % | n | % | n | % |
| Too little | 15 | 1.9 | 21 | 2.7 | 4 | .4 | 13 | 1.3 |
| Little | 74 | 9.6 | 85 | 11.0 | 35 | 3.4 | 53 | 5.1 |
| About right | 431 | 55.9 | 499 | 64.7 | 485 | 46.7 | 614 | 59.2 |
| Much | 125 | 16.2 | 131 | 17.0 | 252 | 24.3 | 296 | 28.5 |
| Too much | 84 | 10.9 | 28 | 3.6 | 196 | 18.9 | 56 | 5.4 |

| No opinion | 42 | 5.4 | 7 | .9 | 66 | 6.4 | 6 | .6 |
| **Total** | 771 | 100.0 | 771 | 100.0 | 1038 | 100.0 | 1038 | 100.0 |

Table 55 Views about Internet usage by gender of children (Children: QII3; Parents: QIV.7)

| Amount of time spent in using the Internet | Boy | | | | Girl | | | |
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | n | % | n | % | n | % | n | % |
| Too little | 10 | 1.0 | 15 | 1.6 | 9 | 1.1 | 19 | 2.3 |
| Little | 57 | 5.9 | 66 | 6.8 | 52 | 6.2 | 72 | 8.5 |
| About right | 459 | 47.5 | 577 | 59.7 | 457 | 54.2 | 536 | 63.6 |
| Much | 203 | 21.0 | 245 | 25.4 | 174 | 20.6 | 182 | 21.6 |
| Too much | 181 | 18.7 | 54 | 5.6 | 99 | 11.7 | 30 | 3.6 |
| No opinion | 56 | 5.8 | 9 | .9 | 52 | 6.2 | 4 | .5 |
| **Total** | 966 | 100.0 | 966 | 100.0 | 843 | 100.0 | 843 | 100.0 |

*Internet usage pattern*
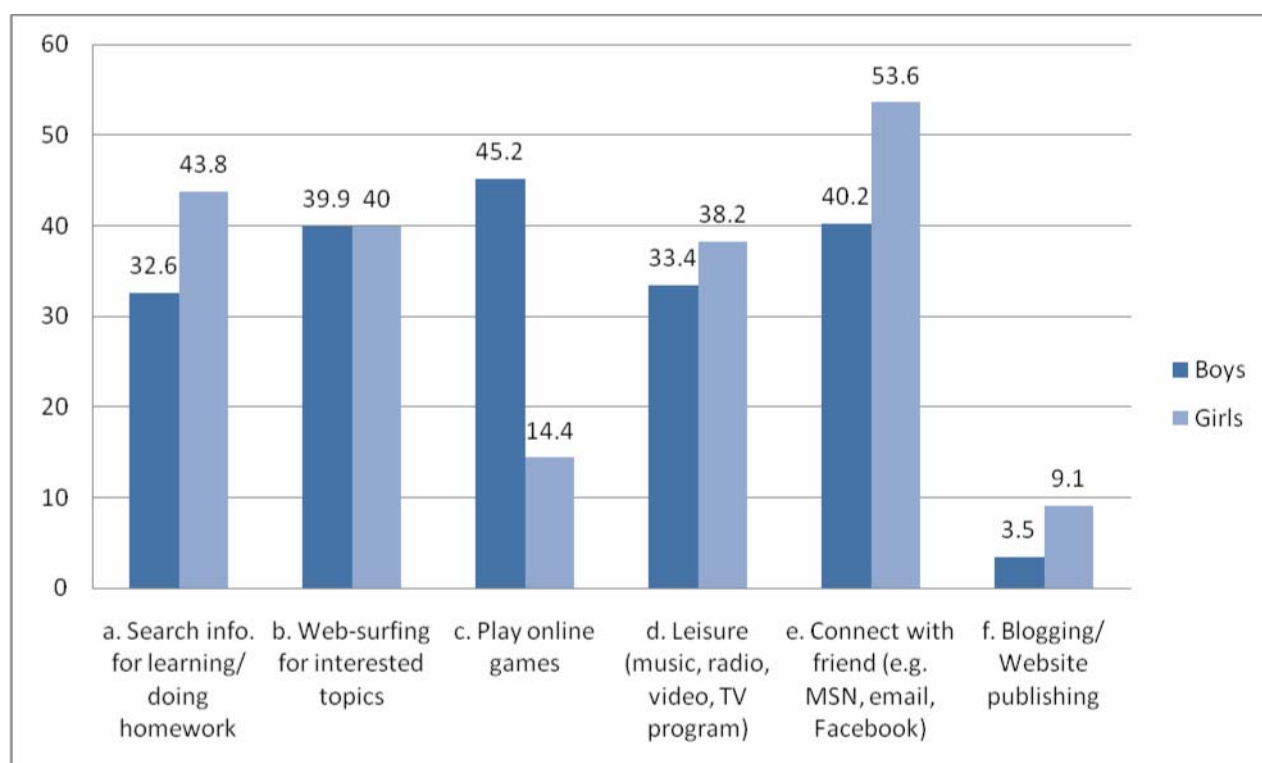
Table 56 to Table 58 present the comparison between parents and children regarding their frequency in using the Internet for various purposes. The values in the tables show the percentage of respondents who considered the frequency as frequently and always. Apparently, there were differences between the views of parents and children.

Overall speaking, parents had a higher estimation of the frequency of their children's use of the Internet in learning/doing homework, web-surfing for interested topics, and playing online game. However children reported a higher frequency of using the Internet for leisure purpose and for connecting with friends. These differences were statistically significant (Table 59). There was no difference in blogging and web publishing.

Figure 3  Frequency of Internet usage by children's gender
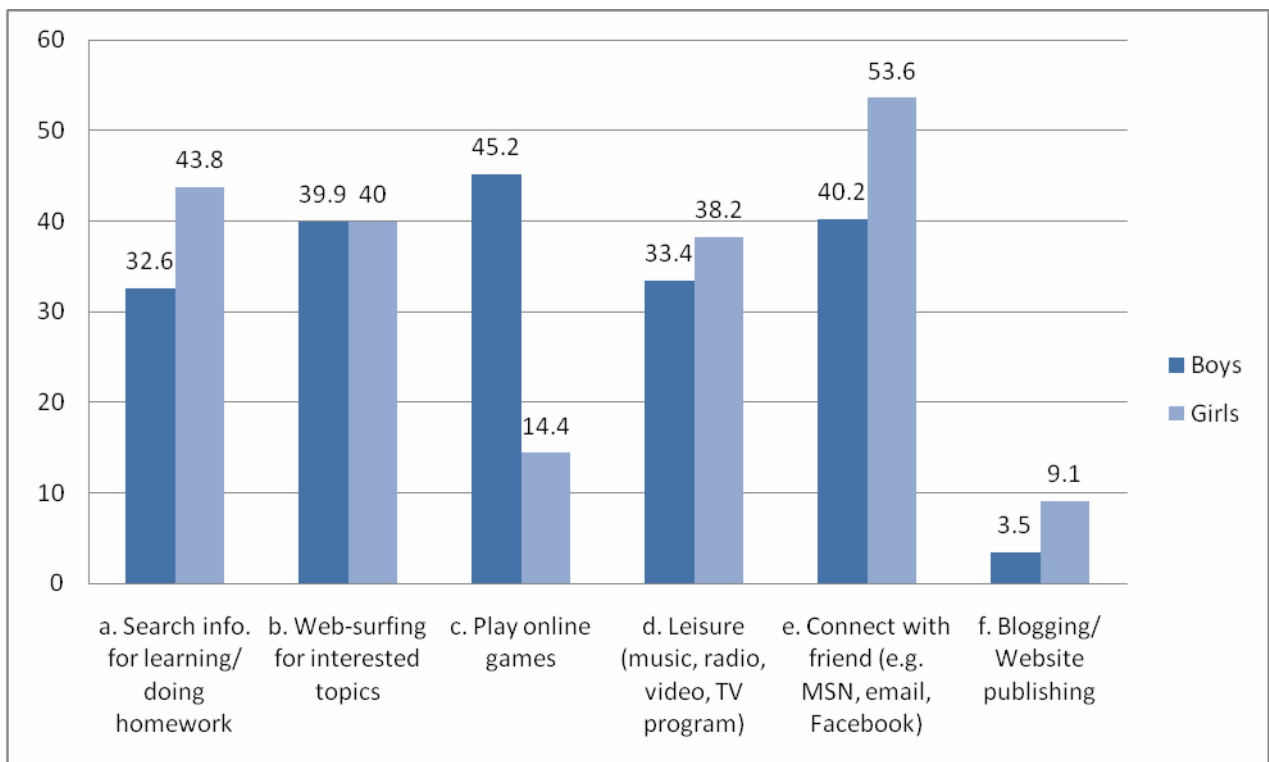
Table 56 Frequency of Internet usage by parent's Internet knowledge (Children: QII4a to QII4g; Parents: QIV.10)

| Frequently/ always use the Internet to | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| a. Search info. for learning/ doing homework | 353 | 46.8 | 279 | 37.0 | 581 | 55.1 | 431 | 40.9 |
| b. Web-surfing for interested topics | 307 | 40.7 | 332 | 44.0 | 475 | 45.1 | 404 | 38.3 |
| c. Play online games | 308 | 40.8 | 252 | 33.4 | 406 | 38.5 | 301 | 28.6 |
| d. Leisure (music, radio, video, TV program) | 223 | 29.5 | 291 | 38.5 | 306 | 29.0 | 352 | 33.4 |
| e. Connect with friend (e.g. MSN, email, Facebook) | 278 | 36.8 | 372 | 49.3 | 395 | 37.5 | 464 | 44.0 |
| f. Blogging/ Website publishing | 43 | 5.7 | 44 | 5.8 | 71 | 6.7 | 64 | 6.1 |

Table 57 Frequency of Internet usage by children's age (Children: QII4a to QII4g; Parents: QIV.10)

| Frequently/ always use the Internet to | Age of children (10-13) | | | | Age of children (14-17) | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| a. Search info. for learning/ doing homework | 412 | 53.4 | 311 | 40.3 | 522 | 50.3 | 399 | 38.4 |
| b. Web-surfing for interested topics | 275 | 35.7 | 216 | 28.0 | 507 | 48.8 | 520 | 50.1 |
| c. Play online games | 316 | 41.0 | 263 | 34.1 | 398 | 38.3 | 290 | 27.9 |
| d. Leisure (music, radio, video, TV program) | 154 | 20.0 | 187 | 24.3 | 375 | 36.1 | 456 | 43.9 |
| e. Connect with friend (e.g. MSN, email, Facebook) | 177 | 23.0 | 221 | 28.7 | 496 | 47.8 | 615 | 59.2 |
| f. Blogging/ Website publishing | 30 | 3.9 | 32 | 4.2 | 84 | 8.1 | 76 | 7.3 |

Table 58 Frequency of Internet usage by children's gender (Children: QII4a to QII4g; Parents: QIV.10)

| Frequently/ always use the Internet to | Boy | | | | Girl | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| a. Search info. for learning/ doing homework | 452 | 46.8 | 324 | 33.5 | 482 | 57.2 | 386 | 45.8 |
| b. Web-surfing for interested topics | 404 | 41.8 | 392 | 40.6 | 378 | 44.8 | 344 | 40.8 |
| c. Play online games | 504 | 52.2 | 433 | 44.8 | 210 | 24.9 | 120 | 14.2 |
| d. Leisure (music, radio, video, TV program) | 262 | 27.1 | 323 | 33.4 | 267 | 31.7 | 320 | 38.0 |
| e. Connect with friend (e.g. MSN, email, Facebook) | 295 | 30.5 | 391 | 40.5 | 378 | 44.8 | 445 | 52.8 |
| f. Blogging/ Website publishing | 40 | 4.1 | 32 | 3.3 | 74 | 8.8 | 76 | 9.0 |

Table 59 Paired t tests between parents' and children's views about Internet usage

| Parent vs. children | Paired differences | | *t* | *df* |
| --- | --- | --- | --- | --- |
| | *Mean* | *SD* | | |
| a. Search info. for learning/ doing homework | .246 | 1.22 | 8.46*** | 1744 |
| b. Web-surfing for interested topics | .075 | 1.23 | 2.50* | 1678 |
| c. Play online games | .317 | 1.43 | 9.21*** | 1729 |
| d. Leisure (music, radio, video, TV program) | -.125 | 1.34 | -3.87*** | 1721 |
| e. Connect with friend (e.g. MSN, email, Facebook) | -.212 | 1.39 | -6.23*** | 1675 |
| f. Blogging/ Website publishing | -.010 | 1.26 | -.31 | 1459 |

Note: Cases who don't know, no opinion were excluded. A positive mean difference indicated that parents had a higher estimation of the frequency than their children. The scores ranged from 1 to 5, with 1 = never/ very rarely, 5 = almost always. ***$p < .001$. **$p < .01$. *$p < .05$.

### *Location of computer at home*

Parents' knowledge on the Internet, age of children and gender of children did not have strong implications on where the computers were put at homes. Also, there were no obvious differences between parents' views and children's views in respect of the location of computer at home. Since location of computer was a very clear issue, so it had little difference and controversies between parents and children (Table 60 to Table 62).

Figure 4   Places at home to use the computer
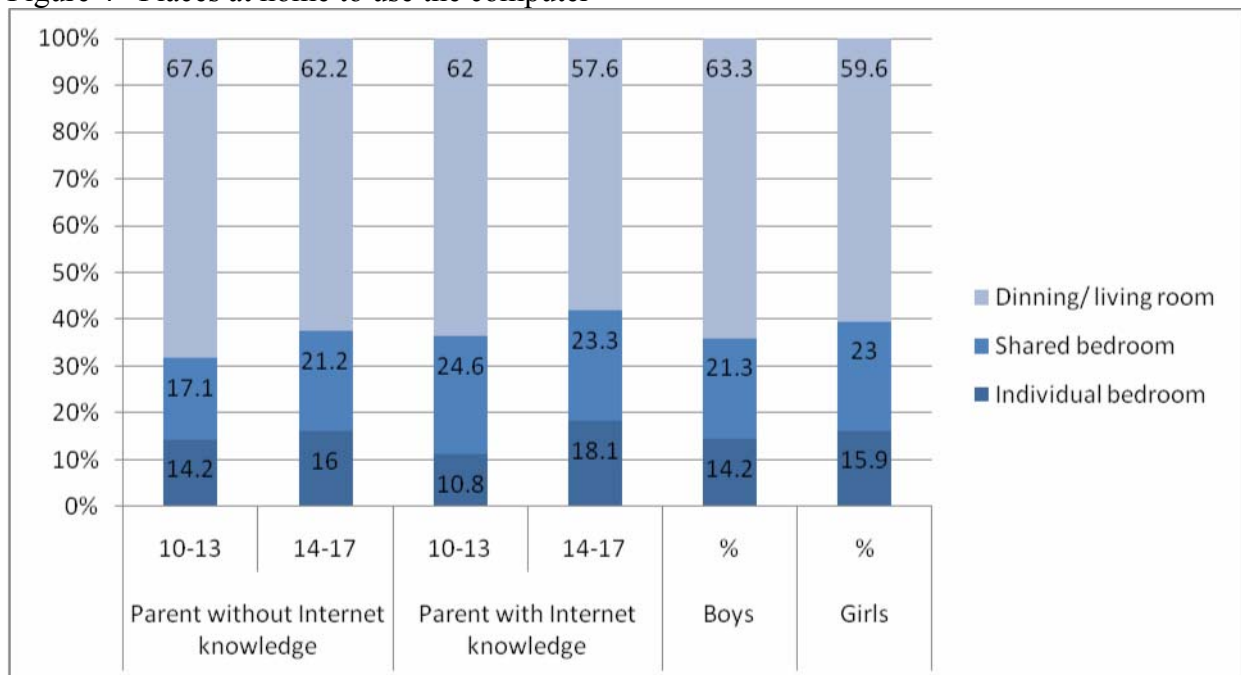
Table 60 Places at home to use the computer by parent's Internet knowledge (Children: QIII3; Parents: QIV.2)

| Places to use computer at home | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| Individual bedroom | 115 | 15.9 | 123 | 16.8 | 153 | 14.6 | 166 | 15.9 |
| Shared bedroom | 155 | 21.4 | 138 | 18.8 | 257 | 24.5 | 248 | 23.7 |
| Dinning/ living room | 447 | 61.7 | 467 | 63.6 | 625 | 59.5 | 611 | 58.5 |
| Other places | 5 | .7 | 3 | .4 | 12 | 1.1 | 3 | .3 |
| No opinion | 3 | .4 | 3 | .4 | 3 | .3 | 17 | 1.6 |
| **Total** | 725 | 100.0 | 734 | 100.0 | 1050 | 100.0 | 1045 | 100.0 |

Table 61 Places at home to use the computer by age of children (Children: QIII3; Parents: QIV.2)

| Places to use computer at home | Age of children (10-13) | | | | Age of children (14-17) | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *N* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| Individual bedroom | 77 | 10.3 | 94 | 12.6 | 191 | 18.6 | 195 | 18.9 |
| Shared bedroom | 182 | 24.3 | 166 | 22.2 | 230 | 22.4 | 220 | 21.3 |
| Dinning/ living room | 477 | 63.8 | 470 | 62.8 | 595 | 57.9 | 608 | 59.0 |
| Other places | 6 | .8 | 5 | .7 | 11 | 1.1 | 1 | .1 |
| No opinion | 6 | .8 | 13 | 1.7 | 0 | .0 | 7 | .7 |
| **Total** | 748 | 100.0 | 748 | 100.0 | 1027 | 100.0 | 1031 | 100.0 |

Table 62 Places at home to use the computer by gender of children (Children: QIII3; Parents: QIV.2)

| Places to use computer at home | Boy | | | | Girl | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *N* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| Individual bedroom | 129 | 13.6 | 146 | 15.3 | 139 | 16.8 | 143 | 17.3 |
| Shared bedroom | 220 | 23.2 | 201 | 21.1 | 192 | 23.2 | 185 | 22.4 |
| Dinning/ living room | 586 | 61.8 | 591 | 62.1 | 486 | 58.8 | 487 | 58.9 |
| Other places | 10 | 1.1 | 2 | .2 | 7 | .8 | 4 | .5 |
| No opinion | 3 | .3 | 12 | 1.3 | 3 | .4 | 8 | 1.0 |
| **Total** | 948 | 100.0 | 952 | 100.0 | 827 | 100.0 | 827 | 100.0 |

***Whether parents can see the computer screen***

Same as the question on the location of computer at home, the issue of whether parents could see the computer screen had also very little difference between parents and children. Overall, their respective views on the visibility of the computer screens at home were consistent with each other (Table 63 to Table 65).

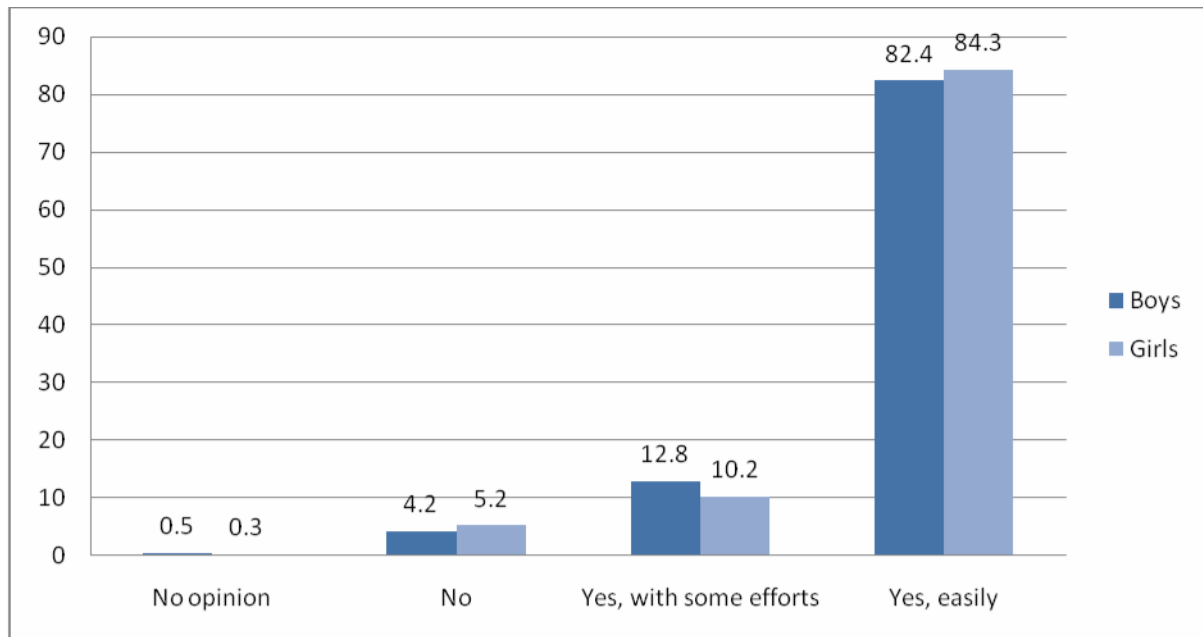Figure 5 Whether the parents can see the computer screens

Table 63 Whether parents can see the computer screen by parent's Internet knowledge (Children: QIII4; Parents: QIV.4)

| Whether able to see the screen | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | n | % | n | % | n | % | N | % |
| Yes, easily | 618 | 81.9 | 627 | 83.0 | 922 | 87.5 | 886 | 84.1 |
| Yes, with some efforts | 83 | 11.0 | 76 | 10.1 | 107 | 10.2 | 125 | 11.9 |
| No | 49 | 6.5 | 51 | 6.8 | 22 | 2.1 | 37 | 3.5 |
| No opinion | 5 | .7 | 1 | .1 | 3 | .3 | 6 | .6 |
| Total | 755 | 100.0 | 755 | 100.0 | 1054 | 100.0 | 1054 | 100.0 |

Table 64 Whether parents can see the computer screen by age of children (Children: QIII4; Parents: QIV.4)

| Whether able to see the screen | Age of children (10-13) | | | | Age of children (14-17) | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | n | % | n | % | n | % | n | % |
| Yes, easily | 688 | 89.2 | 669 | 86.8 | 852 | 82.1 | 844 | 81.3 |
| Yes, with some efforts | 49 | 6.4 | 66 | 8.6 | 141 | 13.6 | 135 | 13.0 |
| No | 29 | 3.8 | 31 | 4.0 | 42 | 4.0 | 57 | 5.5 |
| No opinion | 5 | .6 | 5 | .6 | 3 | .3 | 2 | .2 |
| Total | 771 | 100.0 | 771 | 100.0 | 1038 | 100.0 | 1038 | 100.0 |

Table 65 Whether parents can see the computer screen by gender of children (Children: QIII4; Parents: QIV.4)

| **Whether able to see the screen** | Boy | | | | Girl | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| Yes, easily | 820 | 84.9 | 800 | 82.8 | 720 | 85.4 | 713 | 84.6 |
| Yes, with some efforts | 105 | 10.9 | 121 | 12.5 | 85 | 10.1 | 80 | 9.5 |
| No | 37 | 3.8 | 41 | 4.2 | 34 | 4.0 | 47 | 5.6 |
| No opinion | 4 | .4 | 4 | .4 | 4 | .5 | 3 | .4 |
| **Total** | 966 | 100.0 | 966 | 100.0 | 843 | 100.0 | 843 | 100.0 |

*Whether children want their parents to see their computer screen*

Table 66 to Table 68 present the comparison between parents and children regarding whether children wanted their parents to see their computer screens. Apparently, there are some differences in the distribution of the responses; paired *t* test (Table 69) showed that none of these differences were statistically significant.

Figure 6 Whether children want their parents to see the computer screens
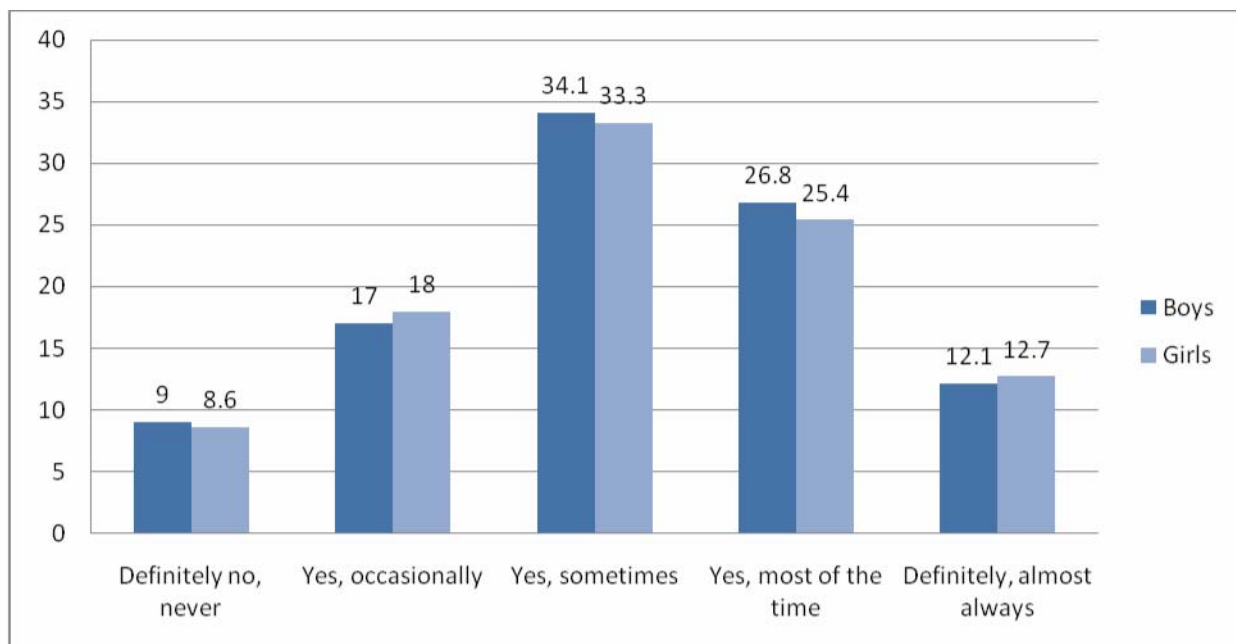
Table 66 Do you want your parent to see your computer screen by parent's Internet knowledge (Children: QIII5; Parents: QIV.5)

| Whether you want it or not | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| Definitely no, never | 115 | 15.2 | 66 | 8.7 | 122 | 11.6 | 87 | 8.3 |
| Yes, occasionally | 126 | 16.7 | 155 | 20.5 | 158 | 15.0 | 153 | 14.5 |
| Yes, sometimes | 174 | 23.0 | 251 | 33.2 | 301 | 28.6 | 350 | 33.2 |
| Yes, most of the time | 179 | 23.7 | 186 | 24.6 | 264 | 25.0 | 295 | 28.0 |
| Definitely, almost always | 132 | 17.5 | 88 | 11.7 | 202 | 19.2 | 146 | 13.9 |
| Never mind | 0 | .0 | 5 | .7 | 0 | .0 | 19 | 1.8 |
| No opinion | 29 | 3.8 | 4 | .5 | 7 | .7 | 4 | .4 |
| **Total** | 755 | 100.0 | 755 | 100.0 | 1054 | 100.0 | 1054 | 100.0 |

Table 67 Do you want your parent to see your computer screen by age of children (Children: QIII5; Parents: QIV.5)

| Whether you want it or not | Age of children (10-13) | | | | Age of children (14-17) | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| Definitely no, never | 83 | 10.8 | 51 | 6.6 | 154 | 14.8 | 102 | 9.8 |
| Yes, occasionally | 99 | 12.8 | 99 | 12.8 | 185 | 17.8 | 209 | 20.1 |
| Yes, sometimes | 174 | 22.6 | 227 | 29.4 | 301 | 29.0 | 374 | 36.0 |
| Yes, most of the time | 227 | 29.4 | 250 | 32.4 | 216 | 20.8 | 231 | 22.3 |
| Definitely, almost always | 167 | 21.7 | 134 | 17.4 | 167 | 16.1 | 100 | 9.6 |
| Never mind | 0 | .0 | 9 | 1.2 | 0 | .0 | 15 | 1.4 |
| No opinion | 21 | 2.7 | 1 | .1 | 15 | 1.4 | 7 | .7 |
| **Total** | 771 | 100.0 | 771 | 100.0 | 1038 | 100.0 | 1038 | 100.0 |

Table 68 Do you want your parent to see your computer screen by gender of children (Children: QIII5; Parents: QIV.5)

| Whether you want it or not | Boy | | | | Girl | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| Definitely no, never | 124 | 12.8 | 87 | 9.0 | 113 | 13.4 | 66 | 7.8 |
| Yes, occasionally | 160 | 16.6 | 171 | 17.7 | 124 | 14.7 | 137 | 16.3 |
| Yes, sometimes | 243 | 25.2 | 323 | 33.4 | 232 | 27.5 | 278 | 33.0 |
| Yes, most of the time | 251 | 26.0 | 253 | 26.2 | 192 | 22.8 | 228 | 27.0 |
| Definitely, almost always | 170 | 17.6 | 121 | 12.5 | 164 | 19.5 | 113 | 13.4 |
| Never mind | 0 | .0 | 8 | .8 | 0 | .0 | 16 | 1.9 |
| No opinion | 18 | 1.9 | 3 | .3 | 18 | 2.1 | 5 | .6 |
| **Total** | 966 | 100.0 | 966 | 100.0 | 843 | 100.0 | 843 | 100.0 |

Table 69 Paired *t* tests between parents' and children's views about seeing computer screen

| Parent vs. children | Paired differences | | *t* | *df* |
|---|---|---|---|---|
| | *Mean* | *SD* | | |
| Parents without Internet knowledge | .030 | 1.674 | .513 | 716 |
| Parents with Internet knowledge | -.002 | 1.600 | -.039 | 1023 |
| Younger children (10-13) | -.015 | 1.664 | -.243 | 739 |
| Older children (14-17) | -.032 | 1.607 | .630 | 1000 |
| Boys | .037 | 1.637 | .699 | 936 |
| Girls | -.017 | 1.624 | -.304 | 803 |
| **Overall** | .012 | 1.63 | .309 | 1740 |

Note: Cases who indicated never mind and no opinion were excluded. None of the *t* values are statistically significant.

***Whether knowing children's online friends***

In respect of whether parents know children's online friends, views of parents and children had some obvious discrepancies. While there were fewer children saying that their parents knew none of their online friends, more parents claimed that they knew none of them. For the other items, the statistical pattern is also similar. Overall, parents underestimated their knowledge of children's online friends, and contrastingly children overestimated their parents' knowledge of their online friends.

In response to these findings, there might be a need to facilitate closer interaction and mutual understanding between parents and children in terms of knowing online friends. However, it was possible that parents and children had different interpretation of the meaning of "online friends", or parents might think that they did not know enough number of their children's online friends. But in fact, we have to note that quite a number of the children indicated that they did not have any online friends, so parents might have less chance to know them (Table 70 to Table 72).

Figure 7 Whether parents know their children's online friends
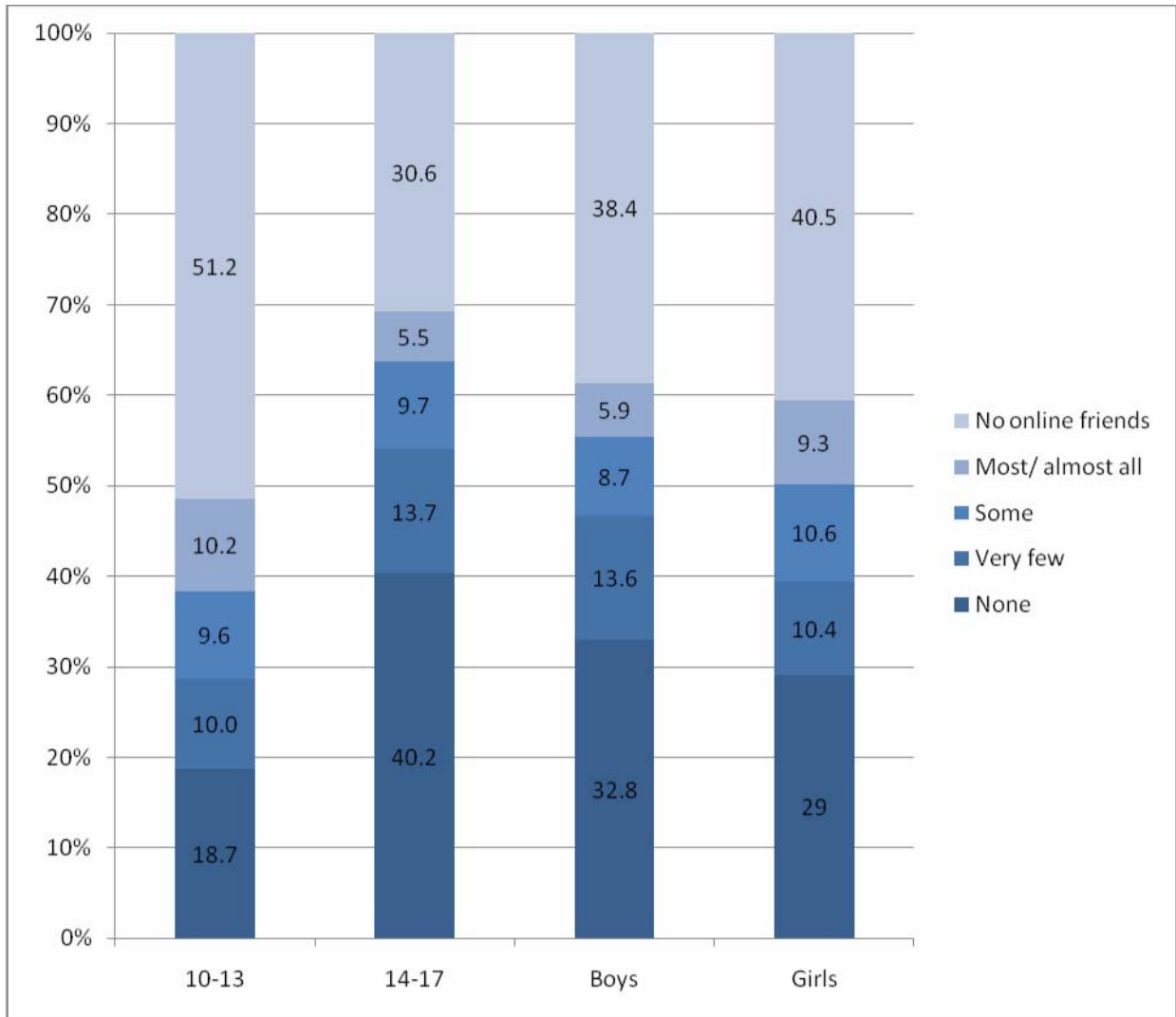


Table 70 Whether parents know your online friends by parent's Internet knowledge (Children: QIII6; Parents: QIV.8)

| No. of your online friends your parents know | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | n | % | n | % | n | % | n | % |
| None | 325 | 43.0 | 277 | 36.7 | 332 | 31.5 | 274 | 26.0 |
| Very few | 27 | 3.6 | 86 | 11.4 | 114 | 10.8 | 126 | 12.0 |
| Some | 36 | 4.8 | 62 | 8.2 | 104 | 9.9 | 117 | 11.1 |
| Most | 19 | 2.5 | 32 | 4.2 | 73 | 6.9 | 89 | 8.4 |
| Almost all | 4 | .5 | 12 | 1.6 | 39 | 3.7 | 13 | 1.2 |
| No online friends | 183 | 24.2 | 284 | 37.6 | 300 | 28.5 | 431 | 40.9 |
| No opinion | 161 | 21.3 | 2 | .3 | 92 | 8.7 | 4 | .4 |
| Total | 755 | 100.0 | 755 | 100.0 | 1054 | 100.0 | 1054 | 100.0 |

Table 71   Whether parents know your online friends by age of children (Children: QIII6; Parents: QIV.8)

| No. of your online friends your parents know | Age of children (10-13) | | | | Age of children (14-17) | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| None | 183 | 23.7 | 134 | 17.4 | 474 | 45.7 | 417 | 40.2 |
| Very few | 42 | 5.4 | 69 | 8.9 | 99 | 9.5 | 143 | 13.8 |
| Some | 55 | 7.1 | 77 | 10.0 | 85 | 8.2 | 102 | 9.8 |
| Most | 45 | 5.8 | 65 | 8.4 | 47 | 4.5 | 56 | 5.4 |
| Almost all | 24 | 3.1 | 20 | 2.6 | 19 | 1.8 | 5 | .5 |
| No online friends | 322 | 41.8 | 404 | 52.4 | 161 | 15.5 | 311 | 30.0 |
| No opinion | 100 | 13.0 | 2 | .3 | 153 | 14.7 | 4 | .4 |
| **Total** | 771 | 100.0 | 771 | 100.0 | 1038 | 100.0 | 1038 | 100.0 |

Table 72 Whether parents know your online friends by gender of children (Children: QIII6; Parents: QIV.8)

| No. of your online friends your parents know | Boy | | | | Girl | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| None | 361 | 37.4 | 315 | 32.6 | 296 | 35.1 | 236 | 28.0 |
| Very few | 71 | 7.3 | 129 | 13.4 | 70 | 8.3 | 83 | 9.8 |
| Some | 58 | 6.0 | 87 | 9.0 | 82 | 9.7 | 92 | 10.9 |
| Most | 42 | 4.3 | 48 | 5.0 | 50 | 5.9 | 73 | 8.7 |
| Almost all | 17 | 1.8 | 14 | 1.4 | 26 | 3.1 | 11 | 1.3 |
| No online friends | 273 | 28.3 | 369 | 38.2 | 210 | 24.9 | 346 | 41.0 |
| No opinion | 144 | 14.9 | 4 | .4 | 109 | 12.9 | 2 | .2 |
| **Total** | 966 | 100.0 | 966 | 100.0 | 843 | 100.0 | 843 | 100.0 |

***Whether talk about online experience***

Differences between the views of the parents and children on whether they talked about online experiences were also very great. We can note from the figures that more parents noted that they never or very rarely talked about online experiences than the children, particularly for the group of parents who did not know the Internet (47.8%). But for those parents with Internet knowledge, their difference with children was lesser than those who had no knowledge of it.

Overall speaking, younger children had less different views with their parents, and the difference between older children and their parents was comparatively higher. This was because younger children always tended to have closer interactions with parents, and parents would be able to undertake closer supervision upon them. But for children older than 14, the relationship would be different. Children began to develop their own personality and have their own habit in using the Internet, so they shared less with their parents about online experience (Table 73 to Table 75).

Figure 8 Whether children talk about what they have done on the Internet with their parents
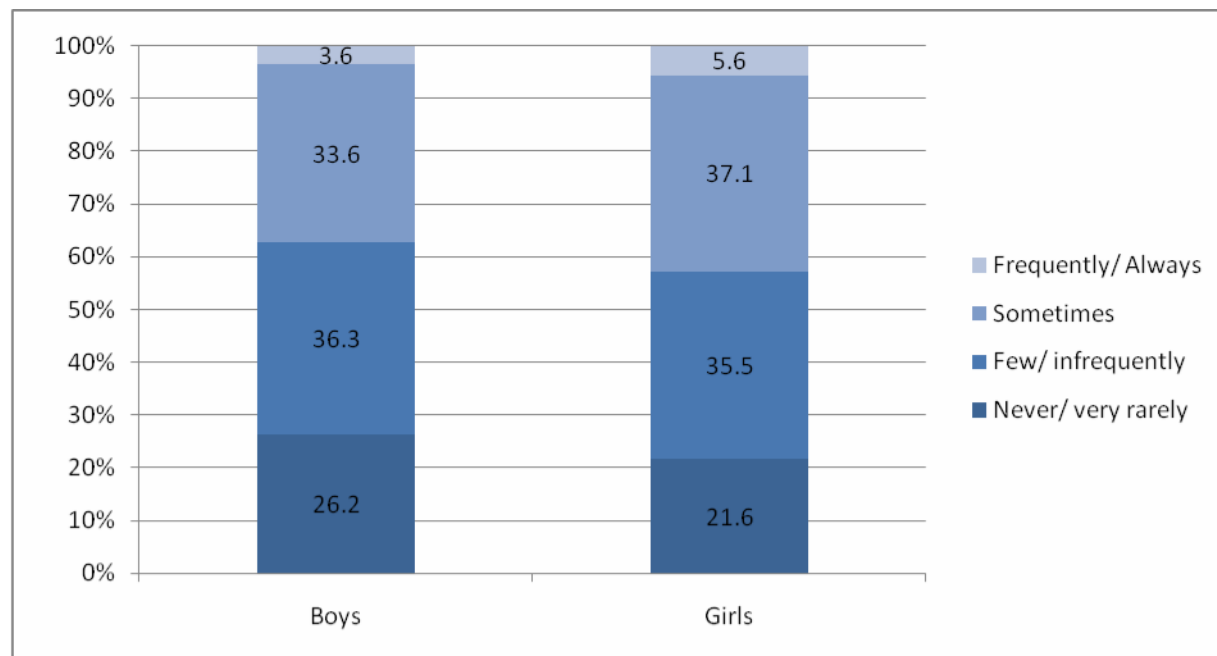


Table 73 Whether talk about what you have done on the Internet with parents by parent's Internet knowledge (Children: QIII7; Parents: QIV.9)

| Talk about it with your parents | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | n | % | n | % | n | % | n | % |
| Never/ very rarely | 361 | 47.8 | 215 | 28.5 | 211 | 20.0 | 213 | 20.2 |
| Few/ infrequently | 189 | 25.0 | 308 | 40.8 | 277 | 26.3 | 323 | 30.6 |
| Sometimes | 154 | 20.4 | 203 | 26.9 | 426 | 40.4 | 453 | 43.0 |
| Frequently | 33 | 4.4 | 20 | 2.6 | 87 | 8.3 | 50 | 4.7 |
| Almost always | 6 | .8 | 5 | .7 | 49 | 4.6 | 14 | 1.3 |
| No opinion | 12 | 1.6 | 4 | .5 | 4 | .4 | 1 | .1 |
| **Total** | 755 | 100.0 | 755 | 100.0 | 1054 | 100.0 | 1054 | 100.0 |

Table 74 Whether talk about what you have done on the Internet with parents by age of children (Children: QIII7; Parents: QIV.9)

| Talk about it with your parents | Age of children (10-13) | | | | Age of children (14-17) | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | n | % | n | % | n | % | n | % |
| Never/ very rarely | 209 | 27.1 | 157 | 20.4 | 363 | 35.0 | 271 | 26.1 |
| Few/ infrequently | 181 | 23.5 | 217 | 28.1 | 285 | 27.5 | 414 | 39.9 |
| Sometimes | 278 | 36.1 | 333 | 43.2 | 302 | 29.1 | 323 | 31.1 |
| Frequently | 58 | 7.5 | 47 | 6.1 | 62 | 6.0 | 23 | 2.2 |
| Almost always | 34 | 4.4 | 13 | 1.7 | 21 | 2.0 | 6 | .6 |
| No opinion | 11 | 1.4 | 4 | .5 | 5 | .5 | 1 | .1 |
| **Total** | 771 | 100.0 | 771 | 100.0 | 1038 | 100.0 | 1038 | 100.0 |

Table 75 Whether talk about what you have done on the Internet with parents by gender of children (Children: QIII7; Parents: QIV.9)

| Talk about it with your parents | Boy | | | | Girl | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| Never/ very rarely | 317 | 32.8 | 244 | 25.3 | 255 | 30.2 | 184 | 21.8 |
| Few/ infrequently | 260 | 26.9 | 342 | 35.4 | 206 | 24.4 | 289 | 34.3 |
| Sometimes | 298 | 30.8 | 342 | 35.4 | 282 | 33.5 | 314 | 37.2 |
| Frequently | 55 | 5.7 | 25 | 2.6 | 65 | 7.7 | 45 | 5.3 |
| Almost always | 28 | 2.9 | 11 | 1.1 | 27 | 3.2 | 8 | .9 |
| No opinion | 8 | .8 | 2 | .2 | 8 | .9 | 3 | .4 |
| **Total** | 966 | 100.0 | 966 | 100.0 | 843 | 100.0 | 843 | 100.0 |

Table 76 Paired t tests between parents' and children's views on talking about Internet activities

| Parent vs. children | Paired differences | | *t* | *df* |
|---|---|---|---|---|
| | *mean* | *SD* | | |
| Parents without Internet knowledge | -.226 | 1.204 | -5.104*** | 738 |
| Parents with Internet knowledge | -.147 | 1.308 | 3.635*** | 1048 |
| Younger children (10-13) | -.029 | 1.354 | -.591 | 755 |
| Older children (14-17) | -.009 | 1.222 | .229 | 1031 |
| Boys | -.004 | 1.244 | -.104 | 955 |
| Girls | -.011 | 1.319 | -.237 | 831 |
| **Overall** | -.007 | 1.279 | -.240 | 1787 |

*** $p < .001$. ** $p < .01$. * $p < .05$.

*Internet risks*

For the most part, parents and children showed similar level of concern about the Internet risks. The patterns were also very consistent. For example, parents without Internet knowledge and also their children showed higher concern about Internet risks, and vice versa; on the other hand, parents of younger children had less concern as their children did.

There are something in the findings listed below that we can have deeper analysis. First, for the pattern of the figures on risks in the downloaded materials, the children always showed higher concern than their parents. It might be due to the common phenomenon that children had higher Internet proficiency than their parents, so that they understood more about the potential risks of downloading software.

As for the issue of children using computer alone without parents around, parents tended to have higher concern in this, since most parents would like to monitor and understand more about their children's online activities. These statistical patterns tell us clearly about the respective concerns over different Internet risks of the parents and children (Table 77 to Table 79).

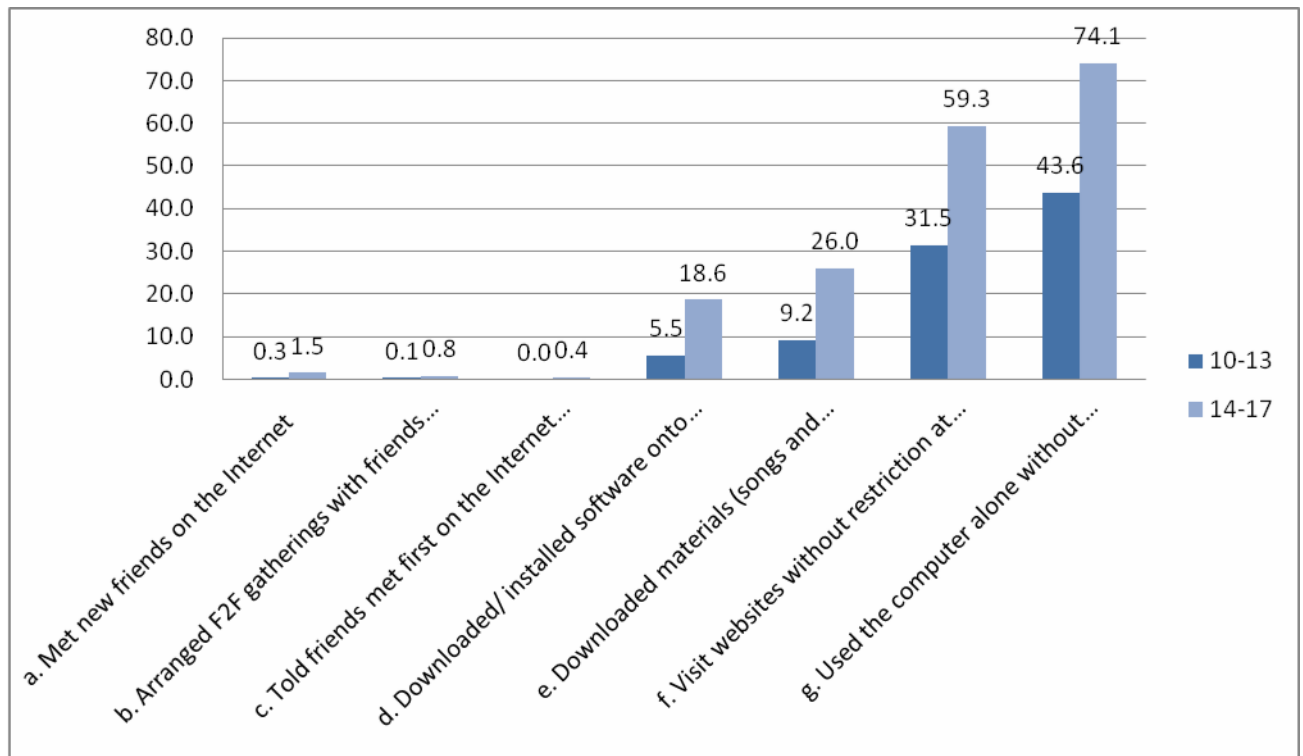Figure 9 Internet risks that children have encountered



Table 77 Internet risks by parent's Internet knowledge (Children: QIV1; Parents: QV.1a-g)

| Have done this frequently/almost always | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| a. Met new friends on the Internet | 5 | 0.7 | 8 | 1.1 | 2 | 0.2 | 9 | 0.9 |
| b. Arranged F2F gatherings with friends met first on the Internet? | 2 | 0.3 | 5 | 0.7 | 1 | 0.1 | 4 | 0.4 |
| c. Told friends met first on the Internet about info. of your family | 1 | 0.1 | 3 | 0.4 | 4 | 0.4 | 0 | 0.0 |
| d. Downloaded/ installed software onto your computer | 94 | 12.5 | 108 | 14.3 | 84 | 8.0 | 119 | 11.3 |
| e. Downloaded materials (songs and photos, etc) onto your computer | 116 | 15.4 | 138 | 18.3 | 120 | 11.4 | 190 | 18.0 |
| f. Visit websites without restriction[*] | 570 | 75.5 | 375 | 49.6 | 810 | 76.9 | 478 | 45.3 |
| g. Used the computer alone without your parents around | 563 | 74.6 | 494 | 65.4 | 655 | 62.1 | 604 | 57.3 |

[*]In the parents' questionnaire, the question asked was whether there was any restriction in the websites that the children are allowed to visit. In the above table, the number and percentage for parents indicated that the child has never/very rarely/ seldom been restricted to do so.

Table 78 Internet risks by age of children (Children: QIV1; Parents: QV.1a-g)

| Have done this frequently/almost always | Age of children (10-13) | | | | Age of children (14-17) | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| a. Met new friends on the Internet | 0 | 0.0 | 2 | 0.3 | 7 | 0.7 | 15 | 1.4 |
| b. Arranged F2F gatherings with friends met first on the Internet? | 0 | 0.0 | 1 | 0.1 | 3 | 0.3 | 8 | 0.8 |
| c. Told friends met first on the Internet about info. of your family | 3 | 0.4 | 0 | 0.0 | 2 | 0.2 | 3 | 0.3 |
| d. Downloaded/ installed software onto your computer | 40 | 5.2 | 39 | 5.1 | 138 | 13.3 | 188 | 18.1 |
| e. Downloaded materials (songs and photos, etc) onto your computer | 44 | 5.7 | 67 | 8.7 | 192 | 18.5 | 261 | 25.1 |
| f. Visit websites without restriction[*] | 585 | 75.8 | 245 | 31.8 | 795 | 76.6 | 608 | 58.6 |
| g. Used the computer alone without your parents around | 422 | 54.7 | 328 | 42.5 | 796 | 76.7 | 770 | 74.2 |

[*]In the parents' questionnaire, the question asked was whether there was any restriction in the websites that the children are allowed to visit. In the above table, the number and percentage for parents indicated that the child has never/very rarely/ seldom been restricted to do so.

Table 79 Internet risks by gender of children (Children: QIV1; Parents: QV.1a-g)

| Have done this frequently/almost always | Boy | | | | Girl | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| a. Met new friends on the Internet | 5 | 0.5 | 9 | 0.9 | 2 | 0.2 | 8 | 0.9 |
| b. Arranged F2F gatherings with friends met first on the Internet? | 2 | 0.2 | 5 | 0.5 | 1 | 0.1 | 4 | 0.5 |
| c. Told friends met first on the Internet about info. of your family | 3 | 0.3 | 2 | 0.2 | 2 | 0.2 | 1 | 0.1 |
| d. Downloaded/ installed software onto your computer | 109 | 11.3 | 148 | 15.3 | 69 | 8.2 | 79 | 9.4 |
| e. Downloaded materials (songs and photos, etc) onto your computer | 120 | 12.4 | 171 | 17.7 | 116 | 13.8 | 157 | 18.6 |
| f. Visit websites without restriction[*] | 741 | 76.7 | 446 | 46.2 | 639 | 75.8 | 407 | 48.3 |
| g. Used the computer alone without your parents around | 659 | 68.2 | 574 | 59.4 | 559 | 66.3 | 524 | 62.2 |

[*]In the parents' questionnaire, the question asked was whether there was any restriction in the websites that the children are allowed to visit. In the above table, the number and percentage for parents indicated that the child has never/very rarely/ seldom been restricted to do so.

### *Awareness of threats*

In general, parents showed higher level of concern over exposure of undesirable materials than their children. But for the children, they concerned more about the threats of cyber-bullying and the potentiality of being infected by computer viruses. Moreover, they also showed higher concern about the impact of the Internet on their schoolwork, resulted from

spending too much time on it.

These had reflected different values and impression about using the Internet between parents and children. As indecent and even pornographic materials were easily accessible on the Internet, parents would worry that their children would encounter these materials. What they concerned more was their children's morality. But the children had other concerns. They tended to worry about the threat of being bullied by someone online and their computers being infected. These were issues that would not be taken so seriously by the parents, as most of them would have less knowledge about issues happening in the cyber-world, even though they might know the Internet themselves. Therefore, different values in using the Internet and experiences between two sides could explain the gap as shown by the figures (Table 80 to Table 82).

Figure 10  Whether the children have heard of the possible threats on the Internet
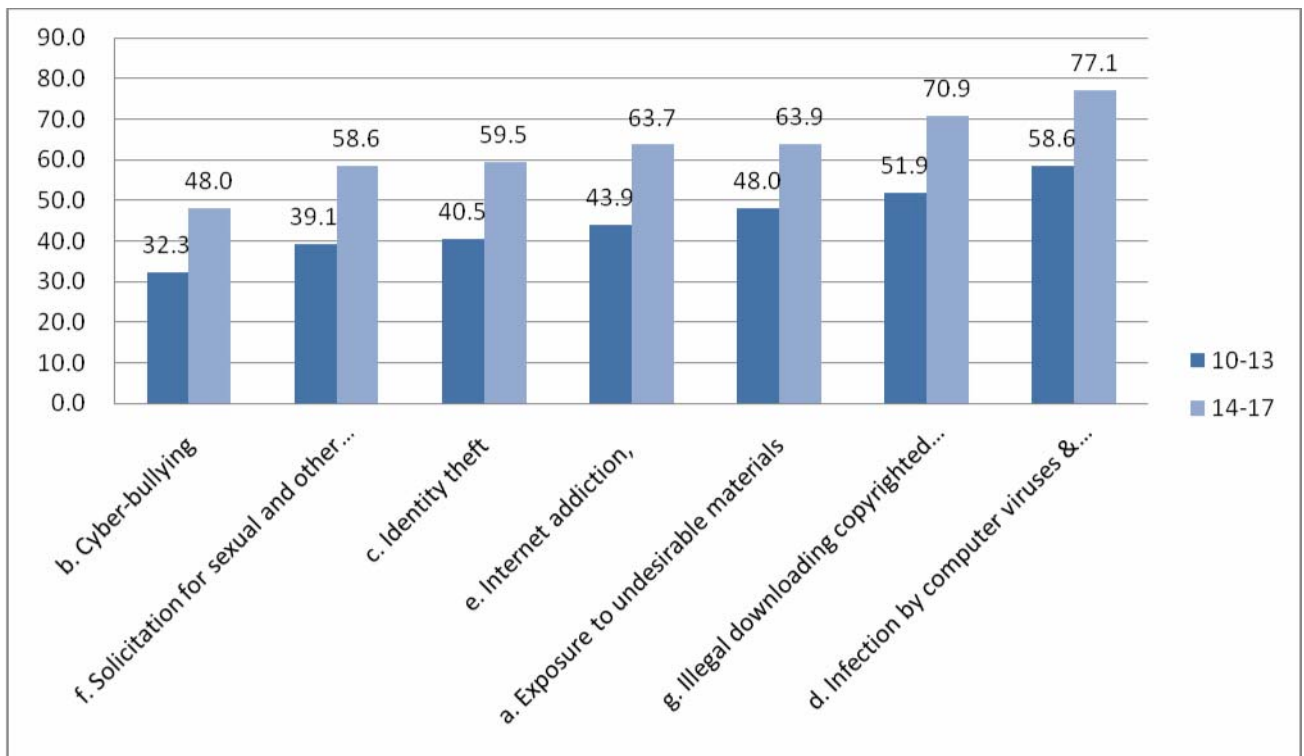
Table 80 Awareness of possible threats by parent's Internet knowledge (Children: QIV2; Parents: QV.2a-j)

| Have heard **AND** understood these threats | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| a. Exposure to indecent, pornographic materials | 456 | 60.4 | - | - | 814 | 77.2 | - | - |
| b. Exposure to materials related to gambling | 399 | 52.8 | - | - | 721 | 68.4 | - | - |
| c. Exposure to contents with violence & other undesirable contents | 397 | 52.6 | - | - | 715 | 67.8 | - | - |
| d. Exposure to undesirable materials (porno., gambling, drugs, violence, etc.)[*] | - | - | 442 | 58.5 | - | - | 614 | 58.3 |
| e. Cyber-bullying | 237 | 31.4 | 328 | 43.4 | 550 | 52.2 | 428 | 40.6 |
| f. Identity theft | 328 | 43.4 | 392 | 51.9 | 689 | 65.4 | 546 | 51.8 |
| g. Infection by computer viruses and other malicious software | 373 | 49.4 | 513 | 67.9 | 742 | 70.4 | 738 | 70.0 |
| h. Internet addiction, | 341 | 45.2 | 419 | 55.5 | 741 | 70.3 | 578 | 54.8 |
| i. Solicitation for sexual and other harmful activities | 337 | 44.6 | 399 | 52.8 | 707 | 67.1 | 531 | 50.4 |
| j. Illegal downloading copyrighted materials | 351 | 46.5 | 471 | 62.4 | 745 | 70.7 | 669 | 63.5 |
| k. Schoolwork suffering through spending too much time playing games and chatting with friends on the Internet | 506 | 67.0 | 18 | 94.7 | 848 | 80.5 | 20 | 87.0 |

[*]In the children's questionnaire, QIV2a combined the three corresponding questions in the parents' questionnaire (i.e. QV.2a,b,c)

Table 81 Awareness of possible threats by age of children (Children: QIV2; Parents: QV.2a-j)

| Have heard **AND** understood these threats | Age of children (10-13) | | | | Age of children (14-17) | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| a. Exposure to indecent, pornographic materials | 562 | 72.9 | - | - | 708 | 68.2 | - | - |
| b. Exposure to materials related to gambling | 487 | 63.2 | - | - | 633 | 61.0 | - | - |
| c. Exposure to contents with violence & other undesirable contents | 487 | 63.2 | - | - | 625 | 60.2 | - | - |
| d. Exposure to undesirable materials (porno., gambling, drugs, violence, etc.)[*] | - | - | 382 | 49.5 | - | - | 674 | 64.9 |
| e. Cyber-bullying | 343 | 44.5 | 251 | 32.6 | 444 | 42.8 | 505 | 48.7 |
| f. Identity theft | 436 | 56.5 | 318 | 41.2 | 581 | 56.0 | 620 | 59.7 |
| g. Infection by computer viruses and other malicious software | 492 | 63.8 | 455 | 59.0 | 623 | 60.0 | 796 | 76.7 |
| h. Internet addiction, | 477 | 61.9 | 335 | 43.5 | 605 | 58.3 | 662 | 63.8 |
| i. Solicitation for sexual and other harmful activities | 442 | 57.3 | 310 | 40.2 | 602 | 58.0 | 620 | 59.7 |
| j. Illegal downloading copyrighted materials | 473 | 61.3 | 404 | 52.4 | 623 | 60.0 | 736 | 70.9 |
| k. Schoolwork suffering through spending too much time playing games and chatting with friends on the Internet | 590 | 76.5 | 13 | 86.7 | 764 | 73.6 | 25 | 92.6 |

Table 82 Awareness of possible threats by gender of children (Children: QIV2; Parents: QV.2a-j)

| Have heard **AND** understood these threats | Boy | | | | Girl | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| a. Exposure to indecent, pornographic materials | 683 | 70.7 | - | - | 587 | 69.6 | - | - |
| b. Exposure to materials related to gambling | 605 | 62.6 | - | - | 515 | 61.1 | - | - |
| c. Exposure to contents with violence & other undesirable contents | 593 | 61.4 | - | - | 519 | 61.6 | - | - |
| d. Exposure to undesirable materials (porno., gambling, drugs, violence, etc.)* | - | - | 560 | 58.0 | - | - | 496 | 58.8 |
| e. Cyber-bullying | 404 | 41.8 | 391 | 40.5 | 383 | 45.4 | 365 | 43.3 |
| f. Identity theft | 538 | 55.7 | 491 | 50.8 | 479 | 56.8 | 447 | 53.0 |
| g. Infection by computer viruses and other malicious software | 594 | 61.5 | 665 | 68.8 | 521 | 61.8 | 586 | 69.5 |
| h. Internet addiction, | 587 | 60.8 | 540 | 55.9 | 495 | 58.7 | 457 | 54.2 |
| i. Solicitation for sexual and other harmful activities | 547 | 56.6 | 474 | 49.1 | 497 | 59.0 | 456 | 54.1 |
| j. Illegal downloading copyrighted materials | 583 | 60.4 | 605 | 62.6 | 513 | 60.9 | 535 | 63.5 |
| k. Schoolwork suffering through spending too much time playing games and chatting with friends on the Internet | 733 | 75.9 | 17 | 89.5 | 621 | 73.7 | 21 | 91.3 |

*In the children's questionnaire, QIV2a combined the three corresponding questions in the parents' questionnaire (i.e. QV.2a,b,c)

### *Methods and their effectiveness in supervising and guiding children*

We used the result of factor analysis of the 17 items regarding methods to supervise and guide their children in using the Internet mentioned earlier to reduce these items into four broad method types. The same factor structure was applied to parent and children data and the results are presented in Table 83 to Table 85. We asked the parents about their satisfaction of the results of each of the 17 methods; and for the children, we asked about what they thought were the effectiveness of each of these methods. The satisfaction and effectiveness of the four method types were computed based on the answers of the pertaining items.

The results indicated that both the parents and children indicated that restriction was the most common method, followed by involvement, setting rules and close monitoring. Parents without Internet knowledge regarded themselves as less likely to use all four method types than parents with Internet knowledge. However, the differences were not that strong among the experience of their children. Furthermore, parents with Internet knowledge indicated that they used all four method types more often than what their children thought.

Parents of younger children used all four methods more often than those with older children, and in general, there was a discrepancy between parents and children in their observation. Children tended to report a lower frequency of their parents using these methods than was reported by their parents themselves. Interestingly, while boys concurred with their

views of the parents in the frequency of the methods used, girls tended to report a lower percentage of frequent usage than their parents.

Apparently, parents' data showed that parents who used close monitoring and setting rules more often regarded these methods as more satisfactory. Since only a small percentage of parents used these two method types frequently, those who continued to use them naturally would regard them as satisfactory. In general, children tended to think that the effectiveness of the method types as lower comparing with the views of their parents regarding their satisfaction towards using the methods. There was an obvious exception. While around sixty percent of the parents who used restriction method type frequently indicated that they were satisfied with the method, over seventy percent of children said they were effective. But of course, it was not certain whether effectiveness would come with a price in terms of parent-child relationship.

Figure 11  Parents setting rules with children to supervise and guide children using the Internet
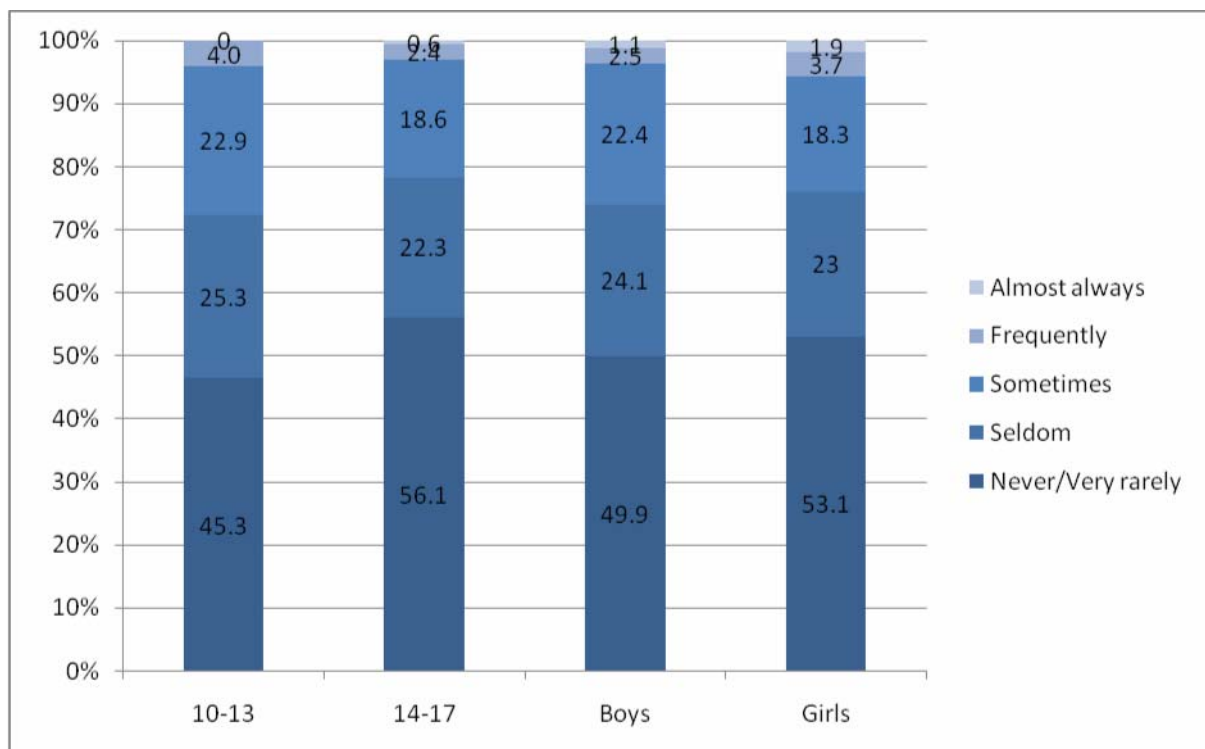
Figure 12 Parents using involvement to guide and supervise children using the Internet
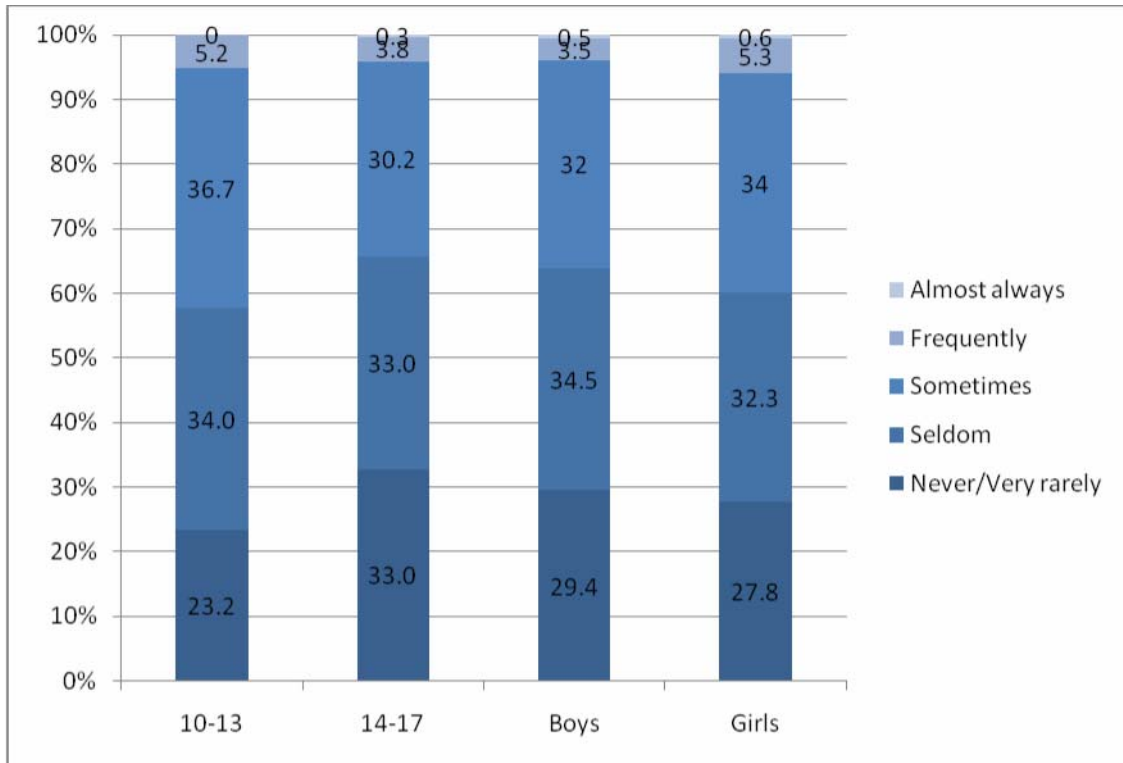


Figure 13 Parents using restriction to supervise and guide children using the Internet
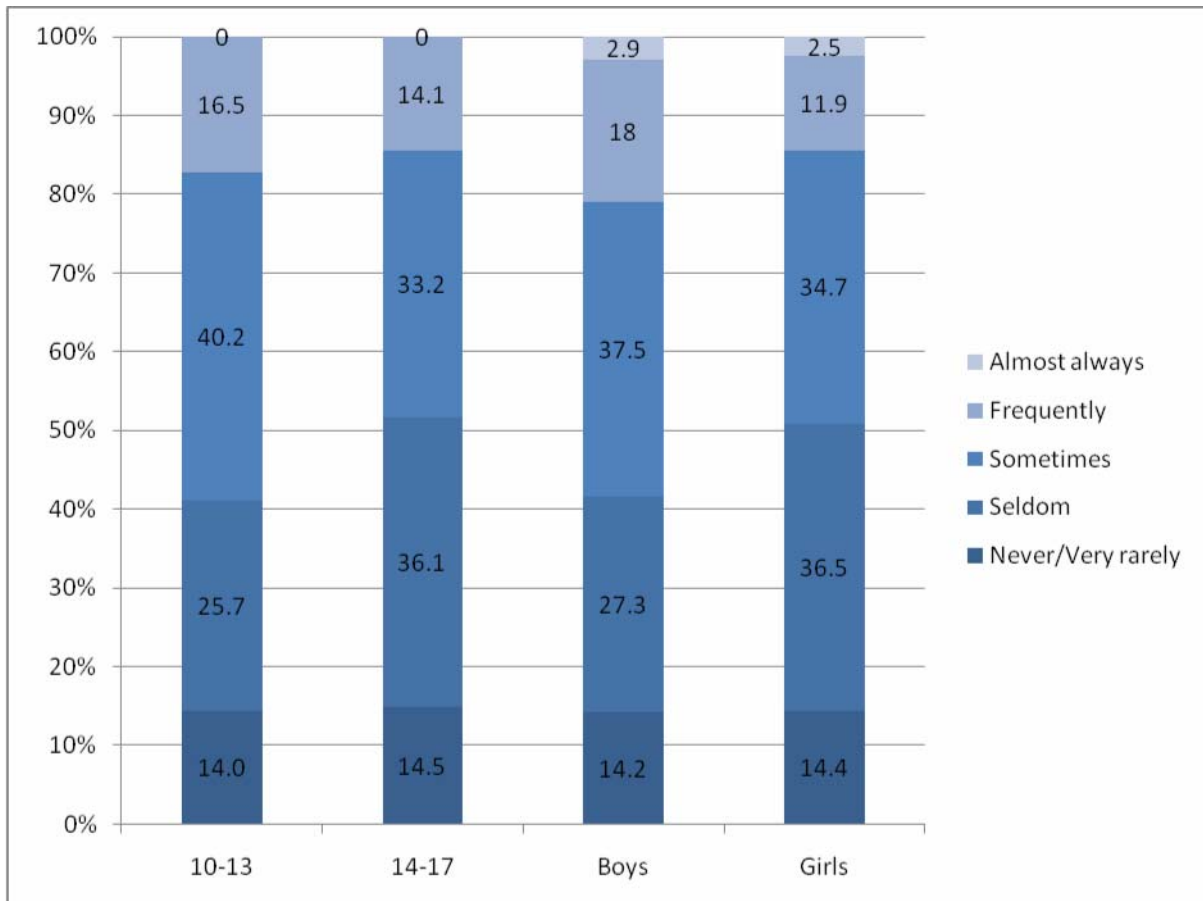
Figure 14  Parents using close monitoring to supervise and guide children using the Internet
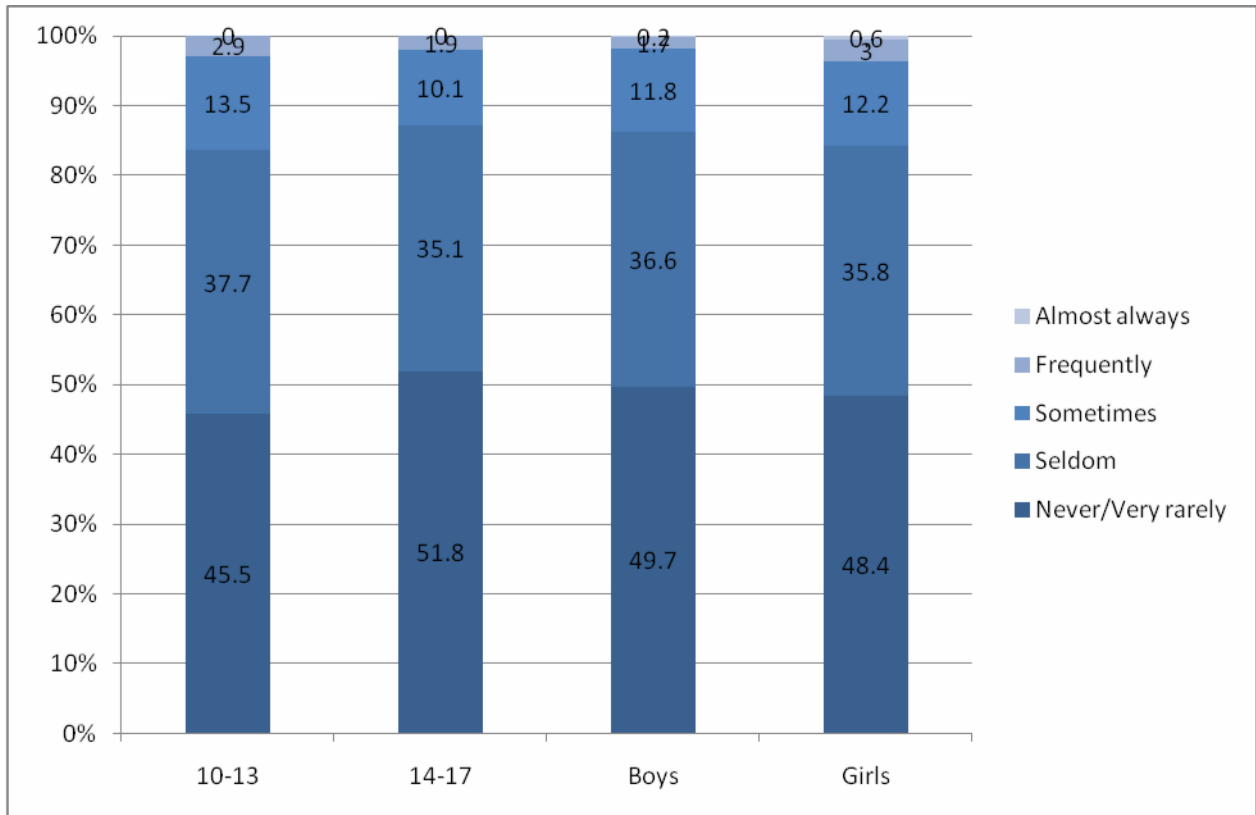


Table 83 Method types used by parents to supervise and guide you using the Internet and their effectiveness by parents' Internet knowledge (Children: QV2a-qi; Parents: QVI.1a-q)

| Method types (frequently/ almost always) used by parents | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | n | % | n | % | n | % | n | % |
| Setting rules | 18 | 2.4 | 30 | 4.0 | 88 | 8.4 | 61 | 5.8 |
| Avg. satisfaction/ effectiveness | 77.8% | | 64.2% | | 89.0% | | 68.0% | |
| Involvement | 27 | 3.6 | 29 | 3.9 | 137 | 13.1 | 67 | 6.4 |
| Avg. satisfaction/ effectiveness | 61.1% | | 62.1% | | 66.6% | | 66.8% | |
| Restriction | 96 | 13.2 | 139 | 18.7 | 277 | 28.1 | 183 | 17.7 |
| Avg. satisfaction/ effectiveness | 55.6% | | 68.1% | | 63.3% | | 76.9% | |
| Close monitoring | 3 | 0.4 | 14 | 1.9 | 40 | 3.8 | 35 | 3.4 |
| Avg. satisfaction/ effectiveness | 100.0% | | 54.8% | | 80.0% | | 59.0% | |

Note: Satisfaction and effectiveness referred to those who indicated that the results were satisfactory or very satisfactory (parents), and the methods were effective/ very effective. The results only included those respondents who had indicated that they themselves (for parents), and their parents (for children) had frequently/ almost always used these method types. The percentage was the average of the value of the pertaining items.

Table 84  Method types used by parents to supervise and guide you using the Internet and their effectiveness by age of children (Children: QV2a-q; Parents: QVI.1a-q)

| Methods types ( frequently/ almost always) used by parents | Age of children (10-13) | | | | Age of children (14-17) | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| Setting rules | 61 | 8.1 | 59 | 7.7 | 45 | 4.4 | 32 | 3.1 |
| Avg. satisfaction/ effectiveness | 93.0% | | 71.2% | | 79.4% | | 58.6% | |
| Involvement | 87 | 11.5 | 53 | 7.0 | 77 | 7.5 | 43 | 4.2 |
| Avg. satisfaction/ effectiveness | 65.5% | | 70.3% | | 65.9% | | 59.3% | |
| Restriction | 178 | 25.1 | 158 | 20.8 | 195 | 19.3 | 164 | 16.0 |
| Avg. satisfaction/ effectiveness | 63.5% | | 74.9% | | 59.3% | | 71.3% | |
| Close monitoring | 26 | 3.4 | 27 | 3.5 | 17 | 1.7 | 22 | 2.1 |
| Avg. satisfaction/ effectiveness | 79.5% | | 56.8% | | 84.3% | | 59.1% | |

Note:  Satisfaction and effectiveness referred to those who indicated that the results were satisfactory or very satisfactory (parents), and the methods were effective/ very effective. The results only included those respondents who had indicated that they themselves (for parents), and their parents (for children) had frequently/ almost always used these method types. The percentage was the average of the value of the pertaining items.

Table 85  Method types used by parents to supervise and guide you using the Internet and their effectiveness by gender of children (Children: QV2a-q; Parents: QVI.1a-q)

| Methods types ( frequently/ almost always) used by parents | Boy | | | | Girl | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| Setting rules | 46 | 4.8 | 40 | 4.2 | 60 | 7.2 | 51 | 6.1 |
| Avg. satisfaction/ effectiveness | 86.4% | | 68.1% | | 87.9% | | 65.7% | |
| Involvement | 73 | 7.7 | 40 | 4.2 | 91 | 10.9 | 56 | 6.8 |
| Avg. satisfaction/ effectiveness | 68.2% | | 67.5% | | 63.7% | | 63.8% | |
| Restriction | 205 | 22.2 | 203 | 21.3 | 168 | 21.1 | 119 | 14.4 |
| Avg. satisfaction/ effectiveness | 61.6% | | 73.9% | | 60.9% | | 71.7% | |
| Close monitoring | 21 | 2.2 | 19 | 2.0 | 22 | 2.6 | 30 | 3.6 |
| Avg. satisfaction/ effectiveness | 79.4% | | 57.9% | | 83.3% | | 57.8% | |

Note:  Satisfaction and effectiveness referred to those who indicated that the results were satisfactory or very satisfactory (parents), and the methods were effective/ very effective. The results only included those respondents who had indicated that they themselves (for parents), and their parents (for children) had frequently/ almost always used these method types. The percentage was the average of the value of the pertaining items.

Table 86  Children's views about the effectiveness of their parents' methods of supervising and guiding them in using the Internet

| Effectiveness | n | % |
|---|---|---|
| Not effective (no item selected) | 395 | 21.8 |
| A little effective (1-2 items) | 293 | 16.2 |
| Somewhat effective (3-4 items) | 376 | 20.8 |
| Effective (5-7 items) | 390 | 21.6 |
| Very effective (8 or more items) | 355 | 19.6 |
| Total | 1809 | 100.0 |

Note: There were eighteen items regarding the methods used by parents to supervise and guide their children in using the Internet in the questionnaire. The children were only required to indicate the effectiveness of a particular method should they reported that their parents had used that method. For those who had indicated none that is effective, it was referred to as "not effective"; for those who had indicated 1 or 2 items, it was "a little effective' for 3 or 4, it was "somewhat effective"; for 5 to 7, it was "effective", and for 8 or more, it was "very effective".

Table 87 indicates that over 1/4 of the parents interviewed did not satisfied with their own ability to help children benefit from the use of the Internet and protect them from the threats in using it.  Figures show that parents' Internet knowledge, adoption of authoritative parenting style and Internet using pattern, time being together with their children, willingness to help children learn and discover new things, and concern about Internet threats were relevant to their ability to benefit and protect their children with regard to the use of the Internet.

Table 87  Parents' ability to help your children benefit from the use of the Internet/help protect your children from possible Internet threats.

| Level of Satisfaction | Total | |
|---|---|---|
| | no. | % |
| **Your ability to help your children benefit from the use of the Internet** | | |
| **Very unsatisfied** | **288** | **10.1%** |
| **Satisfied** | **588** | **20.6%** |
| Hard to say | 773 | 27.1% |
| Satisfied | 1121 | 39.3% |
| Very Satisfied | 82 | 2.9% |
| **Your ability to help protect your children from possible Internet threats** | | |
| **Very unsatisfied** | **197** | **7.0%** |
| **Satisfied** | **419** | **14.7%** |
| Hard to say | 853 | 29.9% |
| Satisfied | 1300 | 45.6% |
| Very Satisfied | 79 | 2.8% |

*Satisfaction with family life*

Overall, the level of satisfaction with family life among both the children and parents was very high. Majority of them showed satisfaction in different aspects of life. The views of parents and children were also close to each other, thus we can explain that these are the common values shared by them (Table 88 to Table 90).

Figure 15  Children's satisfaction with family life
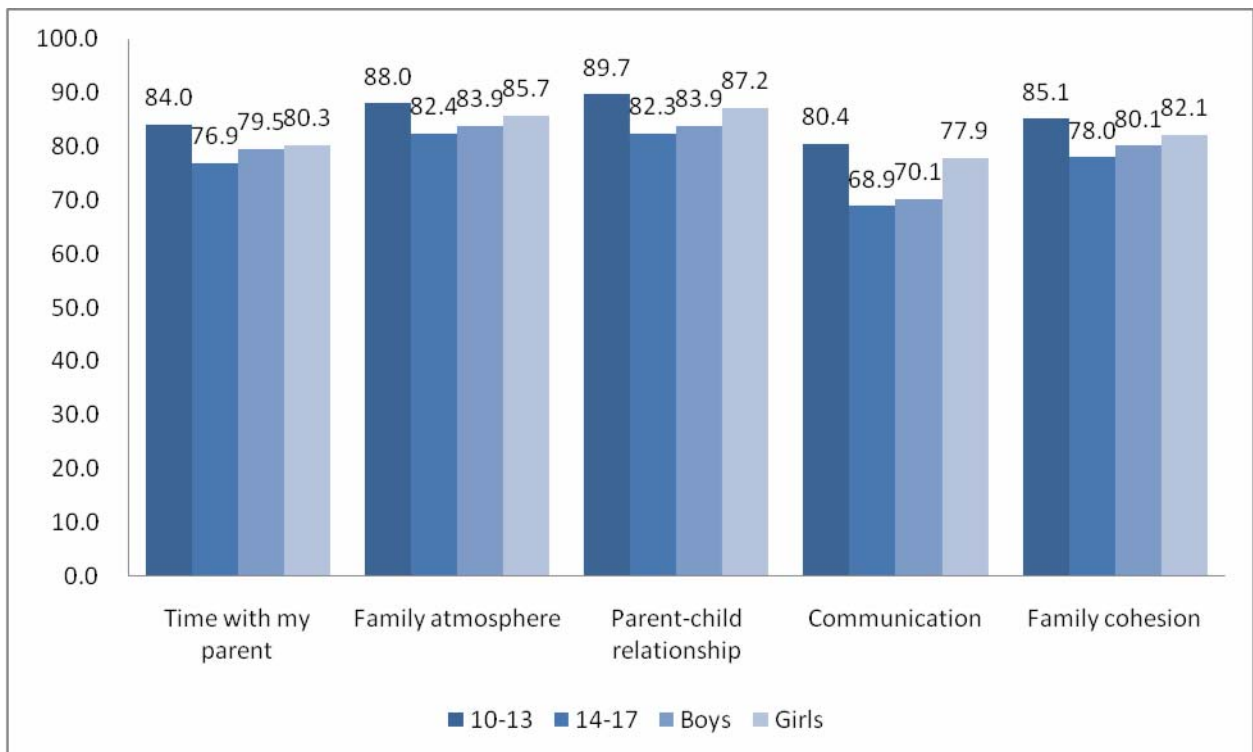


Table 88 Satisfaction with family life by parent's Internet knowledge (Children: QVI2; Parents: QVII.2)

| Satisfaction (Satisfied and very satisfied) | Parent without Internet knowledge | | | | Parent with Internet knowledge | | | |
|---|---|---|---|---|---|---|---|---|
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| a. Time being together with my parent | 536 | 71.0 | 579 | 76.7 | 865 | 82.1 | 878 | 83.3 |
| b. Family atmosphere | 600 | 79.5 | 623 | 82.5 | 941 | 89.3 | 919 | 87.2 |
| c. Parent-child relationship | 603 | 79.9 | 620 | 82.1 | 932 | 88.4 | 933 | 88.5 |
| d. Communication with family members | 543 | 71.9 | 526 | 69.7 | 865 | 82.1 | 817 | 77.5 |
| e. Family cohesion | 585 | 77.5 | 584 | 77.4 | 924 | 87.7 | 882 | 83.7 |

Table 89 Satisfaction with family life by age of children (Children: QVI2; Parents: QVII.2)

| Satisfaction (Satisfied and very satisfied) | Age of children (10-13) | | | | Age of children (14-17) | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| a. Time being together with my parent | 610 | 79.1 | 653 | 84.7 | 791 | 76.2 | 804 | 77.5 |
| b. Family atmosphere | 661 | 85.7 | 685 | 88.8 | 880 | 84.8 | 857 | 82.6 |
| c. Parent-child relationship | 666 | 86.4 | 697 | 90.4 | 869 | 83.7 | 856 | 82.5 |
| d. Communication with family members | 625 | 81.1 | 625 | 81.1 | 783 | 75.4 | 718 | 69.2 |
| e. Family cohesion | 656 | 85.1 | 659 | 85.5 | 853 | 82.2 | 807 | 77.7 |

Table 90 Satisfaction with family life by gender of children (Children: QVI2; Parents: QVII.2)

| Satisfaction (Satisfied and very satisfied) | Boy | | | | Girl | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Parents' view | | Children's view | | Parents' view | | Children's view | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| a. Time being together with my parent | 725 | 75.1 | 776 | 80.3 | 676 | 80.2 | 681 | 80.8 |
| b. Family atmosphere | 817 | 84.6 | 826 | 85.5 | 724 | 85.9 | 716 | 84.9 |
| c. Parent-child relationship | 820 | 84.9 | 824 | 85.3 | 715 | 84.8 | 729 | 86.5 |
| d. Communication with family members | 728 | 75.4 | 687 | 71.1 | 680 | 80.7 | 656 | 77.8 |
| e. Family cohesion | 807 | 83.5 | 779 | 80.6 | 702 | 83.3 | 687 | 81.5 |

**Explanatory models**

*Explaining the risks of Internet addiction*

In earlier sections of this report, we have discussed the measurement of Internet addiction. The scale has a range between 20 and 100, the higher the scores, the higher the risks of Internet addiction. In this study, respondents who reported having experience at least half of all the items (i.e. at least 10) frequently or more, the person is considered to be facing at least a medium level of risk in Internet addiction.

We have identified a number of possible factors (predictor variables) that are associated with the level of risks of Internet addiction among young people. These factors included parent's Internet knowledge, children's demographic background, parenting style, methods of parents to supervise and guide them in using the Internet, family relationship, pattern and frequency of Internet usage, awareness of Internet threats, self-esteem and peer relationships. These factors were described in earlier sections of this report.

Table 91 shows the Pearson correlations between the various predictor variables and the risks of Internet addiction. It is found out that almost all the selected variables had a significant association with the risks of Internet addiction. Only three variables under the "awareness of Internet threats" had no such association. They were the awareness and understanding the threat of "cyber-bullying," "infection by computer viruses," and "solicitation for sexual and other harmful activities." Multiple regression analysis was conducted to test the model that

involves all these predictor variables associated with the dependent variable.

Table 91 Correlations between various predictors and the risks of Internet addiction

| | r | df |
|---|---|---|
| **Parent's Internet Knowledge** | -.065** | 2215 |
| **Children's background** | | |
| Age of child (6-17) | .213*** | 2215 |
| Sex of child | .091*** | 2215 |
| **Parenting style** | | |
| Authoritative | -.085*** | 2180 |
| Authoritarian | .267*** | 2190 |
| Permissive | -.073** | 2196 |
| **Methods to supervise and guide** | | |
| Setting rules | .191*** | 2192 |
| Engage | .113*** | 2195 |
| Restriction | .352*** | 2183 |
| Close monitoring | .180*** | 2197 |
| **Family relationship** | | |
| Time being together with parent | -.190*** | 2211 |
| Family atmosphere | -.164*** | 2210 |
| Parent-child relationship | -.185*** | 2211 |
| Communication with family members | -.322*** | 2212 |
| Family cohesion | -.125*** | 2212 |
| **Pattern of computer usage** | | |
| Web-surfing | .194*** | 2205 |
| Play online games | .261*** | 2207 |
| Leisure purpose | .246*** | 2206 |
| Connect with friends | .236*** | 2214 |
| Blogging/ Website publishing | .136*** | 2214 |
| **Awareness of threat** | | |
| Exposure to undesirable materials | -.102*** | 2207 |
| ~~Cyber-bullying~~ | ~~-.026~~ | ~~2213~~ |
| Identity theft | -.050* | 2209 |
| ~~Infection by computer viruses~~ | ~~-.017~~ | ~~2213~~ |
| Internet addiction | .077*** | 2214 |
| ~~Solicitation for sexual and other harmful activities~~ | ~~-.128~~ | ~~2214~~ |
| Illegal downloading copyrighted materials | -.029* | 2212 |
| **Peer Relations** | -.095*** | 2171 |
| **Self-esteem** | -.139*** | 2192 |

Note: *r* refers to Pearson's correlation coefficient; *df* refers to degrees of freedom.
[1,2,3] Statistical tests showed that *r* was not non-zero at 0.05 significant level for these two variables. All the other tests of *r* were found to non-zeros at least at 0.05 significance level. ***$p < .001$. **$p < .01$.*$p < .05$.

Table 92 presents the four hierarchical multiple regression models accounting for the risks of Internet addiction. For factors that had a negative *beta* value, they could be considered as having a protective function against risks of Internet addiction. Conversely, factors that had a positive *beta* value could be considered as contributing factors to risks of internet addiction. The first model initially included demographic variables of the children, and parent's Internet knowledge. After running the regression analyses, parent's Internet knowledge was excluded from the model due to non-significant *beta* value. The second model further included family variables such as parenting style, methods to supervise and guide children using the Internet, and family relationship. The third model, in addition to the variables included in the previous models, added the pattern of Internet usage. The final model included the final set of variables for testing: peer relations and self-esteem, of which only peer relations had a significant *beta* value and was remained in the model.

In these models, having a parent with authoritative parenting style, better communication among family members, more time together with parents, better peer relationship, and higher awareness of the threat of solicitation for sexual and other harmful activities were such protective factors performed protective functions against risks of Internet addiction.

Regarding the contributing factors, having a parent with authoritarian parenting style, frequent usage of the Internet in gaming, connecting with friends, leisure, blogging, and web-surfing as well as feeling that parents using restrictive and rule setting method to supervise and guide them appeared to be contributing factors also. Older children also appeared to be at a higher risk too. The other predictor variables that were included in the test but were later excluded from the model implied that their original association with the dependent variable could be accounted for by other predicting variables in the model.

Table 92 Hierarchical multiple regression model for the risks of Internet addiction

| Factors | Beta | | | |
|---|---|---|---|---|
| | Model 1 | Model 2 | Model 3 | Model 4 |
| **Children's background** | | | | |
| Age of child (6-17) | .231[***] | .262[***] | .209[***] | .207[***] |
| Sex of child (boy=1, girl = 2) | -.124[***] | -.073 | -.038[*] | -.035 |
| Model1: Cumulative $R^2$ = .065, Cumulative $R^2_{adj}$ = .064 $F$ (18, 1978) = 82.373[***] | | | | |
| **Parenting style** | | | | |
| Authoritarian | | -.167[***] | .258[***] | .258[***] |
| Authoritative | | .234[***] | -.114[***] | -.093[***] |
| **Methods to supervise and guide** | | | | |
| Restriction | | .288[***] | .227[***] | .234[***] |
| Setting rules | | .047[*] | .064[**] | .064[**] |
| Close monitoring | | .067[**] | .022 | .020 |
| **Family relationship** | | | | |
| Communication with family members | | -.157[***] | -.138[***] | -.132[***] |
| Time being together with parent | | -.063[**] | -.061[**] | -.055[**] |

Model 2: Cumulative $R^2$ = .338, Cumulative $R^2_{adj}$ = .335  $F$ (9, 1987) = 112.725[***]

| **Pattern of Internet usage** | | |
| --- | --- | --- |
| Play online games | .167[***] | .157[***] |
| Connect with friends | .126[***] | .135[***] |
| Leisure purpose | .071[**] | .071[**] |
| Blogging/ Web publishing | .070[***] | .063[**] |
| Web-surfing | .062[**] | .061[**] |
| **Awareness of threat** | | |
| Solicitation for sexual and other harmful activities | -.127[***] | -.124[***] |

Model 3: Cumulative $R^2$ = .420, Cumulative $R^2_{adj}$ = .415  $F$ (15, 1981) 95.478[***]

| **Peer Relations** | -.081[***] |
| --- | --- |

Model 4 Cumulative $R^2$ = .425, Cumulative $R^2_{adj}$ = .423  $F$ (16, 1980) = 91.559[***]

[***]$p$ < .001. [**]$p$ < .01.[*]$p$ < .05.

A comparison between the perception of parents and children aged 10-17 about parenting styles is presented in Table 92. Perceptions about whether the parents adopted authoritative, authoritarian (irritable/controlling) or permissive styles are analytically compared from the lowest level (1) to the highest (5). It was found that the difference between parents and children in viewing which parenting style was not very substantial, as we can note from the average mean scores for each parenting style29.

The biggest difference between the perceptions of parents and children was on authoritarian parenting style. More children (mean score 3.27) perceived their parents (2.6 in average) as adopting the authoritarian style. Relatively few parents and children thought that they used permissive style in parenting.

As for authoritative parenting style, which is being seen as the most desirable style of parenting, figures tell that a very high proportion of children perceiving their parents as using this style of parenting than their parents. More than 72% of the children indicated that their parents were authoritative, in contrast to only 52.8% from parents' own perception. With reference to authoritarian style, 34.1% of the children categorized their parents as authoritarian, which was higher than the perception of the parents (11% for irritable style and 19.4% for controlling style).

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29 The questionnaires for parents and children were not the same though they have the same underlying constructs. In factor analysis, the authoritarian style of the parents split into two sub-styles: authoritarian (irritable) and authoritarian (controlling).

Therefore, we can deduce from these figures that children in general had higher valuation on their parents than the parents perceived themselves. Their views on authoritative parenting style implicated that parents tended to be more "conservative" in evaluating their style in parenting. Figures on permissive parenting style further prove this posture – a significantly higher proportion of children considered their parents as permissive (11%), and there were only 3.7% of the parents thought so.

Table 93  Parenting style: Comparison between parents' report and children's (aged 10-17) perception

| | Authoritative | | | | Authoritarian | | | | | | | | Permissive | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Reported by Parents^ | | Perceived by Children | | Reported by Parents (Irritable) | | Reported by Parents (Controlling) | | Perceived by Children | | Reported by Parents | | Perceived by Children | | | |
| | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | | |
| 1 (Lowest) | 7 | 0.4 | 9 | 0.5 | 386 | 21.7 | 55 | 3.1 | 15 | 0.8 | 279 | 15.7 | 162 | 9.0 | | |
| 2 | 118 | 6.6 | 57 | 3.2 | 691 | 38.9 | 440 | 24.6 | 173 | 9.7 | 870 | 49.0 | 609 | 33.9 | | |
| 3 | 717 | 40.2 | 429 | 24.1 | 504 | 28.4 | 948 | 53.0 | 992 | 55.4 | 560 | 31.6 | 827 | 46.1 | | |
| 4 | 814 | 45.6 | 1232 | 69.2 | 165 | 9.3 | 317 | 17.7 | 529 | 29.5 | 63 | 3.6 | 192 | 10.7 | | |
| 5 (Highest) | 129 | 7.2 | 53 | 3.0 | 30 | 1.7 | 30 | 1.7 | 83 | 4.6 | 2 | 0.1 | 5 | 0.3 | | |
| All | 1785 | 100.0 | 1780 | 100.0 | 1776 | 100.0 | 1790 | 100.0 | 1792 | 100.0 | 1774 | 100.0 | 1795 | 100.0 | | |
| (Mean, SD*) | 3.53, 0.74 | | 3.71, 0.60 | | 2.30, 0.97 | | 2.90, 0.78 | | 3.27, 0.73 | | 2.23, 0.76 | | 2.59, 0.81 | | | |

* SD refers to standard deviation
^ This refers to parents of children aged 10-17

Table 93 to Table 95 present the correlations between parents' reported parenting styles and their children's perception about that by parents' Internet knowledge. For all parents regardless of their Internet knowledge, their reported authoritative parenting style was correlated to children's perception in authoritative and permissive parenting styles. As for both irritable and controlling authoritarian styles as reported by parents, it was highly correlated to permissive style perceived by children.

Table 94 presents the correlations between the perceptions of parents without Internet knowledge and their children. It is noted that authoritative style from parents' report was highly correlated to children's perception on authoritative style, and had a medium level of correlation with permissive parenting style perceived by children. For those parents with Internet knowledge (Table 96), their report on both irritable and controlling authoritarian parenting styles were associated with authoritative and permissive parenting styles from children's perceptions.

It is quite strange to see that overall, children's perception on permissive parenting had a very high correlation with parents' report on authoritative and authoritarian parenting styles, instead of having correlation with parents' perceptions of permissive style. This might implicate that there was a gap in what type of parenting style that parents had adopted between children's perceptions and how parents viewed themselves. Each side had diverse perceptions on what kind of parenting style that had adopted in the family.

Table 94　Correlations between parents' reported parenting styles and children's perception

| (All parents^ regardless of their Internet knowledge) | | Children's perception | | |
| --- | --- | --- | --- | --- |
| | | Authoritative | Authoritarian | Permissive |
| Parents' report | Authoritative | .101*** (1756) | .014 (1768) | .080** (1771) |
| | Authoritarian (Irritable) | -.088*** (1747) | -.023 (1759) | .119*** (1762) |
| | Authoritarian (Controlling) | -.025 (1761) | -.004 (1773) | .084*** (1776) |
| | Permissive | -.002 (1745) | -.007 (1757) | .040 (1760) |

Note: The decimal figures represent the Pearson correlation coefficient. The figure in the bracket represents the valid cases.
***$p < .001$. **$p < .01$. *$p < .05$　^ This refers to parents of children aged 10-17

Table 95  Correlations between parents' reported parenting styles and children's perception (for parents without Internet knowledge)

| Parents^ without internet knowledge | | Children's perception | | |
|---|---|---|---|---|
| | | Authoritative | Authoritarian | Permissive |
| Parents' report | Authoritative | 0.166*** (732) | 0.065 (743) | 0.117** (738) |
| | Authoritarian (Irritable) | -0.051 (726) | 0.026 (737) | 0.090* (732) |
| | Authoritarian (Controlling) | 0.059 (732) | 0.055 (743) | 0.087* (738) |
| | Permissive | 0.043 (722) | -0.017 (733) | 0.020 (728) |

Note: the decimal figures represent the Pearson correlation coefficient. the figure in the bracket represents the valid cases.
***p < .001. **p < .01. *p < .05    ^This refers to parents of children aged 10-17

Table 96 Correlations between parent's reported parenting styles and children's perception (for parents with Internet knowledge)

| Parents^ with Internet knowledge | | Children's perception | | |
|---|---|---|---|---|
| | | Authoritative | Authoritarian | Permissive |
| Parents' report | Authoritative | 0.006 (1024) | -0.016 (1025) | 0.070* (1033) |
| | Authoritarian (Irritable) | -0.108** (1021) | -0.059 (1022) | 0.136*** (1030) |
| | Authoritarian (Controlling) | -0.093** (1029) | -0.046 (1030) | 0.083** (1038) |
| | Permissive | -0.049 (1023) | 0.001 (1024) | 0.057 (1032) |

Note: The decimal figures represent the Pearson correlation coefficient. The figure in the bracket represents the valid cases.
***p < .001. **p < .01. *p < .05    ^This refers to parents of children aged 10-17

*Explaining social engagement*

One of the major purposes of this study is to investigate whether the use of the Internet had an impact to the social engagement of children. In the previous section, we had described the current social engagement of our respondents. This study investigated the participations of respondents in their social involvement in a) social/community centres; b) schools; and with c) friends. The level of participation in each of these three aspects of activities had 5 levels: 1) never / very rarely; 2) few / infrequently; 3) sometimes; 4) frequently; and 5)almost always. If they played an organizing role in these activities, they would have level of participation in one of the three levels: 1) never/ very rarely and few/ infrequently; 2) sometimes; and 3) frequently and almost always, their participation score will be amplified.[30] The resulting score for each social activity ranged from 1 to 15.

We tried to combine the three social activities into two broad categories, namely, a) social/centre and school activities; and b) all three activities. The first category denoted only civic participation, that is those in schools or communities/centres, and the second category included all three aspects of social activities, i.e. civic activities and private social activities with friends. As a result, the scores of civic activities ranged from 2 to 30, while the combined social activities ranged from 3 to 45.

Table 71 shows the association of these two categories of social activities with a number of predicting variables in our study. These variables included parents' Internet knowledge, children's demographic background, parenting style, family relationship, and time spent in and pattern of Internet usage. For the first category of social activities, sex of child and the frequency of using the Internet to search information / doing homework did not show any association with this dependent variable. On the other hand, the amount of time spent in using the Internet and the risks of Internet addiction did not appear to have association with social activities that involve all three aspects. Nevertheless, girls in this study tended to have a higher level of overall social involvement than boys.

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[30] The five levels of participation (1-5) will be multiplied by three levels of initiation (1-3). For example, a respondent indicated that his level of participation in school activities was 4, and his level of initiation was 2, his overall score in school activities was 4*2, or 8.

Figure 16  Children's social engagement (Frequently/Always)
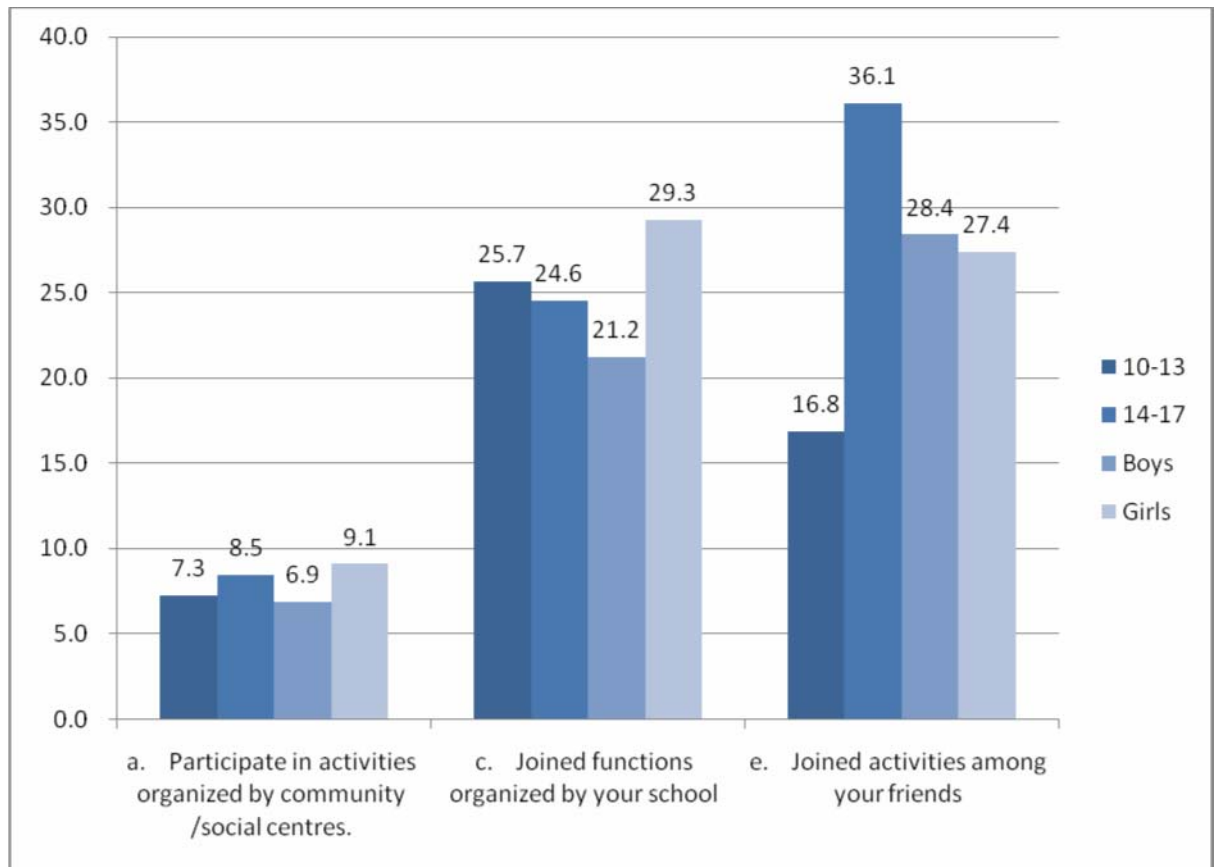


Table 97 Correlations between various predictor variables and children's social engagement

| | r (N) | |
|---|---|---|
| | Social engagement (schools and centres only) | Social engagement (including friends also) |
| **Parent's Internet knowledge** | .115 (2266)*** | .09 (2252)*** |
| **Children's background** | | |
| Age of child (10-17) | .126 (2266)*** | .107 (2252)*** |
| Sex of child | ~~.022 (2266)~~ | .157 (2252)*** |
| **Perceived parenting style** | | |
| Authoritative | .1 (2228)*** | .096 (2216)*** |
| Authoritarian | -.043 (2240* | -.062 (2226)** |
| Permissive | .125 (2246)*** | .119 (2232)*** |
| **Family relationship** | | |
| Time being together with parent | .086 (2261)*** | .046 (2247)* |
| Family atmosphere | .077 (2261)*** | .073 (2247)** |
| Parent-child relationship | .104 (2262)*** | .081 (2248)*** |

| | | |
|---|---|---|
| Communication with family members | .145 (2263)*** | .095 (2249)*** |
| Family cohesion | .061 (2262)** | .056 (2248)*** |
| **Amount of time/ Internet addiction** | | |
| Time spent on Internet during schools days | -.08 (2250)*** | ~~.014 (2236)~~ |
| Time spent on Internet during holidays | -.083 (2249)*** | ~~.003 (2235)~~ |
| Risks of Internet addiction | -.049 (2266)* | ~~-.003 (2252)~~ |
| **Pattern of computer usage** | | |
| Search information/ doing homework | ~~-.016 (2266)~~ | ~~-.002 (2252)~~ |
| Web-surfing | .072 (2256)** | .131 (2243)*** |
| Play online games | -.107 (2257)*** | -.095 (2243)*** |
| Leisure purpose | .068 (2257)** | .137 (2243)*** |
| Connect with friends | .1 (2264)*** | .19 (2251)*** |
| Blogging/ Website publishing | .152 (2265)*** | .192 (2251)*** |

Note: $r$ refers to Pearson's correlation coefficient; $N$ refers to the number non-missing cases.
[1,2,3] Statistical tests showed that $r$ was not non-zero at 0.05 significant level for these two variables. All the other tests of $r$ were found to non-zeros at least at 0.05 significance level. ***$p < .001$. **$p < .01$. *$p < .05$.

We examine the multiple regression model to account for the engagement in civic activities of the respondents. All the predictor variables that had an association with the dependent variable were included in the analysis. The result shows that parent's Internet knowledge, being girl, having either an authoritative or permissive parenting style, good communication with family members, spending less time on schools days, and spending less time in playing online games but using the Internet more in connecting with friends, blogging / web publishing, and surfing for information had a positive contribution to the level of civic engagement (Table 98).

The regression model explaining the social engagement of children (including civic and friendship activities) involved similar predicting variables as the previous model accounting only for children's civic engagement. Parents' Internet knowledge, parenting styles, pattern of Internet usage played the same role in accounting for their social engagement. Since social engagement involved also friendship activities, older children were more likely to be active than younger ones. Parent-child relationship also played a positive role in social engagement. Amount of time spent in using the Internet was excluded from the final model, probably either because activities with friends were very important that children seldom sacrificed or the effect of time was fully accounted for by other predicting factors in the model (Table 98).

Table 98 Multiple Regression model for social engagement

| Factors | Beta | |
|---|---|---|
| | Centres/Schools Activities | Centres/Schools /Friends Activities |
| **Parent's Internet knowledge** | .087[**] | .0887[***] |
| **Children's background** | | |
| Age of child | | .093[***] |
| Sex of child | .065[**] | .042 |
| **Parenting style** | | |
| Authoritative | .110[***] | .114[***] |
| Permissive | .117[***] | .106[***] |
| Authoritarian | .012 | -.022 |
| **Family relationship** | | |
| Communication with family members | .082[***] | |
| Parent-child relationship | | .076[**] |
| **Amount of time/ Internet addiction** | | |
| Time spent on Internet during schools days | -.086[***] | |
| **Pattern of Internet usage** | | |
| Play online games | -.062[**] | -.061[**] |
| Connect with friends | .061[*] | .084[**] |
| Blogging/ Web publishing | .114[***] | .127[***] |
| Web-surfing | .057[*] | .066[**] |

**Centres/schools activities only:**
    Cumulative $R^2$ = .096, Cumulative $R^2_{adj}$ = .092 $F(11, 213) = 20.75$[***]
**Centres/schools/friends activities:**
    Cumulative $R^2$ = .113, Cumulative $R^2_{adj}$ = .109 $F(11, 2145) = 24.966$[***]

[***] $p < .001$. [**] $p < .01$. [*] $p < .05$.

*Explaining self-esteem*

We attempted to use the information we have regarding children's family, pattern of Internet usage, and social engagement to understand how they together, contributed to two major aspects of the children's life: self-esteem and peer relationship. The two constructs had an interactive and dynamic relationship, we decided to treat both constructs as dependent variables in two different models, and use the other as one of the predicting variable in testing the respective regression model.

Firstly, we took self-esteem as the dependent variables. Again, major predicting factors, which included parent's Internet knowledge, children's background, parenting style, family relationship, Internet usage pattern, social engagement and peer relationship were included as independent variables.

Table 99 shows the Pearson's correlations between the dependent variable and the various predicting variables to be included in the model for testing. Most of the predicting variables had a high level of association with self-esteem, and were then included in the model for testing. Those that did not have a significant association, for example, children's demographic background, some aspects of Internet usage were excluded from the testing model.

Figure 17  Children's Self-esteem
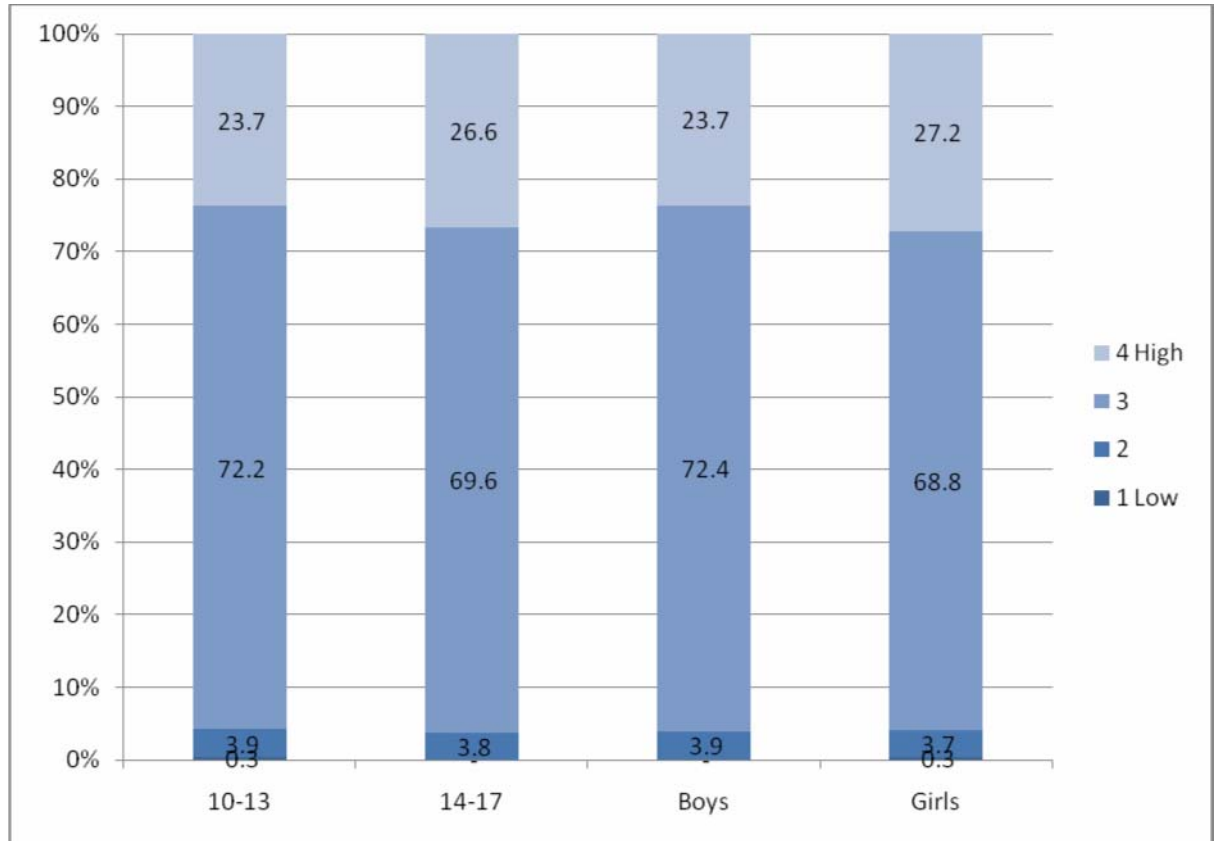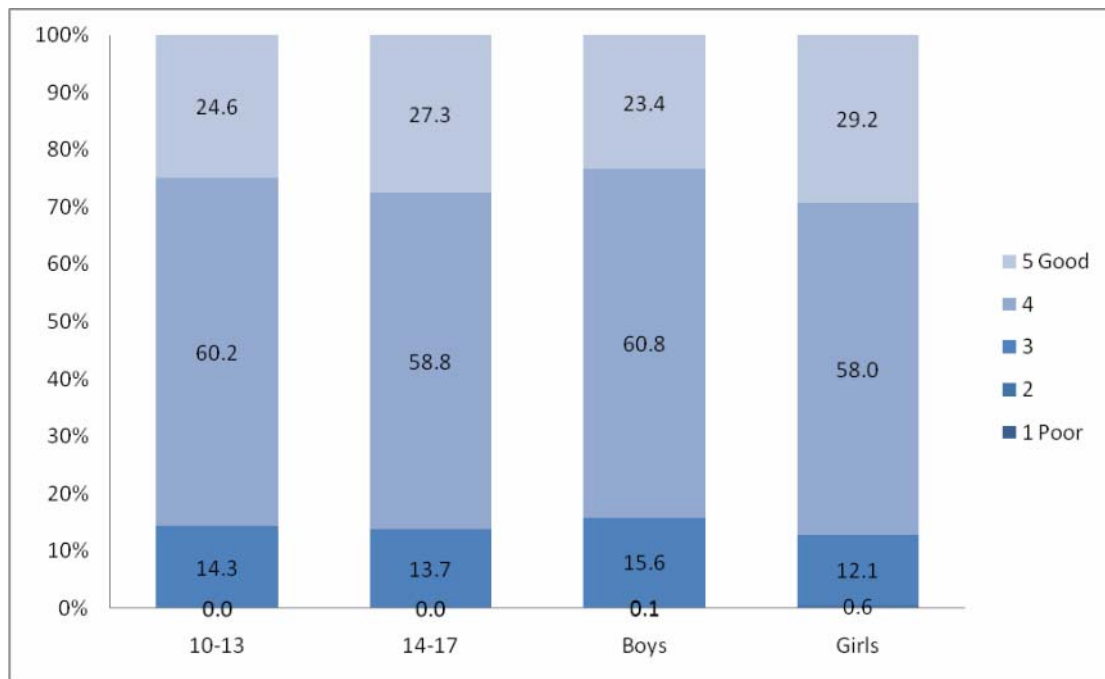
Table 99 Correlations between self-esteem and the predicting variables

| | Correlation with self-esteem | |
|---|---|---|
| | *r* | *N* |
| **Parent's Internet Knowledge** | .109*** | 2248 |
| **Children's background** | | |
| ~~Age of child (6-17)~~ | ~~.014~~ | ~~2248~~ |
| ~~Sex of child~~ | ~~.012~~ | ~~2248~~ |
| **Perceived parenting style** | | |
| Authoritative | .352*** | 2214 |
| Authoritarian | .119*** | 2225 |
| Permissive | -.197*** | 2231 |
| **Family relationship** | | |
| Time being together with parent | .230*** | 2243 |
| Family atmosphere | .303*** | 2244 |
| Parent-child relationship | .303*** | 2245 |
| Communication with family members | .213*** | 2245 |
| Family cohesion | .295*** | 2245 |
| **Time spent on Internet / Internet addiction** | | |
| Time spent on Internet during schools days | -.056** | 2231 |
| Time spent on Internet during holidays | -.060** | 2230 |
| Risks of Internet addiction | -.065** | 2248 |
| **Pattern of Internet usage** | | |
| ~~Search information/ doing homework~~ | ~~.009~~ | ~~2248~~ |
| ~~Web-surfing~~ | ~~.016~~ | ~~2237~~ |
| Play online games | -.067** | 2238 |
| Leisure purpose | -.056** | 2238 |
| ~~Connect with friends~~ | ~~-.031~~ | ~~2246~~ |
| Blogging/ Web publishing | -.136*** | 2247 |
| **Peer relationship** | .406*** | 2226 |
| **Social engagement (including friends)** | .080*** | 2207 |

Note: *r* refers to Pearson's correlation coefficient; *N* refers to the number non-missing cases.
[1,2,3] Statistical tests showed that *r* was not non-zero at 0.05 significant level for these two variables. All the other tests of *r* were found to non-zeros at least at 0.05 significance level. ***$p < .001$. **$p < .01$. *$p < .05$.

After testing the model, predicting variables that had a *beta* value whose *t* test results had a significant level of at least 0.1 was retained in the model. Table 100 shows the nine predicting variables retained in the model and their associated statistics. The model shows that having parents with Internet knowledge, authoritative parenting style, several aspects of family relationship had unique contributions to the self-esteem of children. Peer relationship, naturally had a great contribution to self-esteem as well. It

would be interesting to note that some aspects of the Internet usage that might have a strong link with self-esteem, such as connection with friends were not in the model. This was probably because its effect was fully accounted for by peer relationship in the model. Children involving more in blogging and web publishing activities had a lower level of self-esteem in the model as well. Also, children who had a stronger perception of their parents using permissive parenting style had a lower level of self-esteem as well.

Table 100 Multiple Regression model for self-esteem

| Factors | B | SE | Beta | $t$ |
|---|---|---|---|---|
| **Parent's Internet Knowledge** | .362 | .122 | .056 | 2.977[**] |
| **Parenting style** | | | | |
| Authoritative | .088 | .011 | .168 | 8.035[***] |
| Permissive | -.119 | .023 | -.103 | -5.222[***] |
| **Family relationship** | | | | |
| Family atmosphere | .397 | .145 | .080 | 2.731[**] |
| Parent-child relationship | .328 | .143 | .066 | 2.291[*] |
| Family cohesion | .251 | .133 | .054 | 1.897 |
| **Pattern of computer usage** | | | | |
| Leisure activities online | .138 | .059 | .047 | 2.337[*] |
| Blogging/ Web publishing | -.308 | .065 | -.093 | -4.732[***] |
| **Social engagement/Peer relationship** | | | | |
| Peer relationship | .195 | .014 | .286 | 14.250[***] |

Cumulative $R^2$ = .271, Cumulative $R^2_{adj}$ = .268  $F$ (9, 2081) = 86.114[***]

[***]$p < .001.$ [**]$p < .01.$ [*]$p < .05.$

Based on the regression model, we tried to construct a path model showing more clearly the relationship between the variables. It was difficult to include all the relevant variables in the path model, lest it would appear too complex in graphic presentation. The model include more salient variables in the previous models and tried to show the relationship between family factors, Internet addiction, peer relationship with self-esteem as the dependent variable. Figure 18 presents all the variables included in the model. *Beta* values associated with a significant *t* value were included in the figure. Relationships without a *beta* value associated with a significant *t* value were not shown for better visual effect. We could see that Internet addiction, which was associated with parent-child communication and frequency of playing online games, had no association with peer relationship and self-esteem of the children in the model. Peer relationship had a strong contribution to children' self-esteem in the model, so did parenting style and parent-child communication. Frequency of playing computer game did not have a direct association with self-esteem. Probably those playing well in online game had a positive effect to their self-esteem. However, playing online games more frequently had a negative impact on peer relationship, which was directly associated with children's self-esteem.

Figure 18 Path model for self-esteem
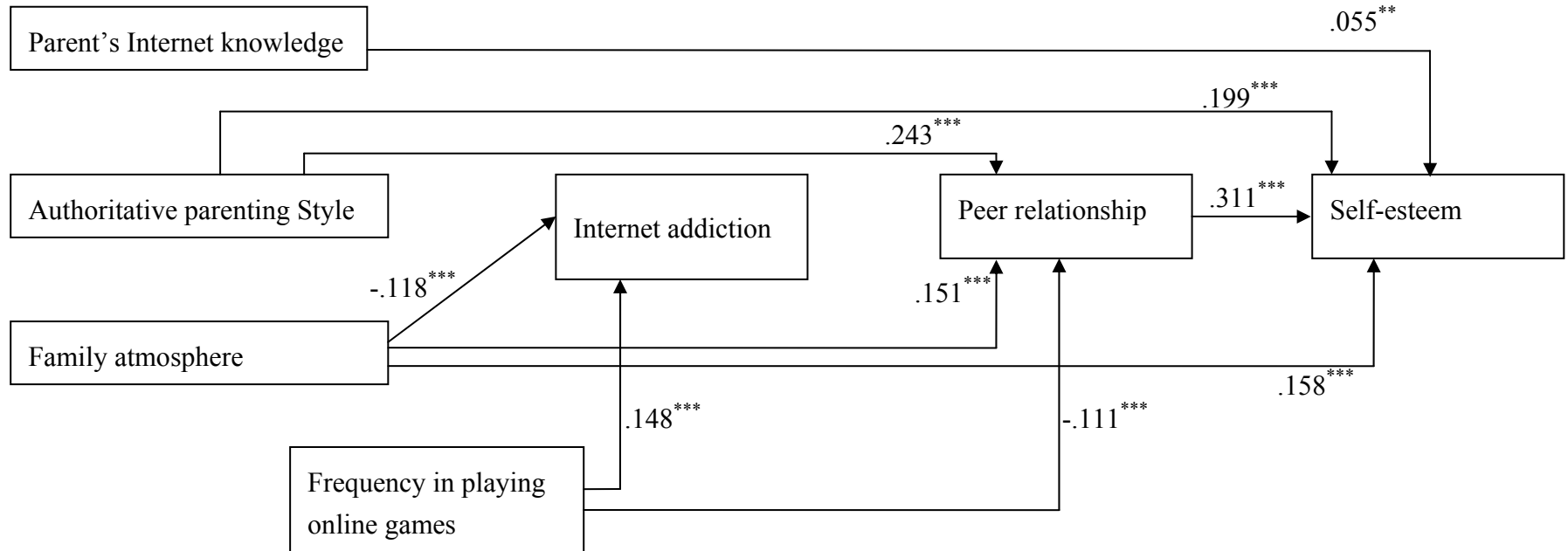


Note: Values in the figure are *beta*. $^{***}p < .001$. $^{**}p < .01$. $^{*}p < .05$.
Full model: $R^2 = .252$, $R^2_{adj} = .250$ $F(6, 2174) = 121.971$, $p < .001$.
Peer relationship model $R^2 = .130$, $R^2_{adj} = .128$ $F(5, 2213) = 66.376$, $p < .001$.
Internet addiction model: $R^2 = .038$, $R^2_{adj} = .036$ $F(4, 2239) = 22.198$, $p < .001$

*Explaining peer relationship*

After examining self-esteem as the dependent variables, we turned to peer relationship and used it as the dependent variable while self-esteem was included as one of the predicting variables alongside other major variables used in the previous model. These major predicting variables / factors included parent's Internet knowledge, children's background, parenting style, family relationship, Internet usage pattern, social engagement. Table 100 shows the Pearson's correlations between the dependent variable and the various predicting variables to be included in the model for testing. Most of the predicting variables had a high level of association with peer relationship, and were then included in the model for testing. Those variables that did not show a significant association, for example, children's demographic background, some aspects of Internet usage were excluded from the testing model.

Figure 19  Peer relationship

Table 101 Correlations between peer relationship and the predicting variables

| | Correlation with peer relationship | |
|---|---|---|
| | $r$ | $N$ |
| **Parent's Internet Knowledge** | .073*** | 2268 |
| **Children's background** | | |
| Age of child (6-17) | .081*** | 2268 |
| Sex of child | .034 | 2268 |
| **Perceived parenting style** | | |
| Authoritative | .301*** | 2230 |
| Authoritarian | .039 | 2243 |
| Permissive | -.172*** | 2248 |
| **Family relationship** | | |
| Time being together with parent | .194*** | 2263 |
| Family atmosphere | .244*** | 2263 |
| Parent-child relationship | .240*** | 2264 |
| Communication with family members | .179*** | 2265 |
| Family cohesion | .211*** | 2265 |
| **Amount of time/ Internet addiction** | | |
| Time spent on Internet during schools days | -.017 | 2252 |
| Time spent on Internet during holidays | -.060** | 2251 |
| Risks of Internet addiction | -.077*** | 2268 |
| **Pattern of computer usage** | | |
| Search information/ doing homework | -.012 | 2268 |
| Web-surfing | .000 | 2258 |
| Play online games | -.146*** | 2259 |
| Leisure purpose | -.010 | 2258 |
| Connect with friends | .060** | 2267 |
| Blogging/ Web publishing | -.068** | 2267 |
| **Self-esteem** | .406*** | 2226 |
| **Social engagement (including friends)** | .116*** | 2226 |

Note: $r$ refers to Pearson's correlation coefficient; $N$ refers to the number non-missing cases.
[1,2,3] Statistical tests showed that $r$ was not non-zero at 0.05 significant level for these two variables. All the other tests of $r$ were found to non-zeros at least at 0.05 significance level. ***$p < .001$. **$p < .01$. *$p < .05$.

After testing the model, predicting variables that had a *beta* value whose $t$ test results had a significant level of at least 0.1 was retained in the model. Table 102 shows the nine predicting variables retained in the model and their associated statistics. The model shows that authoritative parenting style, family atmosphere had unique positive contributions to the peer relationship of children. Self-esteem and social engagement had great contributions to children's peer relationship as well. Frequency in the use of the Internet to connect with friends naturally had a positive contribution to peer relationship, but frequency in playing online games as well as blogging / web publishing had a negative effect. Internet addiction had a negative impact towards peer relationship as well as permissive parenting style.

Table 102 Multiple Regression model for peer relationship

| Factors | B | SE | Beta | t |
|---|---|---|---|---|
| **Parenting style** | | | | |
| Authoritative | .103 | .016 | .134 | 6.284*** |
| Permissive | -.178 | .034 | -.105 | -5.219*** |
| **Family relationship** | | | | |
| Family atmosphere | .663 | .151 | .091 | 4.395*** |
| **Amount of time/ Internet addiction** | | | | |
| Internet addiction | -.621 | .288 | -.042 | -2.154* |
| **Pattern of computer usage** | | | | |
| Play online games | -.378 | .073 | -.101 | -5.159*** |
| Connect with friends | .367 | .078 | .098 | 4.711*** |
| Blogging/ Web publishing | -.241 | .102 | -.049 | -2.355* |
| **Social engagement/self-esteem** | | | | |
| Self-esteem | .437 | .031 | .298 | 13.988*** |
| Social engagement (centers, schools, friends) | .047 | .013 | .072 | 3.618*** |

Cumulative $R^2$ = .237, Cumulative $R^2_{adj}$ = .234  $F$ (9, 2103) = 72.602***

*** $p < .001.$ ** $p < .01.$ * $p < .05.$

Based on the regression model, we tried to construct a path model showing more clearly the relationship between the variables. Again, we included a limited number of variables to avoid complex graphic presentation.

The model includes also the salient variables in the previous models and tried to show the relationship between family factors, social engagement, frequency in playing online games, and self-esteem with peer relationship as the dependent variable. Figure 20 presents all the variables included in the original testing model. It was worth noting that Internet addiction was not included in the model because *Beta* values associated with a significant *t* value was very low in the previous regression model. Relationships without a *beta* value associated with a significant *t* value were not shown for better visual effect. Self-esteem had a strong contribution to children' peer relationship in the model, so did authoritative parenting style. Frequency of playing computer game had a direct association with peer relationship, but not with self-esteem. The social engagement sub-model was a relatively weak one ($R^2$ = .024), and it had no association with self-esteem of the children in this model. Authoritative parenting style and family atmosphere continued to play an important role in children's self-esteem in this model. Also parents' without Internet knowledge had a negative impact on children's self-esteem as well.

Figure 20 Path model for peer relationship
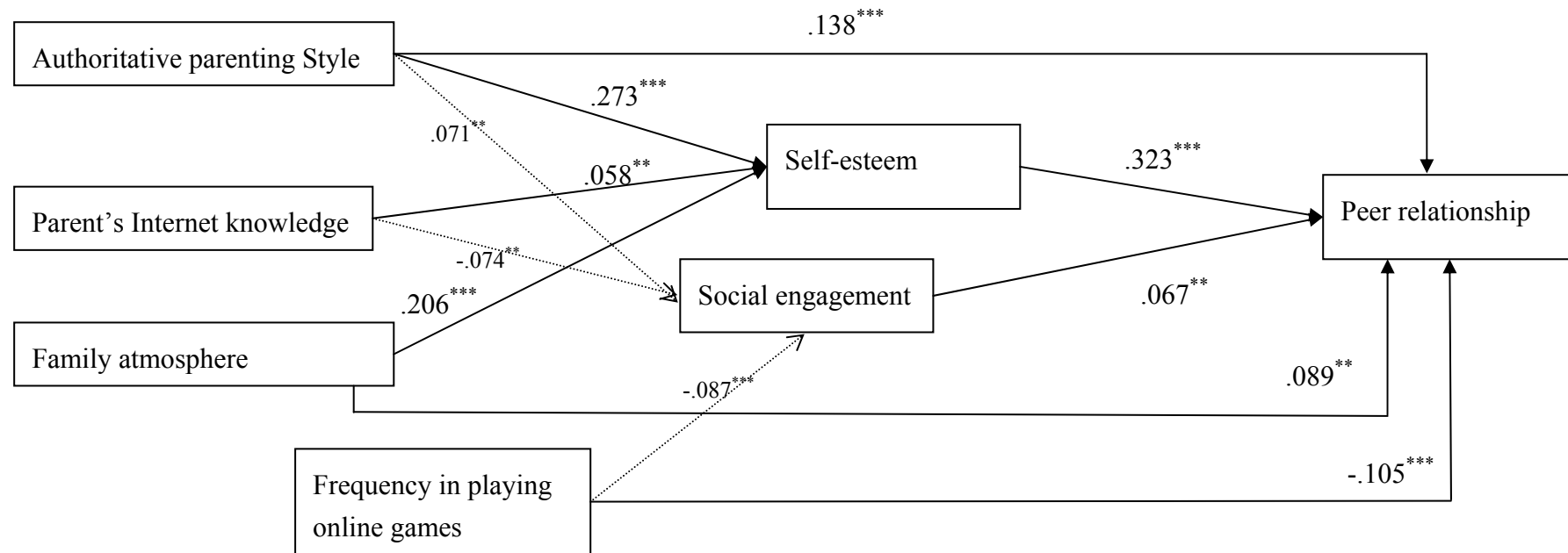


Note: Values in the figure are *beta*. $^{***}p < .001.$ $^{**}p < .01.$ $^{*}p < .05.$
Full model: $R^2 = .217$, $R^2_{adj} = .215$ $F(6, 2136) = 98.783$, $p < .001$.
Self esteem model: $R^2 = .167$, $R^2_{adj} = .165$ $F(5, 2158) = 86.260$, $p < .001$
Social engagement model: $R^2 = .024$, $R^2_{adj} = .022$ $F(4, 2200) = 13.639$, $p < .001$

# Summary and discussion

The findings of this study indicate that there is a large gap between parents and children in their use of the Internet. Almost all the children had Internet knowledge. The proportion among parents was only 56.7%. Parents of older children had an even lower percentage. While parents might treat the Internet as a tool, it is an important part of life for the children. Seventy percent of them used it on a daily basis, and a quarter of them (28.2%) actually thought they had spent too much time on the Internet. Thirty to forty percent used the Internet frequently in various types of activities (learning, web-surfing, gaming, leisure). The most frequent usage was connecting with friends (46% said they frequently did so). Very few children said they used it frequently in blogging and web publishing.

Almost all families (98.0%) we interviewed had an Internet-connected computer at home. Sixty percent of the computers were installed in the dining room, and only 15% had a computer installed inside in their bedroom for their sole use. Eighty percent said their parents could easily see children's computer screen, but only 38.5% said they would like their parents seeing what they were doing most of the time. Surprisingly, 40% of the children said they had no online friends, and another 30% said their parents knew none of their online friends. The majority of the children (60%) said they seldom or never talked about their online experience with their parents.

Very few children reported that they involved frequently in risky behaviour on the Internet such as meeting new friends, arranging F2F meeting, telling friends their family information. The most frequently involved risky behaviour were using computer alone without parents around (61.1%) and visiting websites without restriction at home (47.7%)

Only about 50-60% claimed they have heard and aware of various kinds of Internet threats. Cyber bulling was lowest on the list (41.3%) while virus attack was highest (69.2%). Also, 11.2% could be considered as having a medium level of Internet addiction. These children had frequently experienced more than half of the 20 symptoms in an Internet addiction scale.

Children reported that restriction was the most common method types for their parents in supervising and guiding them to use the Internet. Among the children, 17.8% expressed that these were frequently used by their parents. The other three method types included setting rules, involvement, and close monitoring. Less than 5% of the children indicated that their parents had frequently used these three method types.

A high proportion (71.7%) of children indicated that their parents adopted an authoritative parenting style, which entails giving clear standards and being warmth to their children. More than a third (35%) indicated their parents adopted an authoritarian style, and a smaller percentage (11.4%) adopted a permissive style. A large majority indicated a very positive family relationship as well.

A high proportion of children (85.6%) also indicated that they enjoyed very good peer relationship but they were not very active in social and civic activities. Only a

quarter said they joined school activities frequently. Also, a quarter said they frequently involved in activities with their friends. However only 7.9% said they frequently involved in social/ community centre activities. About three quarters (74.9%) said they could find teachers/ social workers to talk to when in need.

We compared the views between parents and their children regarding the above findings in this study. In general, views of parents and children concurred with each other. However, in terms of the pattern of Internet usage, more parents thought that their children used the Internet for learning, web surfing, and gaming purposes, but children actually reported a higher usage in leisure activities and in connection with friends.

We have built an explanatory model to explain Internet addiction based on family factors (family relationship and parenting styles), pattern of computer usage and peer relationship. The model shows that family factors are important in children's risks of Internet addiction. Frequencies in using the Internet, especially in playing online games and connecting with friends, directly contribute to the risks of Internet addiction. Peer relationship, on the other hand, helps reduce the chances.

We have also constructed a model to explain social engagement albeit the explanatory power was not very strong. Again, family factors come out strongly. While playing online games has a negative effect towards social engagement, other forms of Internet usage can promote it. It suggests that family factors are important. Besides, playing online games competes for children's time for social engagement.

The model explaining children's self-esteem shows that family factors as well as parent's Internet knowledge play important roles. Peer relationship has a strong contribution to children's self-esteem. Interestingly, playing online games has no effect on their self-esteem, while online leisure activities has a positive effect probably because it enables children to be knowledgeable among their peers. Surprisingly, blogging and web publishing, though not very popular among children, has a negative contribution to children's self-esteem in the model.

Family factors play similar roles in children's peer relationship, except for this time, parent's Internet knowledge appears to have no effect. Internet addiction, playing online games has negative effects, while connecting with friends online has a positive one. Social engagement and self-esteem also play a positive role in children's peer relationship in the model.

In this study, we can see that family factors (parenting styles, family relationship) play very important roles in children's social well being. While playing online computer games, and to certain extent Internet addiction, has a negative effect in their social well being, other Internet usage had a positive role. In a rapidly changing society enabled by technological innovations and globalization, children are much more likely than their parents to be exposed to new ideas, values, experiences and practices. Given the special demographic characteristics in Hong Kong, in which a substantial proportion of parents had no Internet knowledge, the gap and tensions between parents and children could be envisaged. The current study indicates that promoting parents' Internet knowledge, adopting a positive parenting style, improving family relationship have positive effect towards children's social well being, and encouraging them to have

a more balanced Internet usage and a wider interest in the social world around them should have a positive effect in reducing the risks of Internet addiction, and promoting social well beings of children.

## Appendix I   Consultancy Team

**The project team**

This study is being conducted by the Young Men's Christian Association (YMCA) of Hong Kong in partnership with the Policy 21 Limited (Policy 21). YMCA of Hong Kong will oversee the implementation of the research project. The role of Policy 21 is to implement the data collection, conduct data analysis and in consultation with YMCA of Hong Kong and academic advisors of the project compile reports for the research study. YMCA of Hong Kong, Policy 21 and academic advisors of the project will make necessary arrangements for the dissemination and publication of the research findings.

*YMCA of Hong Kong*

The YMCA of Hong Kong has been very active the in provision of education and social services to parents, children and youth in Hong Kong for many years. It endeavours to fulfill its role as a leading Christian Organization dedicated to the furtherance of justice, peace, truth, and hope in our local and international community by

a)   Providing opportunities for personal growth and understanding of civic responsibility for our young people, members and the community at large.
b)   Striving to ascertain social needs and effectively acting to offer services aimed at improving the quality of life for all persons regardless of age, gender, race, culture or religion.
c)   Fostering international understanding and intercultural harmony.

*Policy 21*

Since its establishment in July 2000, Policy 21 has undertaken more than 280 research projects for academic units of local and overseas universities, schools, NGOs, government and quasi-governmental organizations and private corporations. Many of these projects are carried out in collaboration with academic staff of local universities.

The composition of consulting team is shown below:

| Name | Position | Role |
| --- | --- | --- |
| Dr. Alice Tak Fun YUK | General Manager, YMCA of Hong Kong | Project Advisor* |
| Dr. Yu Cheung WONG | Assistant Professor, Department of Social Work and Social Administration, The University of Hong Kong | Academic Advisor |
| Mr. Hak Kwong YIP | Director, Policy 21 Research Institute | Survey director |
| Miss Isabel CHAN | Admin. Officer, YMCA of Hong Kong | Project Coordinator |

\* Grant holder of the research

*Advisors of the study team*

**Dr. Alice Tak Fun YUK**, a veteran social worker and educator in Hong Kong. She has been very active in the planning and provision of social and education services, through the various education and social services units of YMCA of Hong Kong, for parents, children and youth.

**Dr. Yu Cheung WONG** teaches information and communication technology in human services for several years. He was the principal investigator of the "Impact analysis study on the degree of digital inclusiveness in Hong Kong" in 2005/06 and "Identification of barriers on ICT adoption of disadvantaged groups in Hong Kong" in 2007. Both studies were commissioned by OGCIO. He has conducted consultancy studies about social assistance, district council, functions of district welfare office commissioned by various Government departments. Details of relevant experience could be referred to the curriculum vitae attached.

*Survey Director*

The day-to-day operation of the study will be conducted by a data collection and data analysis team of Policy 21 led by **Mr. Hak Kwong YIP**. Mr. YIP has over 30 years of experience in planning and managing various types of face-to-face interview surveys. He was the Assistant Commissioner for Census & Statistics before he left Hong Kong Government. He will be responsible for the management of the research, ensuring that the study is carried out professionally and completed on time.

*Project Coordinator*

**Miss Isabel Chan** will be responsible for project coordination and liaison between all parties involved in the project. Miss Chan graduated with the first-class honour in Geography from the Hong Kong Baptist University and MSc in planning practice and research from Cardiff University.

**The data collection and data processing team**

All interviewers, under the supervision of Mr. YIP from Policy 21, have ample experience in a number of household surveys, on district or territory-wide basis, involving face-to-face interviews and telephone interviews. For conducting the interviews, a team of at least 30 interviewers will be deployed from the panel of over 200 full-time/part-time interviewers being maintained by Policy 21. This panel has been created from the pool of interviewers recruited and trained by Policy 21 for surveys conducted by Policy 21. To ensure an adequate supply of interviewers and to replace dropouts, recruitment of new panel enumerators is carried out periodically. All interviewers in the panel are given basic training in interviewing techniques and the codes of ethics for conducting surveys, in addition to subject-matter training in data collection related to the survey in question.

Data processing and data analysis will be carried out by a team of researchers with ample training and experience in data collection, data processing and data analysis. They are all full-time staff of Policy 21 and have been actively involved in many research projects undertaken by Policy 21 over the past 5 years. The composition of data collection and data analysis team is shown below:

| *Data Analysis* | *Data Collection* |
|---|---|
| Ms Ruby Tsz Fung LO,<br>Project Manager<br>Mr. Richie Tsz Kin CHU<br>Project Manager<br><br>4 Research Assistants | Mr. Lau Kwok Leung, Senior Field Manager<br>Miss Meko Lee, Field Manager<br><br>A team of 20 interviewers drawn from the panel of enumerators of Policy 21<br>An independent team of quality controllers |

*Project Managers*

**Ms. Ruby Tsz Fung LO** will be responsible for working as a statistician in data collection and analysis. She will also participate in the daily operation and liaison of the survey. Ms. Lo, with a bachelor and master degree in statistics, has a very strong background in statistics and has experience conducting applied research.

**Ms. Tsz Kin CHU** will be responsible for working as a statistician in data collection and analysis. He will also participate in the daily operation and liaison of the survey. Mr. Chu, with a bachelor degree in social sciences and a master degree in applied statistics, has received training in applied research.

*Senior Field Manager*

**Mr. Kwok Leung LAU** will be responsible for the training of interviewers, and for designing and implementing quality control measures. Mr. Lau is a very experienced interviewer, supervisor and trainer. He has worked as a census and survey officer in the Census and Statistics Department for some 27 years, actively involving in planning and conducting statistical surveys.

*Field Manager*

**Ms. Meko LEE** will be responsible for the day-to-day management of the interviewers. Ms Lee has several years of experience in data collection. She has participated in a number of surveys conducted by Policy 21, first as interviewer and later as supervisor.

[be NetWise]

## Appendix II    Household Survey on the Use of Internet (Children Questionnaire)

**Enumerator No.:_____**            **Sample No.:_____**

**Section I: Personal Information**

**1.  Sex of interviewee**
    1. ☐ Male                2. ☐ Female

**2.  Age：**

**3.  Year (For Primary: P1 – P6 & Secondary: F1-F7) :**

**Section II: Pattern of Internet Usage**

**1.  In the past three months, how many times did you use internet?**
1. ☐ Every day                4. ☐ Once to few times in the past three months
2. ☐ Once to few times a week      5. ☐ Not sure, about: _____
3. ☐ Once to few times a month

**2.  In the past three months, how much time would you use the Internet at home each day?**
    a. During school days __ hours __ minutes
    b. During holidays __ hours __ minutes

**3.  In the past three months, what do you think about the amount of time you spent using the Internet?**
    1. ☐Too little  2. ☐Little  3. ☐About right  4. ☐Much  5. ☐Too much

**4.  How often do you use the Internet for the following?**

|  | Never/Very rarely | Seldom | Sometimes | Frequently | Always |
|---|---|---|---|---|---|
|  | 1 | 2 | 3 | 4 | 5 |
| a. Search information for learning/ doing homework | ☐ | ☐ | ☐ | ☐ | ☐ |
| b. Web-surfing for interested topics | ☐ | ☐ | ☐ | ☐ | ☐ |
| c. Play online games | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. Use the computer/Internet for leisure (music, radio, video, TV program) | ☐ | ☐ | ☐ | ☐ | ☐ |
| e. Connect with friend (e.g. MSN, email, chatrooms, Facebook) | ☐ | ☐ | ☐ | ☐ | ☐ |
| f. Blogging/ Website publishing | ☐ | ☐ | ☐ | ☐ | ☐ |
| g. Others, please specify: _____ | ☐ | ☐ | ☐ | ☐ | ☐ |

**5  How would you describe your understanding on the use of Internet?**
1. ☐No understanding at all       4. ☐Advanced level
2. ☐Beginner                      5. ☐Don't know / Difficult to say
3. ☐Medium-level


**Section III：Access and ways to use the computer and Internet**

**1.**　**Do you have a computer/notebook for your own use at home?**
1 ☐ Yes   2 ☐ No (Go to Q4)

**2.**　**Is your computer connected to the Internet?**
1 ☐ Yes (**2a. Is the connection broadband?** 1 ☐ Yes  2☐ No  3☐ Don't know)  2 ☐ No

**3.**　**Where do you usually use the computer at home?**
1 ☐Bedroom (no sharing) 2 ☐Bedroom (share with others) 3. ☐Dining room / Living room
4 ☐Other places, please specify：_____

**4.**　**Would your parents be able to see the computer screen while you are using the computer?**
1 ☐ Yes, easily   2 ☐ Yes, have to make some efforts  3 ☐ No

**5.**　**Would you let your parents to see what you are doing on the computer?**
1. ☐Definitely no, never   3. ☐Yes, sometimes       5. ☐Definitely yes, almost always
2. ☐Yes, occasionally          4. ☐Yes, most of the time

**6.**　**Do your parents know your online friends?**
1. ☐None of them        3. ☐Some of them      5. ☐Almost all of them
2. ☐Very few            4. ☐Most of them      8. ☐No online friends

**7.**　**Do you talk about what you have done on the Internet with your parents?**
1. ☐Never/Very rarely    3. ☐Sometimes      5. ☐Almost always
2. ☐Few/ Infrequently        4. ☐Frequently

| 8. Other than your home, where do you go online? | Never/Very rarely | Few / Infrequently | Sometimes | Frequently | Almost Always |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| a. School | ☐ | ☐ | ☐ | ☐ | ☐ |
| b. Community centres | ☐ | ☐ | ☐ | ☐ | ☐ |
| c. Public library | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. Friend's home | ☐ | ☐ | ☐ | ☐ | ☐ |
| e.Internet café | ☐ | ☐ | ☐ | ☐ | ☐ |
| f. MTR station and other public places | | | | | |
| g. Other places, please specify: _____ | ☐ | ☐ | ☐ | ☐ | ☐ |

**Section IV: Internet Risks Checklist**

**1.    Please select the answer that best describes you**

| | Never/Very rarely | Few / Infrequently | Sometimes | Frequently | Almost Always |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| a. You met new friends on the internet | ☐ | ☐ | ☐ | ☐ | ☐ |
| b. You arranged face-to-face gatherings with friends met on the internet? | ☐ | ☐ | ☐ | ☐ | ☐ |
| c. You told the friends you first met on the internet about information of your family, such as address, parents' names, etc.? | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. You downloaded/ installed software onto your computer? | ☐ | ☐ | ☐ | ☐ | ☐ |
| e. You downloaded materials (such as songs and photos) onto your computer? | ☐ | ☐ | ☐ | ☐ | ☐ |
| f. You are allowed to visit websites without restriction when you are using the Internet at home | ☐ | ☐ | ☐ | ☐ | ☐ |
| g. You used the computer alone without your parents around | ☐ | ☐ | ☐ | ☐ | ☐ |

**2.    Are you aware of the following possible threats of using the Internet?**

| | Never heard of | Have heard of but not sure its threat | Have heard and understood its threat |
|---|---|---|---|
| | 1 | 2 | 3 |
| a. Exposure to undesirable materials (indecent, pornographic, gambling, drugs, violence, etc.) | ☐ | ☐ | ☐ |
| b. Cyber-bullying | ☐ | ☐ | ☐ |
| c. Identity theft | ☐ | ☐ | ☐ |
| d. Infection by computer viruses and other malicious software | ☐ | ☐ | ☐ |
| e. Internet addiction, including addiction to Internet games, social networking websites | ☐ | ☐ | ☐ |
| f. Solicitation for sexual and other harmful activities | ☐ | ☐ | ☐ |
| g. Illegal downloading copyrighted materials | ☐ | ☐ | ☐ |
| h. Schoolwork suffering through spending too much time playing games and chatting with friends on the Internet | ☐ | ☐ | ☐ |

**3. How often do you have the following situations?**

| | Never 1 | Sometimes 2 | Frequent 3 | Very frequent 4 | All the time 5 |
|---|---|---|---|---|---|
| 1. Do you find that the duration of your Internet usage has exceeded the designated limit? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Do you put aside what you are supposed to do and spend the time on Internet? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Do you have more enthusiasm or anticipation on Internet than interacting or gathering with other people? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Do you make friends on Internet? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Do you get blamed or criticized for using Internet? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. Do you get late to school or leave early because of using Internet? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. Do you lose control in checking emails? | ☐ | ☐ | ☐ | ☐ | ☐ |

| | | | | | |
|---|---|---|---|---|---|
| 8. Does your academic performance relapse because of using Internet? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. When someone asks you about what you would do on Internet, do you have some reservations in disclosing or conceal the real fact? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. Do you seek emotional and social supports from Internet? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11. Do you act ahead of time to go online or take every chance to use Internet whenever you have access to it? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 12. Do you think if there is no Internet, life would become dull? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 13. When someone disturbs you when you are using Internet, do you get angry? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 14. Do you spend the sleeping hours in using Internet? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 15. While you go off-line, do you still think about the on-line activities? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 16. Do you extend the duration while you are using Internet? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 17. Have you ever tried to reduce the time in using Internet but failed? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 18. Do you cover up the hours you have spent on using Internet? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 19. Do you spend the time on Internet rather than going out? | ☐ | ☐ | ☐ | ☐ | ☐ |
| 20. Would you feel depressed, splenetic or discomforted if you do not have Internet access? | ☐ | ☐ | ☐ | ☐ | ☐ |

## Section V: Parent's supervision and guidance in using the Internet

1. **Which parent is usually responsible for supervising & guiding you on the use of the Internet? (For the following question, your parent is the one you chose here)**

   1. ☐ Mother     2. ☐ Father

**2. Has your parent ever used the following means to supervise and guide you in using the Internet?**

| | Frequency | | | | | Effectiveness: Do you think these measures are effective? | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Never/ Very rarely | Few / In-frequently | Som e-times | Fre-quently | Almost Always | Not at all | Very little | Some | Effectiv e | Very Effective | Do not kno w |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 0 |
| a. Regularly discuss your online experience with you | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| b. Discuss about the threats of Internet usage with you | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| c. Encourage you to find good uses of the computer and Internet | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. Join you in your online activities (e.g. Watch movie, play games, explore common interests, MSN, etc.) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| e. Share computer knowledge/ skills together | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| f. Become your Facebook friend | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| g. Remind you when they have used it for too long or too late | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

| | **Frequency** | | | | | **Effectiveness:** Do you think these measures are effective? | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Never/ Very rarely | Few / In-frequently | Som-e-times | Fre-quently | Almost Always | Not at all | Very little | Some | Effectiv e | Very Effective | Do not kno w |
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 0 |
| h. Restrict your use if the school performance get worse | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| i. Restrict the amount of time you use the Internet | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| j. Set rules about interacting with stranger | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| k. Install software to filter access to undesirable websites or to monitor your online activity | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| l. Set rules about which websites can be visited | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| m. Set rules about downloading and uploading material | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| n. Set rules about disclosure of personal information | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| o. Monitoring your web activities and online communication (e.g. check browsing history, MSN friends, Facebook) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| p. Unplug the power supply/ Lan connection when necessary | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| q. Sent you to lessons organised by a youth group or similar organisation about how to use the Internet sensibly | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

## Section VI:  Parenting Style & Family relationship

**1  Please select the answer that best describes your parent who is responsible for your daily supervision (replace my mother with my father in case father is the one responsible).**

| | | Strong disagr ee | Disagr ee | Hard to say | Agree | Strong ly Agree |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| a. | While I was growing up my mother felt that in a well-run home the children should have their way in the family as often as the parents do. | ☐ | ☐ | ☐ | ☐ | ☐ |
| b. | Even if her children didn't agree with her, my mother felt that it was for our own good if we were forced to conform to what she thought was right. | ☐ | ☐ | ☐ | ☐ | ☐ |
| c. | Whenever my mother told me to do something as I was growing up, she expected me to do it immediately without asking any questions. | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. | As I was growing up, once family policy had been established, my mother discussed the reasoning behind the policy with the children in the family. | ☐ | ☐ | ☐ | ☐ | ☐ |
| e. | My mother has always encouraged verbal give-and-take | ☐ | ☐ | ☐ | ☐ | ☐ |

| | | Strong disagree | Disagree | Hard to say | Agree | Strongly Agree |
|---|---|:---:|:---:|:---:|:---:|:---:|
| | | 1 | 2 | 3 | 4 | 5 |
| | whenever I have felt that family rules and restrictions were unreasonable. | | | | | |
| f. | My mother has always felt that what her children need is to be free to make up their own minds and to do what they want to do, even if this does not agree with what their parents might want. | ☐ | ☐ | ☐ | ☐ | ☐ |
| g. | As I was growing up my mother did not allow me to question any decision she had made. | ☐ | ☐ | ☐ | ☐ | ☐ |
| h. | As I was growing up my mother directed the activities and decisions of the children in the family through reasoning and discipline. | ☐ | ☐ | ☐ | ☐ | ☐ |
| i. | My mother has always felt that more force should be used by parents in order to get their children to behave the way they are supposed to. | ☐ | ☐ | ☐ | ☐ | ☐ |
| j. | As I was growing up my mother did *not* feel that I needed to obey rules and regulations of behavior simply because someone in authority had established them. | ☐ | ☐ | ☐ | ☐ | ☐ |
| k. | As I was growing up I knew what my mother expected of me in my family, but I also felt free to discuss those expectations with my mother when I felt that they were unreasonable. | ☐ | ☐ | ☐ | ☐ | ☐ |
| l. | My mother felt that wise parents should teach their children early just who is boss in the family. | ☐ | ☐ | ☐ | ☐ | ☐ |
| m. | As I was growing up, my mother seldom gave me expectations and guidelines for my behavior. | ☐ | ☐ | ☐ | ☐ | ☐ |
| n. | Most of the time as I was growing up my mother did what the children in the family wanted when making family decisions. | ☐ | ☐ | ☐ | ☐ | ☐ |
| o. | As the children in my family were growing up, my mother consistently gave us direction and guidance in rational and objective ways. | ☐ | ☐ | ☐ | ☐ | ☐ |
| p. | As I was growing up my mother would get very upset if I tried to disagree with her. | ☐ | ☐ | ☐ | ☐ | ☐ |
| q. | My mother feels that most problems in society would be solved if parents would *not* restrict their children's activities, decisions, and desires as they are growing up. | ☐ | ☐ | ☐ | ☐ | ☐ |
| r. | As I was growing up my mother let me know what behavior she expected of me, and if I didn't meet those expectations, she punished me. | ☐ | ☐ | ☐ | ☐ | ☐ |
| s. | As I was growing up my mother allowed me to decide most things for myself without a lot of direction from her. | ☐ | ☐ | ☐ | ☐ | ☐ |
| t. | As I was growing up my mother took the children's opinions into consideration when making family decisions, but she would not decide for something simply because the children wanted it. | ☐ | ☐ | ☐ | ☐ | ☐ |
| u. | My mother did not view herself as responsible for directing and guiding my behavior as I was growing up. | ☐ | ☐ | ☐ | ☐ | ☐ |
| v. | My mother had clear standards of behavior for the children in our home as I was growing up, but she was willing to adjust those standards to the needs of each of the individual children in the family. | ☐ | ☐ | ☐ | ☐ | ☐ |
| w. | My mother gave me direction for my behavior and activities as I was growing up and she expected me to follow her direction, but she was always willing to listen | ☐ | ☐ | ☐ | ☐ | ☐ |

|     |     | Strong disagree | Disagree | Hard to say | Agree | Strongly Agree |
|-----|-----|-----------------|----------|-------------|-------|----------------|
|     |     | 1 | 2 | 3 | 4 | 5 |
|     | to my concerns and to discuss that direction with me. | | | | | |
| x. | As I was growing up my mother allowed me to form my own point of view on family matters and she generally allowed me to decide for myself what I was going to do. | ☐ | ☐ | ☐ | ☐ | ☐ |
| y. | My mother has always felt that most problems in society would be solved if we could get parents to strictly and forcibly deal with their children when they don't do what they are supposed to as they are growing up. | ☐ | ☐ | ☐ | ☐ | ☐ |
| z. | As I was growing up my mother often told me exactly what she wanted me to do and how she expected me to do it. | ☐ | ☐ | ☐ | ☐ | ☐ |
| aa. | As I was growing up my mother gave me clear direction for my behaviors and activities, but she was also understanding when I disagreed with her. | ☐ | ☐ | ☐ | ☐ | ☐ |
| bb | As I was growing up my mother did not direct the behaviors, activities, and desires of the children in the family. | ☐ | ☐ | ☐ | ☐ | ☐ |
| cc. | As I was growing up I knew what my mother expected of me in the family and she insisted that I conform to those expectations simply out of respect for her authority. | ☐ | ☐ | ☐ | ☐ | ☐ |
| dd. | As I was growing up, if my mother made a decision in the family that hurt me, she was willing to discuss that decision with me and to admit it if she had made a mistake. | ☐ | ☐ | ☐ | ☐ | ☐ |

2. How satisfied are you with the following aspects of your family life.

|     |     | Very unsatisfied | Unsatisfied | Hard to say | Satisfied | Very satisfied |
|-----|-----|------------------|-------------|-------------|-----------|----------------|
|     |     | 1 | 2 | 3 | 4 | 5 |
| a. | Time being together with my parent | ☐ | ☐ | ☐ | ☐ | ☐ |
| b. | Family atmosphere | ☐ | ☐ | ☐ | ☐ | ☐ |
| c. | Parent-child relationship | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. | Communication with family members | ☐ | ☐ | ☐ | ☐ | ☐ |
| e. | Family cohesion | ☐ | ☐ | ☐ | ☐ | ☐ |

**Section VII: Inter-peer Relationship, Social participation & Self-esteem**

**1. Please select the answer that best describes you.**

|     |     | Never / Very rarely | Few / Infrequently | Sometimes | Frequently | Almost always |
|-----|-----|---------------------|--------------------|-----------|------------|---------------|
|     |     | 1 | 2 | 3 | 4 | 5 |
| a. | I get on well with my friends | ☐ | ☐ | ☐ | ☐ | ☐ |
| b. | My friends don't seem to care about me | ☐ | ☐ | ☐ | ☐ | ☐ |
| c. | My friends treat me badly | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. | My friends really respect me | ☐ | ☐ | ☐ | ☐ | ☐ |
| e. | I have a feeling of being abandoned by my friends | ☐ | ☐ | ☐ | ☐ | ☐ |

| | | Never / Very rarely | Few / Infrequently | Sometimes | Frequently | Almost always |
|---|---|:---:|:---:|:---:|:---:|:---:|
| | | 1 | 2 | 3 | 4 | 5 |
| f. | I wish I could have another group of friends | ☐ | ☐ | ☐ | ☐ | ☐ |
| g. | My friends are my sources of joy | ☐ | ☐ | ☐ | ☐ | ☐ |
| h. | I think I am important among my friends | ☐ | ☐ | ☐ | ☐ | ☐ |
| i. | My friends are not interested in me | ☐ | ☐ | ☐ | ☐ | ☐ |
| j. | My friends take my thoughts and opinions seriously | ☐ | ☐ | ☐ | ☐ | ☐ |

## 2.    Civic/Social participation

| | | Never / Very rarely | Few / Infrequently | Sometimes | Frequently | Almost always |
|---|---|:---:|:---:|:---:|:---:|:---:|
| | | 1 | 2 | 3 | 4 | 5 |
| a. | In the previous year, how often did you participate in activities organized by community /social centres (e.g. youth services, voluntary work, social recreational activities)? | ☐ | ☐ | ☐ | ☐ | ☐ |
| b. | If you have participated in these activities, how often did you help organize, initiate these activities? | ☐ | ☐ | ☐ | ☐ | ☐ |
| c. | In the previous year, how often did you join functions organized by your school (such as parents' day, sports days?) | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. | If you have jointed these functions, how often did you help organize, initiate them? | ☐ | ☐ | ☐ | ☐ | ☐ |
| e. | In the previous year, how often did you join activities among your friends (such as outdoor activities, cultural and social affairs)? | ☐ | ☐ | ☐ | ☐ | ☐ |
| f. | If you have jointed these activities, how often did you help organize, initiate them? | ☐ | ☐ | ☐ | ☐ | ☐ |

## 3.    Please select the answer that best describes you

| | | Strongly disagree | Disagree | Agree | Strongly agree |
|---|---|:---:|:---:|:---:|:---:|
| | | 1 | 2 | 3 | 4 |
| a. | On the whole I am satisfied with myself. | ☐ | ☐ | ☐ | ☐ |
| b. | At times I think that I am no good at all. | ☐ | ☐ | ☐ | ☐ |
| c. | I feel that I have a number of good qualities. | ☐ | ☐ | ☐ | ☐ |
| d. | I am able to do things as well as most other people. | ☐ | ☐ | ☐ | ☐ |
| e. | I feel I do not have much to be proud of. | ☐ | ☐ | ☐ | ☐ |
| f. | I certainly feel useless at times. | ☐ | ☐ | ☐ | ☐ |
| g. | I feel that I am a person of worth, at least the equal of others. | ☐ | ☐ | ☐ | ☐ |
| h. | I wish I could have more respect for myself. | ☐ | ☐ | ☐ | ☐ |
| i. | All in all, I am inclined to feel that I am a failure. | ☐ | ☐ | ☐ | ☐ |
| j. | I take a positive attitude toward myself. | ☐ | ☐ | ☐ | ☐ |

## 4.    How many close schoolmates do you have at school?

1. ☐ None       3. ☐ 4-6       5. ☐ 10 or more
2. ☐ 1-3       4. ☐ 7-9

**5. How many close friends/neighbors do you have outside school?**
1. ☐ None       3. ☐ 4-6       5. ☐ 10 or more
2. ☐ 1-3       4. ☐ 7-9

**6. Are there any teachers/social workers/ other professionals whom you can feel free to talk to when you are in need?**
1. ☐ Yes            2. ☐ No

**7. If you have problems with your homework, can you find someone to teach/help you?**

| | | Never / Very rarely | Few / Infrequently | Sometimes | Frequently | Almost always |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| a. | Classmates | ☐ | ☐ | ☐ | ☐ | ☐ |
| b. | Older schoolmates | ☐ | ☐ | ☐ | ☐ | ☐ |
| c. | Friends outside school | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. | Teachers | ☐ | ☐ | ☐ | ☐ | ☐ |
| e. | Parents | ☐ | ☐ | ☐ | ☐ | ☐ |
| f. | Others, please specify: | ☐ | ☐ | ☐ | ☐ | ☐ |

**8. If you have personal problems, can you find someone to help/talk to?**

| | | Never / Very rarely | Few / Infrequently | Sometimes | Frequently | Almost always |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| a. | Classmates | ☐ | ☐ | ☐ | ☐ | ☐ |
| b. | Older schoolmates | ☐ | ☐ | ☐ | ☐ | ☐ |
| c. | Friends outside school | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. | Teachers | ☐ | ☐ | ☐ | ☐ | ☐ |
| e. | Parents | ☐ | ☐ | ☐ | ☐ | ☐ |
| f. | Others, please specify: | ☐ | ☐ | ☐ | ☐ | ☐ |

~ End, thank you very much~