

Levels of screen use at the end of adolescence in France in 2017

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Today, adolescents are growing up in a digital world: many school and leisure activities for both individuals and groups involve using information and communication technologies (ICT). Almost all households with children now have at least a television, computer and an Internet connection (INSEE, 2016) and from a certain age (around 10), each household member also has their own mobile phone. The development of digital nomadism also makes it possible to be "connected", to play and continually have access to endless content, wherever you are. In 2018, 88% of high school students reported to use the Internet every day (EnCLASS survey), compared to 23% in 2003 (ESPAD survey). While these tools undeniably promote socialising (Gommans *et al.*, 2015), learning and leisure, their intensive use at an early age can nevertheless have negative consequences (less sleep (Léger *et al.*, 2012), exposure to "violent" images, learning difficulties, etc.). They are therefore likely to lead to problematic behaviour or even new forms of addiction, particularly to video games¹ or social networks.

Defining and identifying possible "abusive" or problematic behaviour is now a major public health issue. While one study recommends limiting adolescents' screen time to 2 hours per day (American Academy of Pediatrics, 2013), the majority of 15-year-olds would significantly surpass

this limit (Ngantcha *et al.*, 2018). Two characteristics of problematic use therefore emerge: the time spent in front of the screen and the type of activity carried out. Furthermore, by increasingly allowing adolescents to use screens more autonomously and to have more nomadic use, these devices mean it is more difficult for parents to control the amount of time adolescents are using them, potentially leading to adolescents

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1. In 2013, the Internet Gaming Disorder was included in the fifth edition of the Diagnostic and Statistical Manual (DSM-5), the American Psychiatric Association's reference manual. This allowed a first consensus on the criteria defining it in order to encourage and standardise research on this subject.

using the devices excessively or to the point of at-risk use, periods of time which need to be better qualified and quantified. In particular, the fact adolescents have screens in their bedrooms significantly increases the amount of time they spend using them (Tandon *et al.*, 2012).

In 2017, in order to contribute to reflection on so-called "substance-free" addictions among adolescents, the French Monitoring Centre for Drugs and Drug Addiction (OFDT) integrated a new module on the use of various electronic devices with screens into the Survey on Health and Use on National Defence and Citizenship Day (ESCAPAD) (OFDT, 2019). This involved continuing studies initiated with the ESCAPAD survey in 2011 (Le Nézet and Spilka, 2014), the Health Behaviour in School-aged Children (HBSC) surveys (Ngantcha *et al.*, 2016) and the European School Survey Project on Alcohol and other Drugs (ESPAD) in 2014 and 2015. The 2011 edition of ESCAPAD showed, for example, that nine out of ten 17-year-olds had used the Internet in the past seven days, spending an average of more than four hours a week on the Internet. However, this did not include all devices, like television or game consoles, which do not require an Internet connection. The 2017 survey re-addressed the issue by focusing on screen use rather than Internet use.

This memo reports the main results on the issue of the amount of time 17-year-olds spend on screens, distinguishing between the different types of screens: televisions, game consoles, computers, tablets and mobile phones. Furthermore, in an exploratory and transversal approach to the various different kinds of screens, the memo focuses on the relationship between adolescents and social networks in terms of excessive use, as well as their ability to disconnect from their mobile phones.

ELECTRONIC DEVICES WITH A SCREEN

COMPUTERS

Almost all 17-year-olds have a computer in their main residence (97.6%, Figure 1). Seven out of ten young people even have a second computer (71.9%). Seven in ten young people report to have a computer in their room (71.3%), with this being the case slightly more often for girls (72.2%) than for boys (69.5%).

TELEVISIONS

Almost all 17-year-olds have a television in their main residence (97.4%), with 69.4% of them having a second television. Almost half of them have one in their room (47.4%). The figure is different for boys and girls (56.6% vs 38.8% respectively).

GAME CONSOLES

Game consoles, whether portable or used together with a television screen, are also often found in adolescents' homes: 85.1% of them have at least one and 47.3% have at least two. Four in ten young people report to have a game console in their room, with twice the number of boys having one compared to girls (57.0% vs 24.9%).

Except for so-called "portable" consoles, most consoles need to be connected to a television to work. There is therefore a strong link between the number of people owning each of these devices. 81.0% of young people with a game console in their room also have a television in their room, compared to 24.0% of those without a game console in their room.

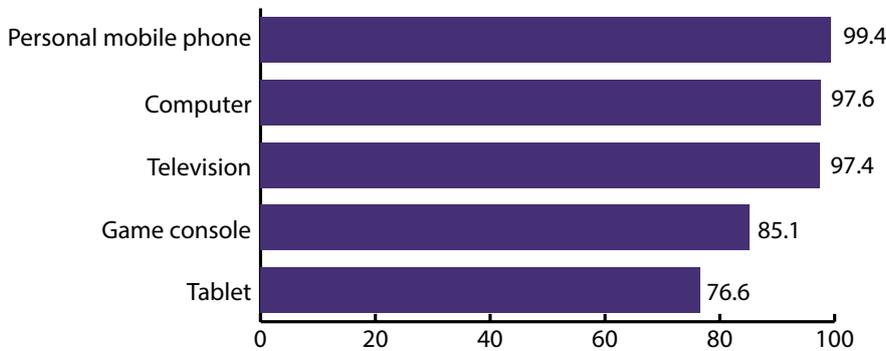
TABLETS

More than three in four young people have a tablet in their main residence (76.6%) and more than one-third have at least two (36.0%). Just over one-third of 17-year-olds report to have a tablet in their room (37.0%), with no difference in the figure for boys and girls. Since the tablet is a portable device, however, "having" it in your room may not mean the same as it does for fixed equipment. It is not taken into consideration whether it is the young person's personal device or a shared device.

MOBILE PHONES

In 2017, almost all 17-year-olds owned a mobile phone (99.4%). Most of them were multifunctional phones called smartphones (97.8%).

Figure 1. Percentage of interactive screen devices in 17-year-olds' main residence in 2017 (%)

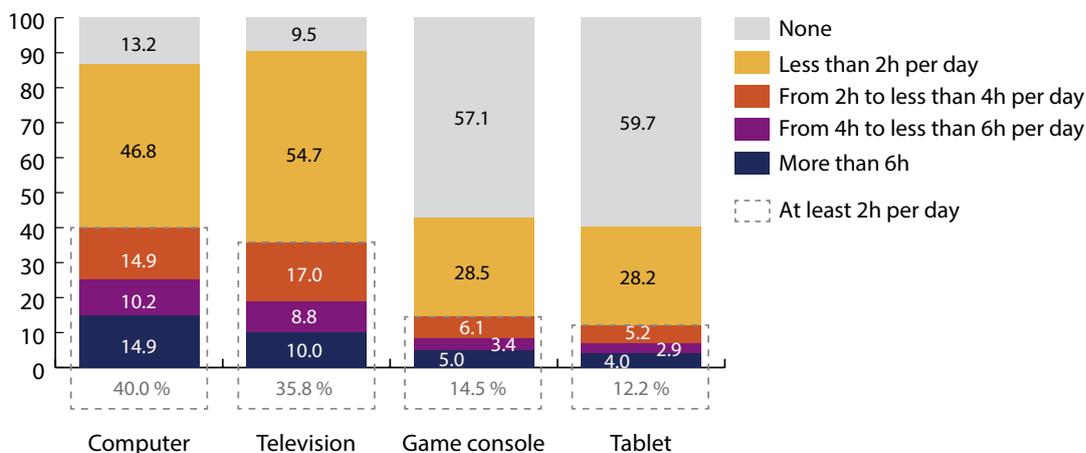


Source: 2017 ESCAPAD survey

FREQUENCY OF USE OF ELECTRONIC DEVICES

Young people were asked to estimate the amount of time they spent each day using each of the aforementioned devices over the last seven days. They could choose from one of seven responses: "none", "less than 30 minutes", "between 30 minutes and 1h", "between 1h and 2h", "between 2h and 3h", "between 4h and 5h", "more than 6h". Overall, computers and televisions were the most popular screens for adolescents. 40.0% of 17-year-olds reported spending at least 2 hours a day on the computer; while 35.8% said they spent at least 2 hours a day watching the television. In comparison, and despite large proportions of them owning devices, game consoles and tablets were much less popular with adolescents (Figure 2).

Figure 2. Amount of time spent on different screens per day over the week preceding the survey in 2017 (%)



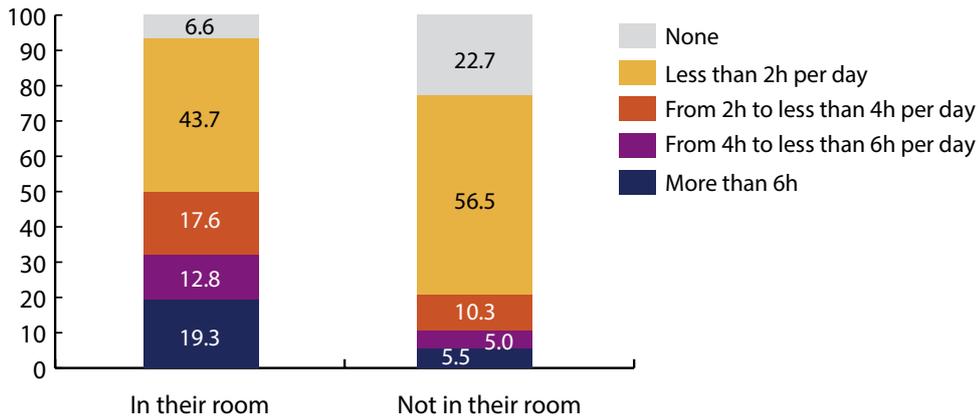
Source: 2017 ESCAPAD survey

Note: The terms "<30 minutes", "between 30 minutes and 1h" and "between 1h and 2h" have been grouped together so it is easier to read.

COMPUTERS

Most 17-year-olds used a computer the week before the survey (86.8%), with the figure for girls being a little higher than that for boys (88.2% vs 85.4%). Four in ten young people said they spent more than two hours a day in front of this kind of screen (40.0%, Figure 2) and 14.9% said they spent more than six hours a day. Young people spending this much time on the computer, which affected slightly more boys than girls (41.3% vs 38.7%), is strongly linked to whether young people have a computer in their room: half of those who did spend more than two hours a day in front of the computer (49.7%) compared to 20.8% of those who have a computer in their house but not in their room (Figure 3).

Figure 3. Amount of time 17-year-olds spend on the computer, as a daily average from the week preceding the survey, based on whether or not they have the device in their room (%)

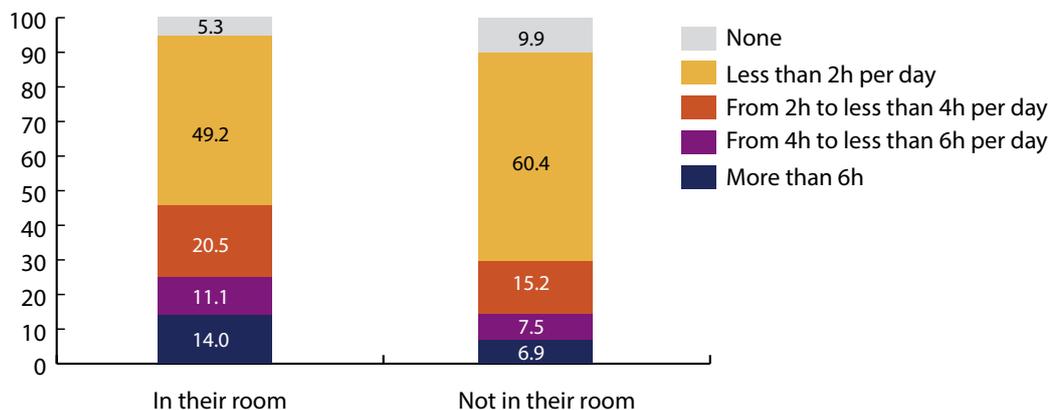


Source: 2017 ESCAPAD survey

TELEVISIONS

Nine in ten 17-year-olds reported to have watched television in the week before the survey (90.5%). More than one in three young people (35.8%) watched it for more than two hours a day and one in ten watched it for more than six hours a day (10.0%, Figure 2). The proportion of young people who watched television for at least two hours a day was 45.5% among those with a television in their own room, compared to 29.7% for those who had a television in their house but in another room (Figure 4). Moreover, although fewer girls than boys had a television in their room, they were more likely to use it for at least two hours a day (37.4% vs 34.2%).

Figure 4. Amount of time 17-year-olds spend watching the television, as a daily average from the week preceding the survey, based on whether or not they have the device in their room (%)

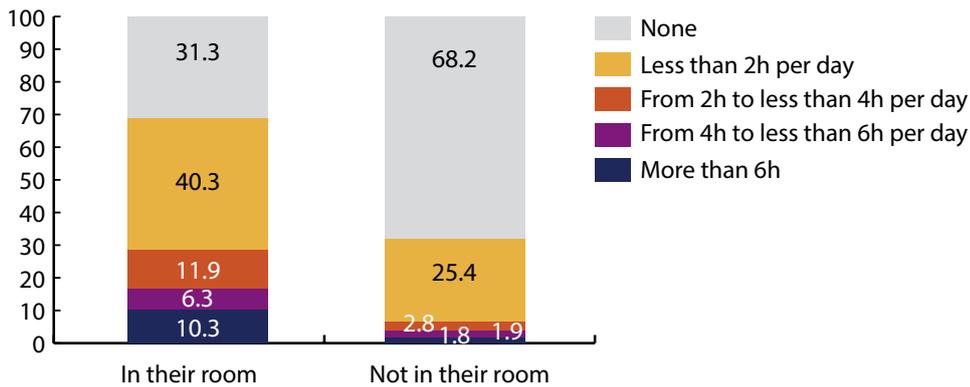


Source: 2017 ESCAPAD survey

GAME CONSOLES

More than four in ten young people reported to have used a game console in the week preceding the survey (42.9%). This use appears to be strongly related to gender (61.9% of boys and 23.9% of girls) and whether the device is in the young person's room (68.7% vs 31.8% of those who do not have it in their room, Figure 5). 14.5% of young people "intensively" used game consoles (more than two hours a day, Figure 2), with this trend affecting six times more boys than girls (24.7% vs 4.1%). This level of use was even as high as 35.6% for boys with a console in their room. Finally, 5.0% of 17-year-olds said they used a game console for more than 6 hours a day (8.7% of boys vs 1.2% of girls).

Figure 5. Amount of time 17-year-olds spend using a game console, as a daily average from the week preceding the survey, based on whether or not they have the device in their room (%)

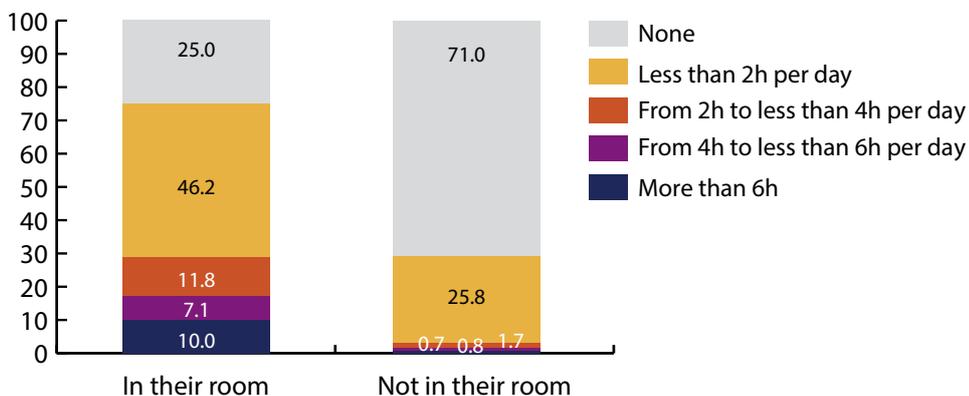


Source: 2017 ESCAPAD survey

TABLETS

Four in ten young people reported that they used a tablet in the week before the survey (40.4%). 12.2% used it for more than two hours a day and 4.0% used it for more than six hours (Figure 2). These levels of use were the same for both girls and boys but there was a significant difference depending on whether or not young people had the device in their room (Figure 6). When this is the case, it is likely that the device replaced a computer, mobile phone or game console.

Figure 6. The amount of time 17-year-olds spend on a tablet, as a daily average from the week preceding the survey, based on whether or not they have the device in their room (%)



Source: 2017 ESCAPAD survey

MOBILE PHONES

Unlike other types of screens, it is difficult to understand mobile phones in terms of duration, as this device can be used briefly, multiple times and for various purposes. The ESCAPAD survey aimed to paint a picture of what an "addictive" relationship with mobile phones could look like and what it represents as an interface for accessing different networks, particularly for socialising. To do this, the survey looked at young people's ability to disconnect completely, turning off their phones so that they would not disrupt them in what they were doing.

More than six out of ten young people said they never turn off their mobile phones while they sleep (61.5%) while 16.9% said they always do. Of the 17-year-olds, 68.1% never turn it off when they are in school, compared to 5.6% who always do. Three in four young people (74.4%) always keep their phones on when they do homework or study and only 3.6% always turn them off in these circumstances.

Amount of time spent in front of a screen a day

If we add up the average amount of time young people said they spent in front of each of the four types of screen (computer, television, game console and tablet, not including the amount of time spent in front of a mobile phone screen) a day over the week preceding the survey, the result is the following: 57% of them spent at least four hours a day in front of a screen and 39% spent at least six hours, while 3% said they did not spend any time in front of any of these types of screens. This approach is clearly speculative, given that it is difficult for people to estimate the amount of time they spend in front of "their screens", especially since they can be used at the same time. Perhaps it would be better to focus on periods where they are away from screens, which are easier to quantify.

ADOLESCENTS' VIEWS ON THEIR SOCIAL NETWORKING PRACTICES

In addition to an approach based on different kinds of electronic device, the screen module of the ESCAPAD survey studied how young people socialise online through reflective questions on their potentially excessive use of social networks.

"To what extent do you agree or disagree with the following statements about SOCIAL NETWORKS (WhatsApp, Twitter, Facebook, Skype, Snapchat, Instagram, Kik, etc.)?"

"I think I spend far too much time on social networks" Strongly agree / Slightly agree / Neither agree nor disagree / Slightly disagree / Strongly disagree

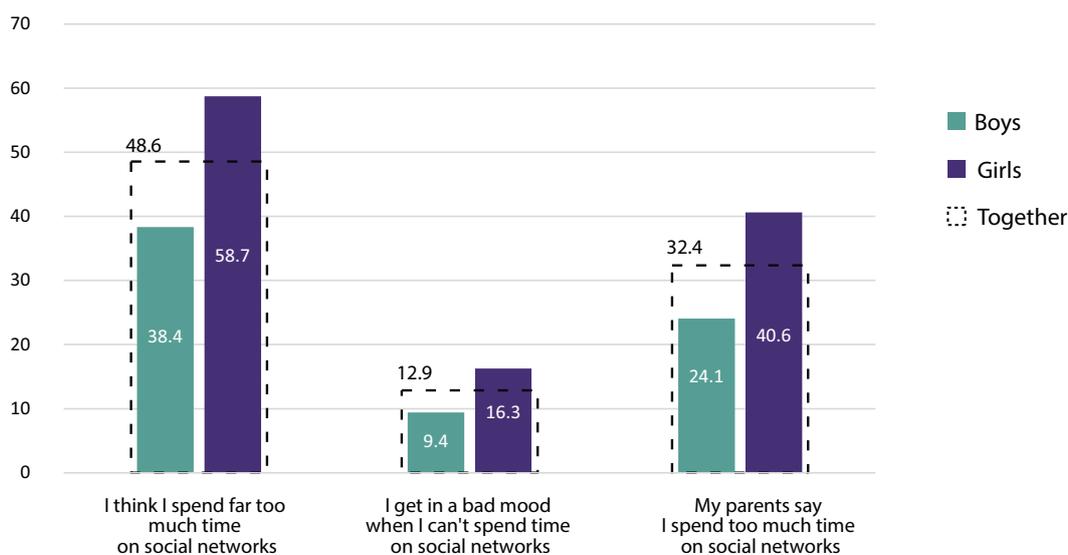
"I get in a bad mood when I can't spend time on social networks" Strongly agree / Slightly agree / Neither agree nor disagree / Slightly disagree / Strongly disagree

"My parents say I spend too much time on social networks" Strongly agree / Slightly agree / Neither agree nor disagree / Slightly disagree / Strongly disagree

Almost half of 17-year-olds think they spend "far too much time on social networks" (48.6%, Figure 7). However, only one-third reported that their parents say they spend too much time on social networks (32.4%). In addition, 12.9% of 17-year-olds reported that they become moody when they cannot spend time on social networks. However, 76.0% disagreed with this, with most of them strongly disagreeing (60.4%).

Girls are much more concerned about this excessive use: 58.7% of them report spending too much time on social networks, compared to 38.4% of boys, and 16.3% of them report being in a bad mood when they cannot spend time on social networks, almost twice as many as boys (9.4%).

Figure 7. Views of 17-year-olds on their use of social networks (% "agree" or "strongly agree")



Source: 2017 ESCAPAD survey

CONCLUSION

These results confirm that screens are everywhere in French adolescents' lives: more than 95% of 17-year-olds own a mobile phone and have access to a computer and television at home.

The study of the use of ICT is currently facing a major difficulty in terms of how these different digital devices are being used. On the one hand, technological developments mean devices are increasingly less restricted to one sole purpose: a phone or computer can be used to play video games or watch television. On the other hand, smartphones can be used for short periods of time and repeatedly, making it almost impossible to estimate how often they are used (the results particularly showed that they were almost never switched off).

Half of young people believe that they use social networks too much. However, only one third said that their parents had said something to this effect. This apparent misconception of excessive use should be explored: it may reflect a need to raise parents' awareness of this issue while providing adolescents with more guidance to help them regulate their own use.

The results also show that adolescents who said they had devices in their room use them much more often than other young people who do not. It is likely that, like mobile phones, the fact that adolescents have their own personal device means parents have less control over how adolescents are using it, both in terms of how long they spend on the device and the nature of what they are using it for.

Nowadays, most young people who play video games play on alternative devices rather than a game console: while 14.5% of 17-year-olds use a game console for more than two hours a day, the 2014 HBSC survey showed that 42% of Year 9 and Year 10 pupils play video games for at least two hours a day (53% of boys and 29% of girls), which could illustrate a shifting away from the games console in favour of playing games on the computer, tablet or smartphone.

To better describe all these practices, future surveys should therefore focus on estimating the amount of time spent in front of a screen, regardless of what type of device it is and to focus more on adolescents' feelings (isolating themselves, losing control, feeling withdrawal symptoms, etc.) and the type of activity they are using it for. Communicating on social networks, looking at cultural content, searching for information and playing video games are all uses of screens that deserve to be studied in more detail, including how long they are using them for and how much time they spend away from a screen.

ESCAPAD: METHOD

Since 2000, the ESCAPAD survey has been interviewing French 17-year-olds. Its main objective is to quantify the use of both licit and illicit drugs in the adolescent population. The fact that it is taken regularly means changes in levels of drug use can be monitored and analysed at both the national and regional level. This continuous observation also makes it possible to identify the emergence and generalisation or decline of certain uses and to study certain characteristics related to the practices of these uses.

ESCAPAD is an anonymous survey, organised in close collaboration with the Department of National Civil Service and Youth (DSNJ), based on a self-administered questionnaire on the National Defence and Citizenship Day (JDC). In 2017, the scheme was redesigned in order to improve the survey conditions and to help civilian or military staff responsible for procuring responses: a video presenting the survey (which can be consulted at <https://www.ofdt.fr/enquetes-et-dispositifs/escapad/>) was projected in all the centres, before responses were procured.

The sampling took place over a period of 1 to 2 weeks in March, and consisted of interviewing all young people summoned to the JDC during the period in question (43,892 young people attended the metropolitan centres in 2017). The procurement took place from 13 to 25 March, throughout all of France, except for Corsica and three French overseas territories and departments (Guiana, Mayotte and New Caledonia), where the period was extended to ensure a sufficient sample size. In metropolitan France, the 200 active centres over the period participated in the survey, i.e. 1,002 JDC sessions, guaranteeing that the sample was comprehensive (the participation rate in metropolitan France, i.e. the total number of questionnaires / total number of participants, was 97.4%). In addition, to reduce the amount of time spent on procuring responses, the interactive screen question module was only offered to a random sub-sample of 15,000 respondents, with the other two sub-samples of 15,000 respondents each receiving a different questionnaire.

After removing poorly or insufficiently completed questionnaires and filtering them based on age, 39,115 questionnaires could be used in mainland France (i.e. 13,330 respondents for the screens module sub-sample). The analysed sample had an even number of girls and boys, with an average age of 17.3 years old. 91% of them were 17 years old and the oldest was 18.5 years old. Nearly nine in ten respondents (89.1%) said they were students. This proportion is significantly higher (86.1%) than it was in 2014, coinciding with the decrease in the number of young people in apprenticeships (7.0% vs 9.7%). Young people who said they had left school, whether they were not doing anything at that time, unemployed, in training or working, represented 3.9% of the sample. These different proportions estimated in the survey correspond to population data (Direction de l'évaluation de la prospective et de la performance, 2017).

Depending on the surveys, additional modules were available to explore new research issues.

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