



Intellectual Output n. 1

“Survey Analysis”

ERASMUS+ PROGRAMME

KA2 Cooperation for innovation and the exchange of good practices

Strategic Partnerships for School Education

AGREEMENT n°: 2020-1-CZ01-KA201-078434

Project Title: 4G Didactic Pills



PREMISE. THE FIELD SURVEY	3
PANEL DESCRIPTION	4
EARLY SCHOOL LEAVING FACTORS.....	6
INITIATIVES TAKEN TO ENCOURAGE FIGHT AGAINST EARLY SCHOOL LEAVING.....	17
Prevention measures.....	17
Intervention measures	19
Use of communication technologies in school tackling ESL.....	19
ICT for students with problems of social hardship (SEN)	22
TECHNOLOGIES AND DIDACTIC	22
Impact of technologies on didactic activity.....	23
Technologies during lockdown.....	28
Technology ability to improve effectiveness of teaching.....	30
Topics of the educational offer suitable for teaching with mobile	31
How to present topics using mobile phone during lesson.....	32
Technologies at School and Life skills.....	33
Technologies impact on student’s ability to plan and self-regulate learning process.....	36
Effects of mobile phones (and tablets) in classroom climate and in teaching activities	37
SEN AND DIDACTIC.....	40
Causes of social disadvantage of SEN students.....	40
Life skills “most important” for students with SEN.....	40
Use of mobile devices in teaching and motivation to study	41
Use of mobile devices to limit the damage due to students’ social problems	42
Use of mobile devices to develop life skills.....	43
CONCLUSIONS	44

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein



PREMISE. THE FIELD SURVEY

The development of the 4G project products, starting from the Didactic Pills to the Manual, is based on a field analysis carried out in all the Partner countries of the project.

The analysis was carried out on a panel of schools, starting with the “associated partners” of the 4G project, to which other additional schools were added to try to collect more solicitations on the topics investigated.

In order to allow greater homogeneity in the survey, the following have been prepared:

- A survey tool, consisting of a total of 21 questions
- A guideline, accompanying the interview, which aims to facilitate understanding of the issues raised and, in the processing phase, to make the results received comparable. The guideline, in fact, specifies the objective of the Project and defines the life skills, starting from the WHO definition, in such a way as to allow respondents to have a homogeneous reference framework. The guideline specifies the target audience as regards the student population which constitutes the specific range of observation, ie 14-15 year olds and students with problems of social hardship (SEN).

The interview was structured in the following sections:

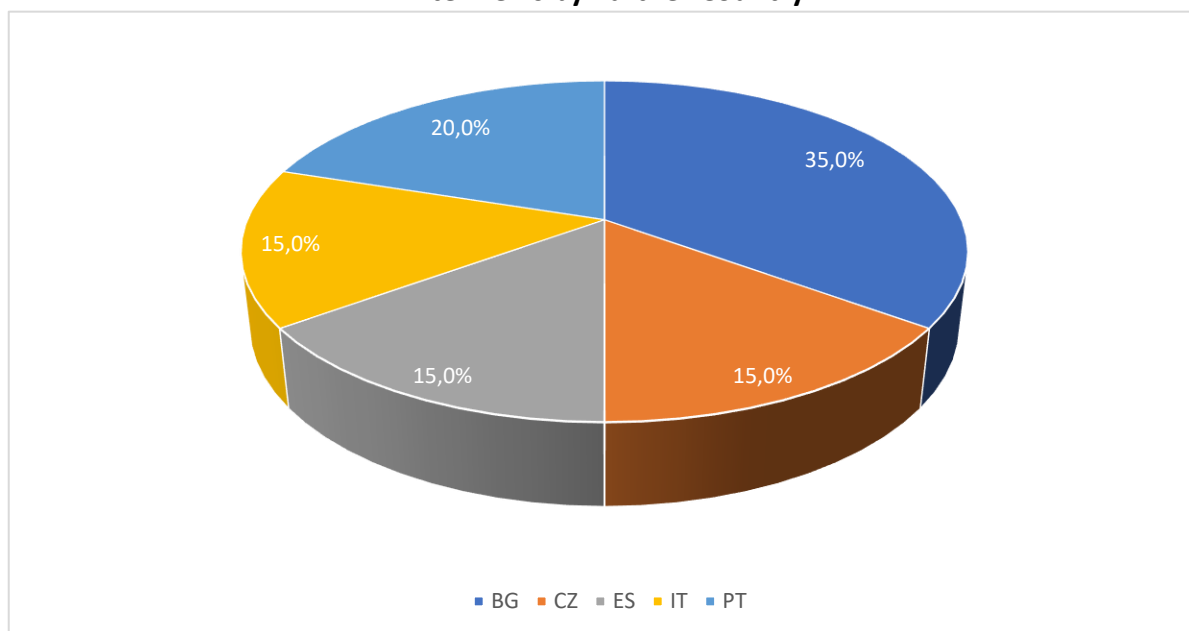
- personal data, for the identification of schools and the percentage of students with special educational needs (students with SEN)
- factors that contribute to foster early school leaving in students
- relationship between new technologies and life skills
- the impact that technologies have and could have on teaching
- the relationship between teaching and special needs, analyzed under all the topical aspects of the project, that is, the learning of life skills and the use of learning technologies (mainly mobile devices).

PANEL DESCRIPTION

Overall, 20 interviews were conducted in the 5 partner countries of the 4G Project. The interviews were distributed as follows:

- Bulgaria 7 interviews
- Czech Republic: 3 interviews
- Italy: 3 interviews
- Spain: 3 interviews
- Portugal: 4 interviews

Interviews by Partner Country



Interviewed schools are the following:

In Bulgaria:

- Tsanko Tserkovski Professional High School of Agricultural Technologies, with 294 students and 6% of SEN students
- Professional School "St. Ivan Rilski" with 2 interviews, one with the didactic manager and one with a teacher who follows students with SEN, with 520 students and 2% of SEN students

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein



- Secondary School “St.St. Kiril I Metodiy”, with 2 interviews, one to the didactic manager and one to a teacher who follows students with SEN, with 320 students and 2,5% of SEN students
- Professional School “Simeon Radev”, with 740 students and 0,27% of SEN students
- Secondary School “Dr. Petar Beron”, with 420 students and 2% of SEN students

In Czech Republic:

- Gymnasium E. Krásnohorské, with 423 students and without SEN students
- Tyrš Elementary School and Kindergarten Prague 5 - Jinonice, with 764 students and 5% of SEN students
- Elementary school Prague 5, with 590 students and 1,5% SEN students

In Spain:

- IES Eduardo Linares Lumeras, with 650 students
- Gil de Junterón High school, with 694 students and 9,5% of SEN students
- Poeta Julián Andúgar High School, with 900 students and 30% of SEN students

In Italy:

- Institute “U.Midossi” Artistic high school -Vignanello (Vt), with 100 students and 25% of SEN students
- ISS “U. Midossi” Civita Castellana – ITT Civita Castellana
- ISS Cavour Marconi, Perugia

In Portugal:

- Escola Profissional de Aveiro, with 700 students and 10% of SEN students
- Instituto Duarte de Lemos, with 161 students and 10% of SEN students
- IPTrans – Escola Profissional de Loures, with 250 students and a range of SEN students from 14 to 35%
- ESPRODOURO – Escola Profissional do Alto Douro, with 88 students and 26,4% of SEN students.

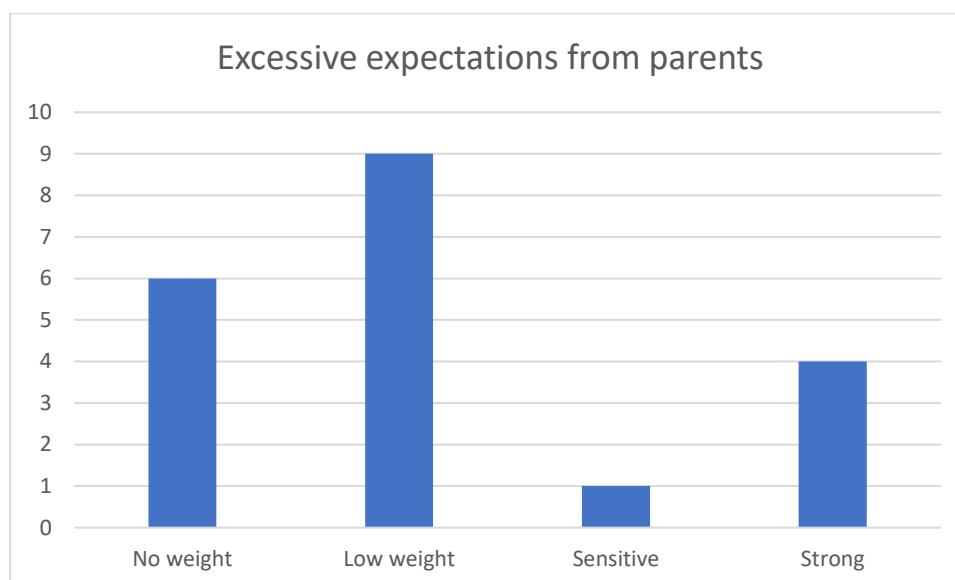
The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein

EARLY SCHOOL LEAVING FACTORS

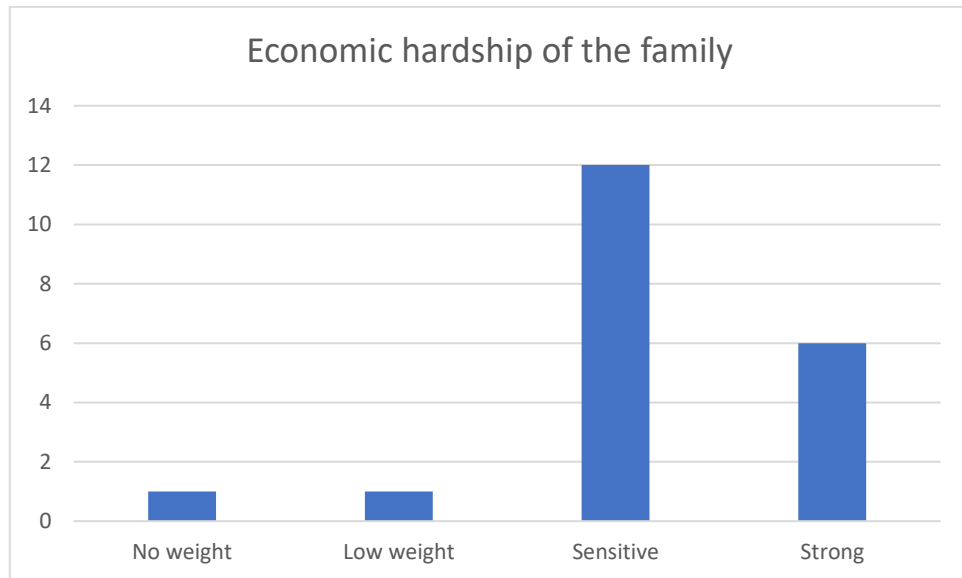
First of all, it was intended to investigate the weight that some factors would have on the ESL. As is known, for some time there has been debate on what may be the underlying causes of the ESL in order to intervene, even preventively, on these and reduce the levels currently present at EU level.

Specifically, the factors identified in the interview were evaluated as follows.

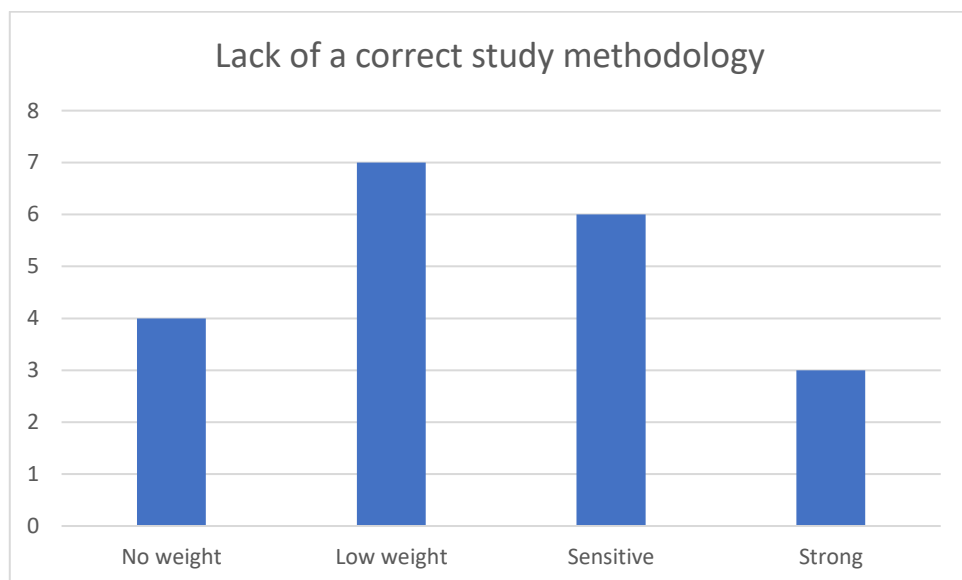
In the first place, the impact of the family's excessive expectations has "low weight".



The judgment on the "Economic hardship of the family" is clear, the impact of which is mainly assessed as sensitive or, otherwise, as strong.

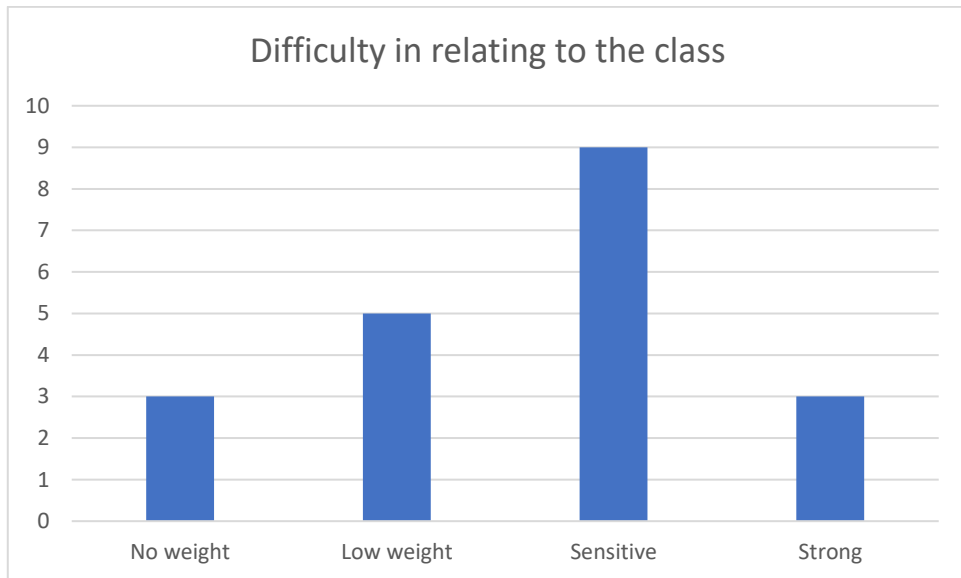


Contrasting evaluations for the factor “lack of a correct study methodology”, considered in most cases “low weight” but there are also results that go in the opposite direction, considering it as a “sensitive” factor.

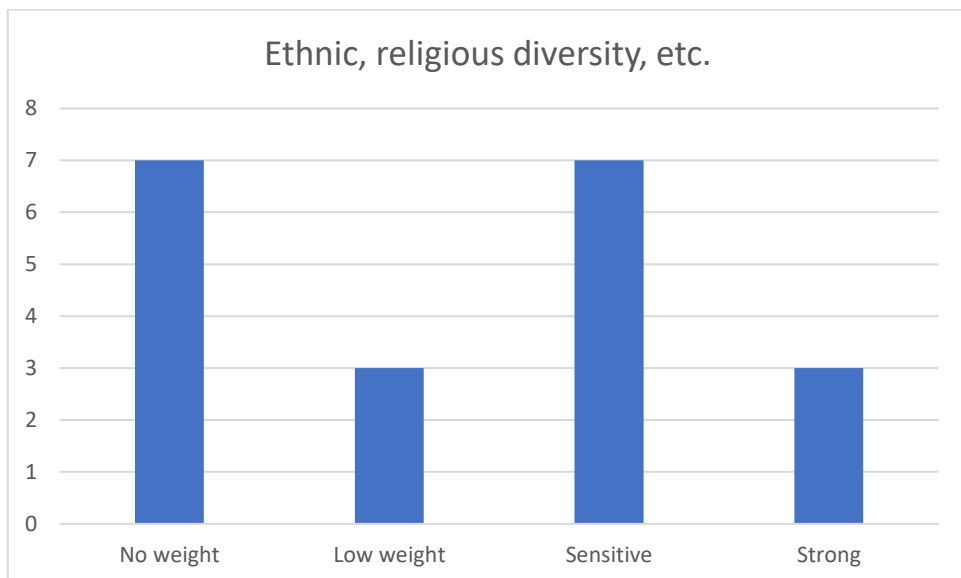


The classroom climate has a significant weight, with the “difficulty in relating to the class” which has a high concentration in the item “sensitive”.

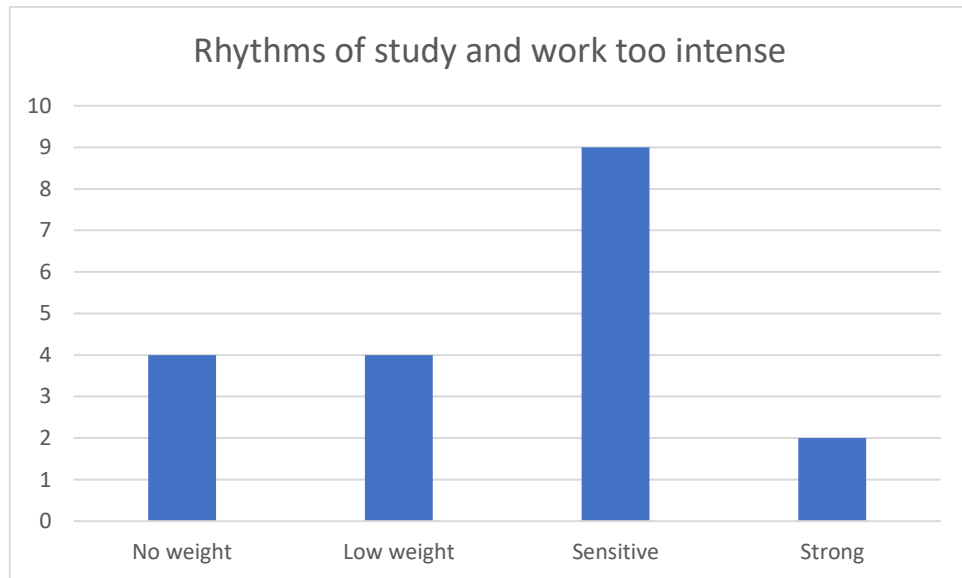
The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein



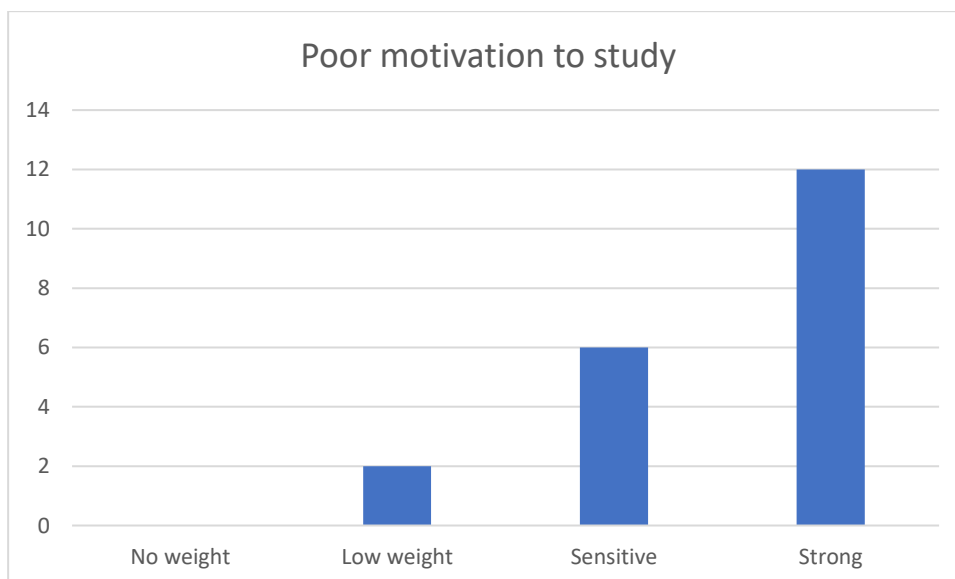
Contrasting opinions with respect to the factor “Ethnic, religious diversity, etc” which, by equal shares of the interviewees, is considered a “sensitive” and “No weight” factor.



A too high commitment to study and work at school (“Rhythms of study and work too intense”) is a “sensitive” factor for most of the interviewees.

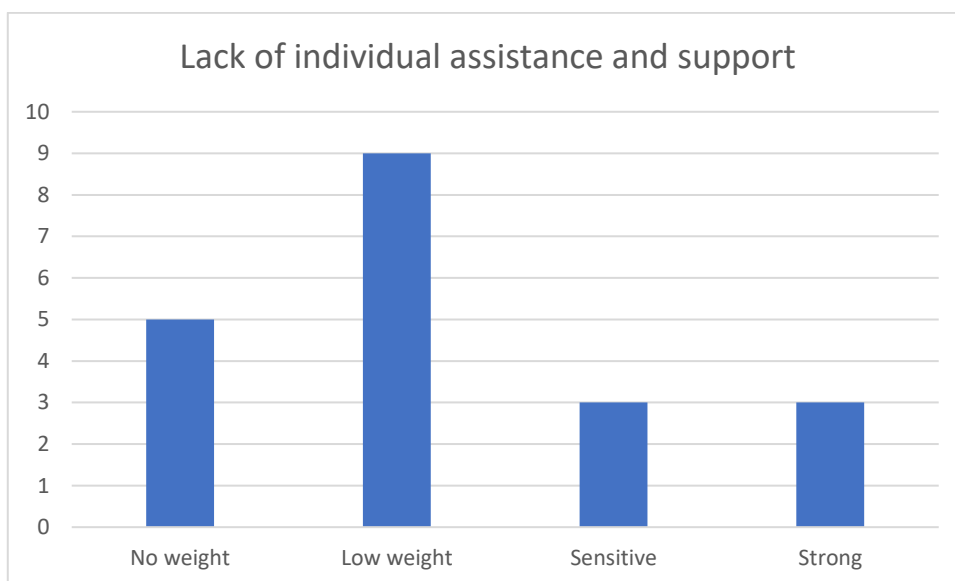


There is a large confluence of assessments on “Poor motivation to study” which for almost all respondents has an important impact, being a factor behind the ESL to a “strong” or “sensitive”.

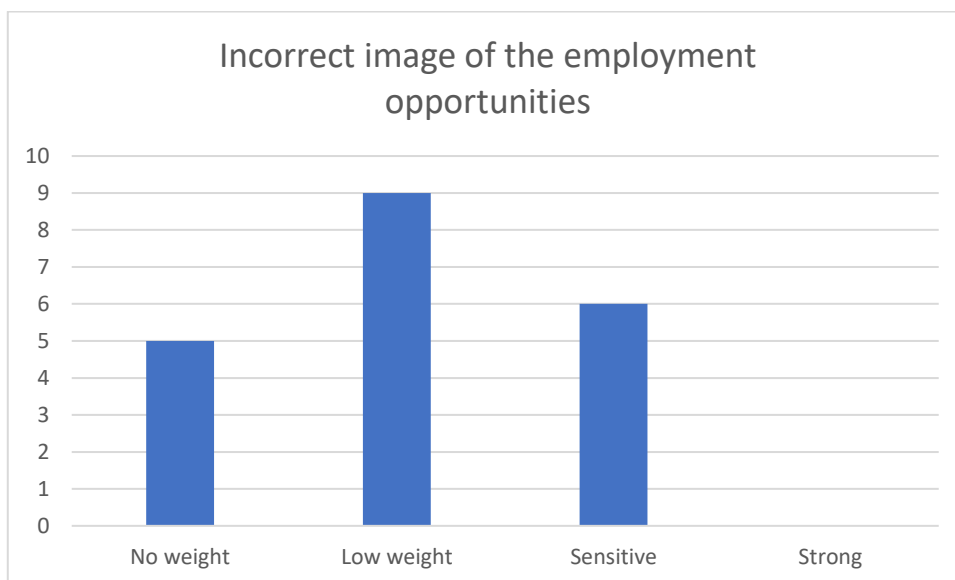


The “Lack of individual assistance and support” factor, which is of little importance for most of the interviewees, does not seem to have a sufficient impact.

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein

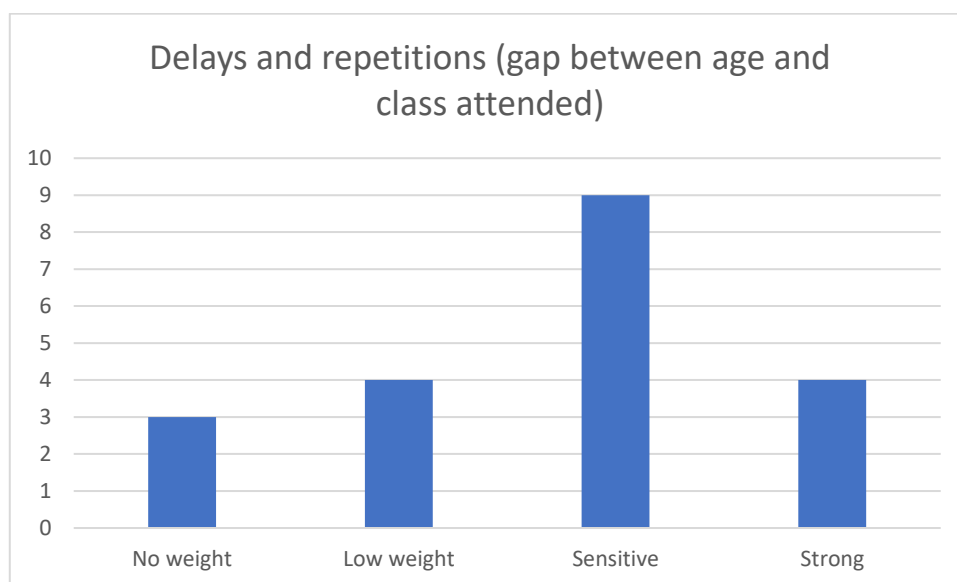


Likewise, the employment prospects out of school (“Incorrect image of the employment opportunities”), even if incorrect, do not have much impact for the majority of respondents, even if for a good share of them it contributes to an extent “Sensitive”.

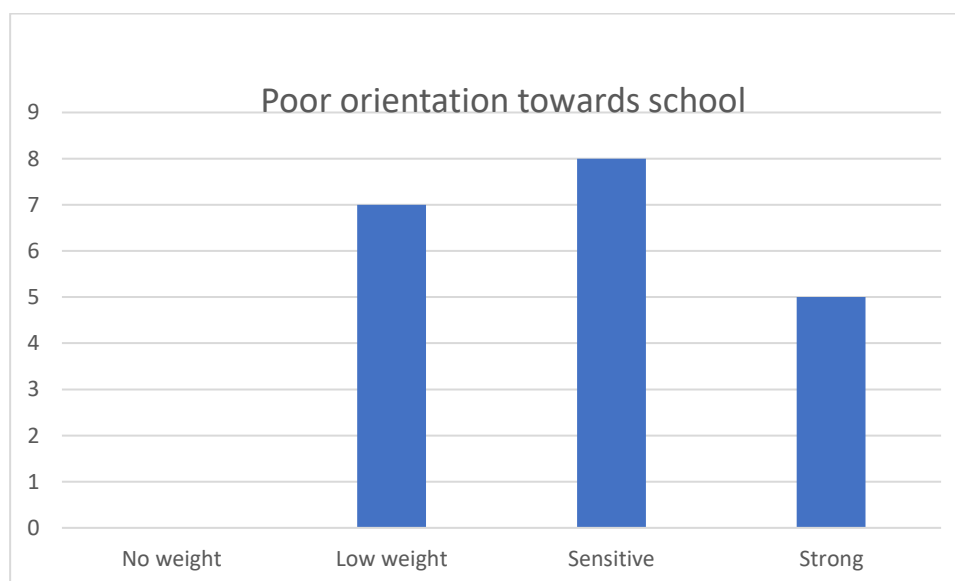


The delay in school, that leads to being in the classroom with younger students (“Delays and repetitions (gap between age and class attended”), has a “sensitive” or even “strong” effect.

Therefore, it's important to pay attention to failures because they risk generating an atmosphere in the classroom counterproductive and leading to disaffection.

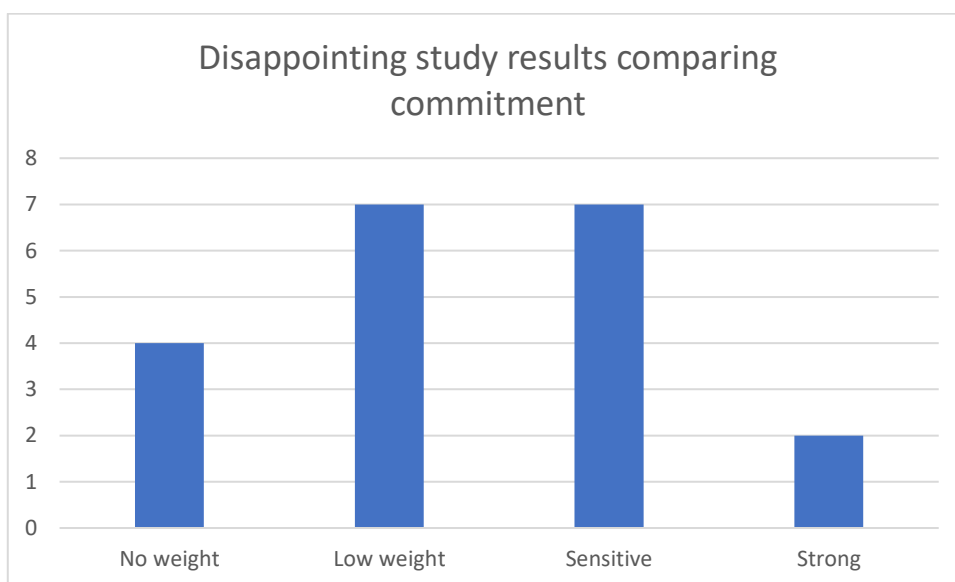


A “poor orientation toward the school” certainly causes misunderstandings and bad choices and therefore, with some exceptions, is seen as a factor that can have a decisive impact on abandonment.

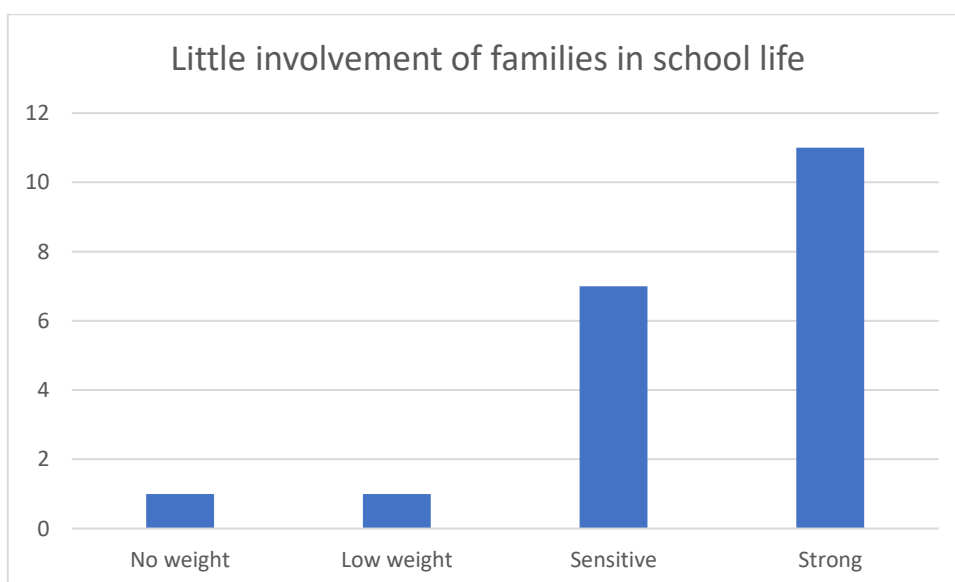


The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein

The evaluations related to “Disappointing study results comparing commitment” are contrasting, as the high values of “sensitive” are more than offset by the answers “No weight” and “Low weight”.

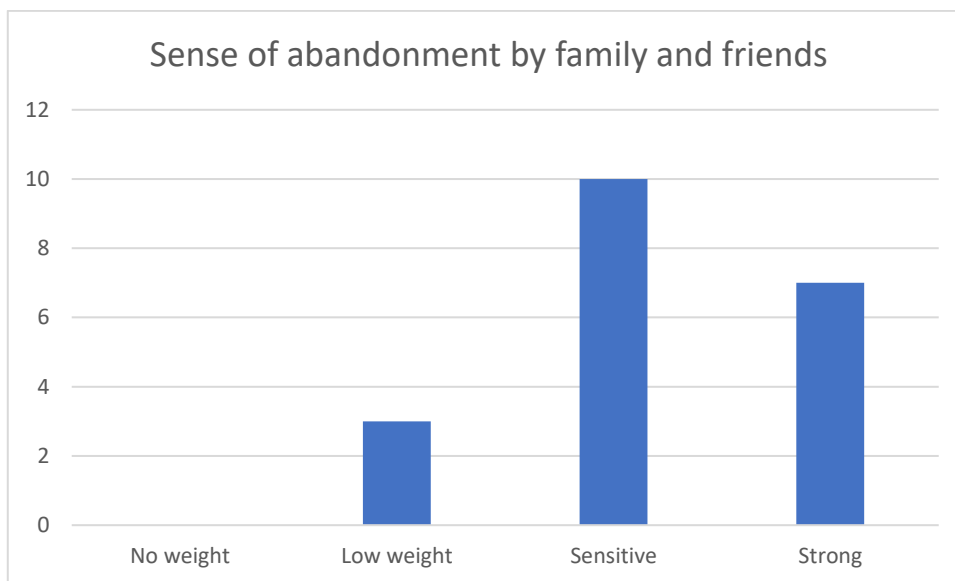


Opinions strongly converge with respect to the factor “Little involvement of families in school life” which seems to have a strong and a sensitive weight for most of the interviewees.

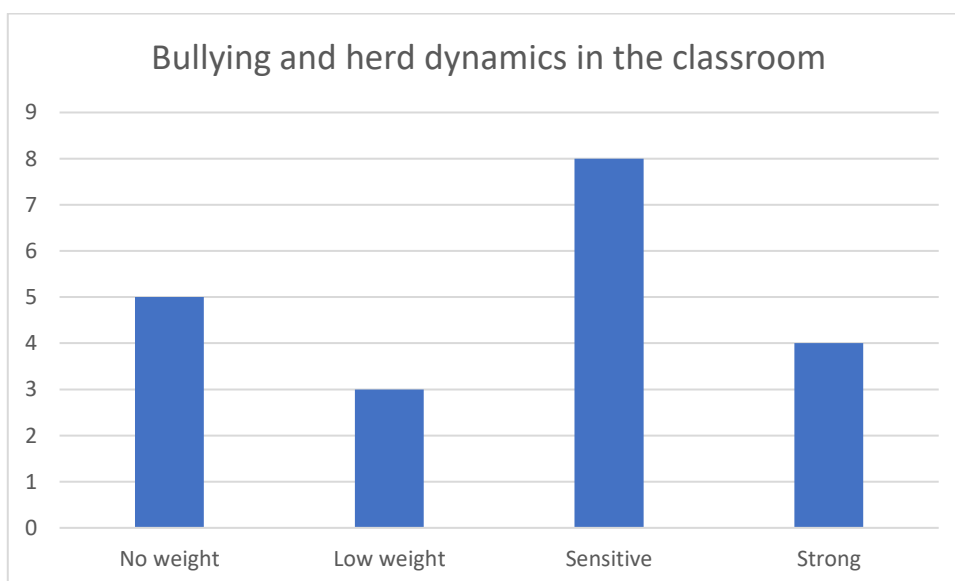


The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein

Closely related to the previous one, and therefore with very similar judgments, is the “Sense of abandonment by family and friends” factor. In summary, we can say that the support from the circle of affections appears to have a decisive role in affection for schooling. When this fails, the student’s stay in the school seems to be at risk.

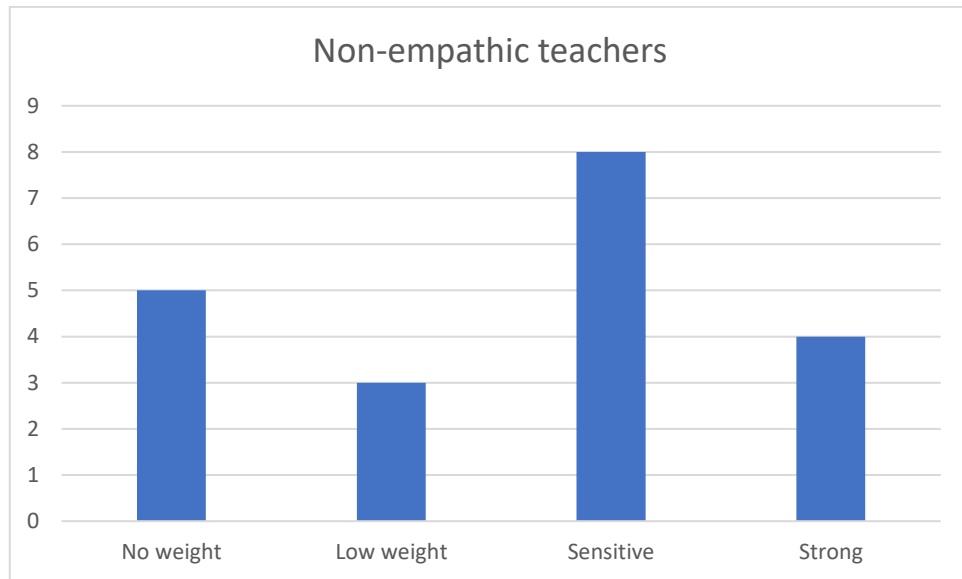


In absolute continuity with the two factors just seen, phenomena that alter the classroom climate and affect the student’s tranquility end up having a decisive impact. Therefore, the “Bullying and herd dynamics in the classroom” factor is considered mainly “sensitive” or even “strong”.

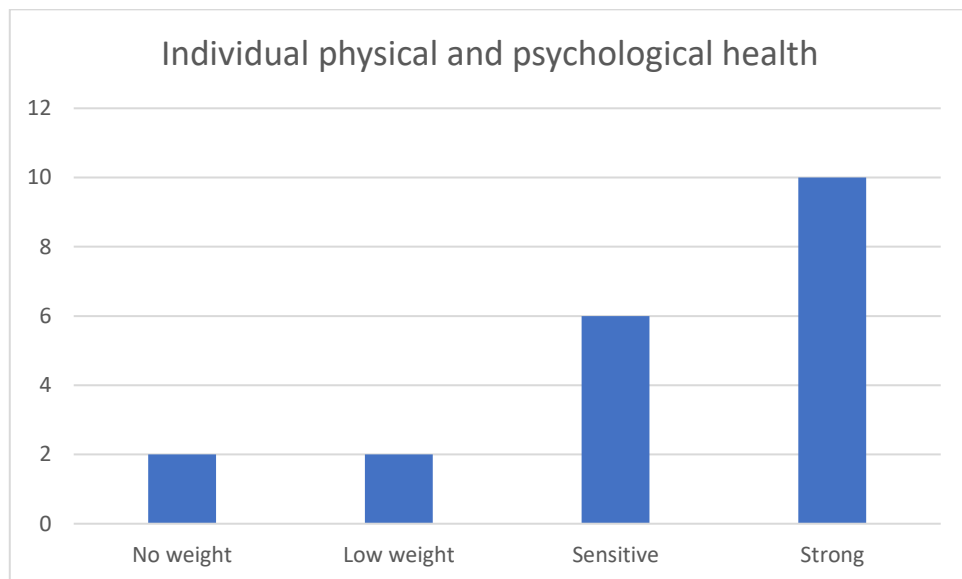


The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein

Also in this case, we are referring to a factor that translates into an element that conditions the livability of the class. Therefore “Non-empathic teachers” are crucial in discouraging the student, in the same way as “Bullying and herd dynamics in the classroom”.



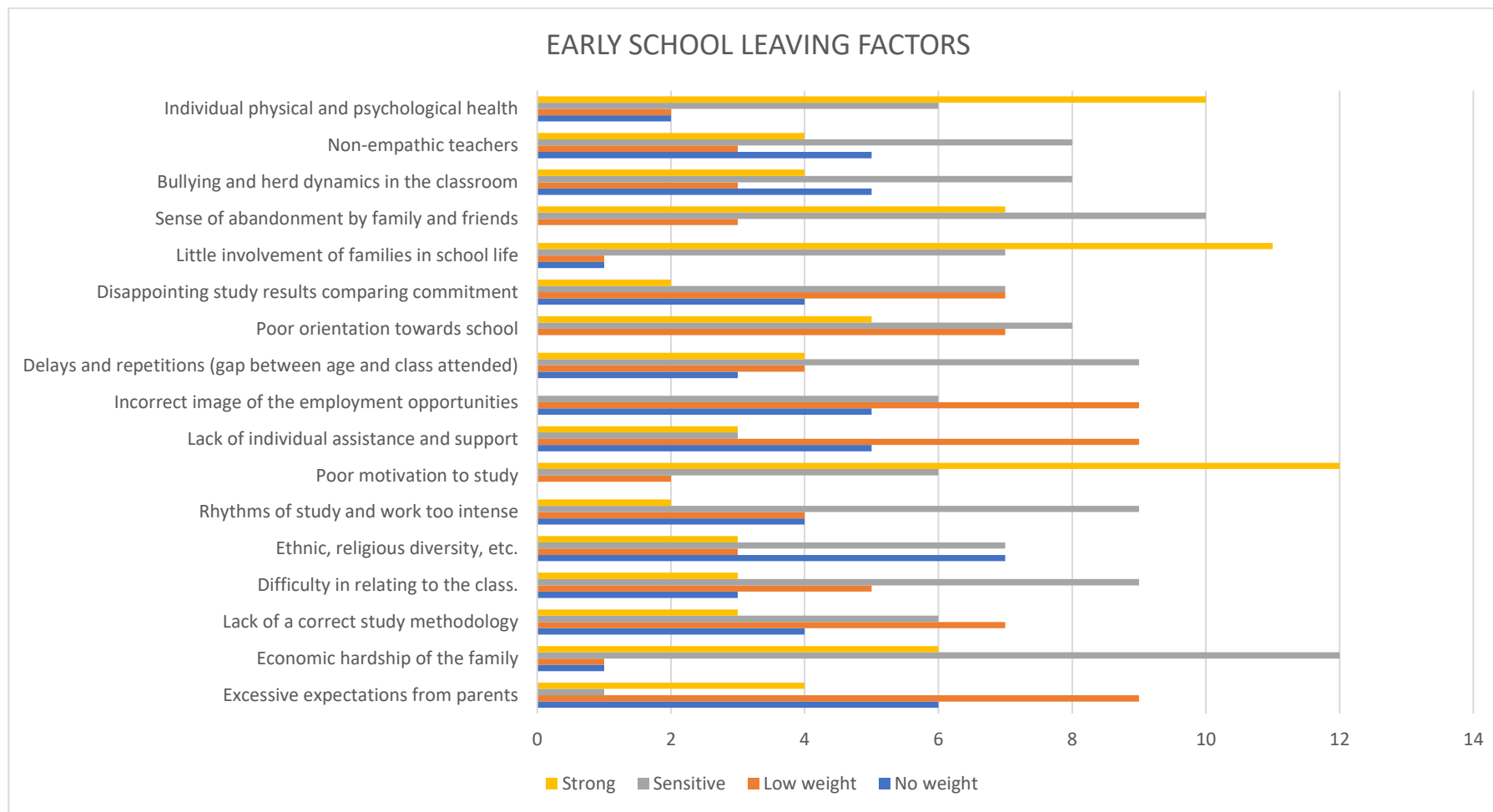
Finally, it is clear how important “Individual physical and psychological health” is, which is generally understood as a factor with a “strong” impact or, alternatively, “sensitive”.





Overall, among the proposed factors, there are the highest responses in the incidence factors, as shown below:

- No weight: records the highest value of answers corresponding to the factor “Ethnic, religious diversity, etc.”
- Low weight: records the highest value of answers in correspondence with the factor “Excessive expectations from parents” and the factor “Incorrect image of the employment opportunities”
- Sensitive: records the highest value of responses corresponding to the “Economic hardship of the family” factor and the “Sense of abandonment by family and friends” factor
- Strong: records the highest value of responses corresponding to the “Poor motivation to study” factor, the “Little involvement of families in school life” factor and the “Individual physical and psychological health” factor.



The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein



INITIATIVES TAKEN TO ENCOURAGE FIGHT AGAINST EARLY SCHOOL LEAVING

A series of activities to combat ESL are highlighted according to two different types of approach.

Prevention measures

Some schools focus on the design and delivery of a training offer which, in addition to facilitating the learning of cultural and professional notions in view of future work, is at the same time very focused on inclusion and social integration, thus making the school environment not only a place to study, but also a place to interact with others and with various social contexts, so that students can graduate having acquired teaching notions, but also life experiences, looking to the future with maturity.

In other cases, very concrete measures are put in place to create an extremely positive school climate but also to facilitate participation in school life.

The initiatives implemented can be grouped as follows:

Early needs assessment/Career orientation and prevention of learning difficulties. It acts through initiatives aimed at diagnosing the starting conditions. Therefore, at the beginning of the school year, a diagnosis of the educational needs of the students is made, and a diagnosis of the socio-economic condition of the students' families, too. The early warning activities are significant, through which the performance and moods of children are constantly monitored in order to promptly detect cases in which students show problems attributable to the ESL phenomenon. These activities are carried out through a teamwork between teachers and other pedagogical specialists.

Work with families. Equally important are those initiatives that involve families, establishing a dialogue and constant confrontation with them. Work with parents includes conversations with parents to improve the family environment and provide appropriate conditions for the student to do his homework; providing psychological support when there are family problems and misunderstandings between parents; providing financial support when the family has difficulties and cannot provide the student with the necessary teaching aids, materials, clothes, etc. In some cases, we arrive at the construction of an "Educational Commitment" which involves families (as true "Allies in Education") in the whole educational and formative process of the student prevents, rather than "remedying", the issue of early school leaving.

Preparation of individual assessments. Personalized teaching plans are also activated where possible, which also include the assignment of human and digital tools to support students in participating in teaching and school life. Personal support plan. Research and analysis of the main reasons and factors for student absences and the risk of early school leaving. Meetings with the

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein



school team for personal development support, parents and other involved institutions. Results are achievable when parents are partners in the learning process and responsible to their children. There is a good level of success in this direction.

Class hour. A further important element is the work in the classroom which focuses on the aspect of emotional dynamics. Class work is carried out during the so-called “Class Hour”. During this lesson, each student shares his/her emotions, worries and attitudes. Of course, there is a class leader as well as small interest groups. Students are encouraged to help each other and prevent dropping out of school. This whole lesson is held under the supervision of the teacher. If necessary, measures are taken by involving other teachers, school administration, etc.

Commission for prevention of early school leaving. This plans and monitors the implementation of the activities. A favorable environment is created for providing effective support, consulting activities with parents, teams for identifying needs and risk tracking, providing additional support, conducting consultations, career guidance, activities for prevention of school bullying.

Students’ self-government. Activity of the students’ council to encourage students to actively participate in school life.

Interesting activities. Clubs, bazaars, boards, extracurricular activities, promoting the success of students in social networks and other forms of encouragement with moral and material rewards.

Material support. Providing a dormitory; Scholarships and targeted financial support; Free transport to school; Free textbooks from the library. Detecting the lack of devices owned by the students (tablet/ computer/ laptop) at home, as well as the ones who have problems with the Internet connection at home; handing over devices (laptops) to the students so they could follow the online lessons and deliver their homework; providing Internet cards to those students with problems at their own Internet connection; installing computers and cameras at the classrooms of all groups and education levels so the students who must stay at home can follow their lessons online; monitoring the students who do not connect online and who don’t deliver their homework through the Virtual Classroom; delivering materials (Text books, printed activities and/or materials of specific subjects) to those students who can’t afford to buy them on their own.

Specific lessons. There are lessons on thematic for prevention of violence and overcoming problematic behavior or additional training in subjects about drugs, harmful substances, alcohol and precautionary measures. Or workshops and group talks from different collective and organizations (for example, the University).

Specific integrated initiatives. “Perfect Alliance”, composed of two psychologists, a social worker and the support of people from the music and social entertainment sectors and other areas, who

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein



work together. This “Perfect Alliance” has an objective which is to make the connection between the community (sustainability projects, for example, that the school has), between the companies (they deal with the internship protocols); they also deal with the students’ difficulties, i.e., not only the multidisciplinary team of support for inclusive education deals with these students, but also the whole social support team, all types of difficulties, for example, of using computers, of being in the class, and then they also have the other connection with the family, they assess family problems. And why the “Perfect Alliance”, because they have the information and the capacity for holistic intervention in several of the problems that may affect the student.

Intervention measures

Parent’s involvement. In cases of dropout, teachers and managers promptly take care to call parents, organize meetings and plan support strategies to encourage a renewal of interest in school.

Protocol of absenteeism. When a student doesn’t attend to school, Protocol of absenteeism and ESL will be developed, through a team work (where tutors, Services to the community teacher and head of studies take part), where interviews between the student and his/her family are carried out. Depending on the situation, a personalized intervention is organized. If these measures don’t work, the case is diverted to specific local Authority. These professionals, together with the Services to the community teacher, establish a team action protocol.

Observation and individual support. Early interview of a class teacher in cooperation with an educational counsellor and a school psychologist or mentor with a student, based on the observation of a significant deterioration in study results or frequent absence from school. Informing the student’s legal representatives and subsequent negotiations with them. Similarly, there is a service of individual tutoring for repeating students. Some schools have multidisciplinary team, with technicians trained to do this work of monitoring and individual intervention.

Use of communication technologies in school tackling ESL

Before the pandemic

Alternative teaching methods are the state-of-the art information and communication technologies (ICT).

All the schools interviewed made use of technologies in different ways and with different intensity.

We found the following situations:

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein



- Free access resources are used, which can be changed according to the possibilities and needs of the students with SEN
- Use of modern digital tools to support the lessons but also to implement interdisciplinary and interactive teaching methods, which aim to involve students personally in the implementation of teaching activities and provide an overview of future activities that students can choose to carry out in working field after completing the studies
- Use of IT platforms to assigning homework, apologizing for absences, signing up for various activities, using the surveys module (choosing seminars, signing up for sports and other courses), distance learning, synchronous and asynchronous teaching, assignment through Google classroom, support through consultations (personal individual consultations, online individual consultations), interventions, the subject of special pedagogical support
- Intensive use of ICT for learning. All students and teachers have a computer, which allows easy communication anywhere (school, home, business) - a facilitator for learning. The student uses the computer not only to communicate, but also to work and store his/her work
- Web-based resources providing games and entertaining materials can be used by teachers and parents of children with learning difficulties both for additional training and for exercising and consolidating already acquired knowledge
- Use of platforms that allow agility and effective communication between all parties (students, teachers, families, companies); academic and administrative portal, that contemplates daily actions and challenges and organises all the information about the students. It is a digital communication tool and a true encyclopaedia of each action, each student, the materials used, etc. This has allowed the development of educational project and the prevention of school dropouts. Support tools that do not waste a lot of time on bureaucratic and administrative work, giving to teachers more time to focus on the students and to help them more closely, thus providing individual learning.

During pandemic

During the pandemic, Information and Communication Technologies (ICT) developed further at school. With the advent of distance learning, school lessons were no longer carried out in person (at school), but via PC, through different platforms.

In the process of distance learning were used pre-prepared materials and adapted content.

The beginning of distance learning was a challenge for SEN students. They found it difficult to adapt to the new conditions. Efforts to overcome communication difficulties were also made by the students' parents. At the beginning of the distance work, some of the them face **difficulties**:

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein



- Lack of technical training device, lack of internet at home, poor conditions for learning from home
- No uniformity in the way of communication, teachers used different platforms to communicate with students, which in many cases caused clutter for students, especially in the field of assignment
- Students used computers and mobile phones, but more for games and social networks. When they are asked to work, we can see the gaps and when we had to start distance learning (due to COVID) those gaps were even bigger
- Three and four children in a family of different ages, who must study at the same time in one room
- Many of the students stated that they did not have a camera on the computer or that it was not working, or that the internet connection was slow and they preferred not to turn on the camera. In this way, the teacher did not have direct visibility to the students and did not observe their behavior. Thus, students used the time to do other things, but only to be formally included in the online platform. In the process of distance learning there were moments of problems with some of the students, connected with namely with technology
- Most of the students used the mobile phone to connect to the didactics activities but in many occasions it generated problems to send the tasks.

Some of these challenges were overcome with the help of the school, by providing office laptops for work (students have the opportunity to borrow computer equipment or were also provided with an Internet connection).

With short training sessions students were improved using ICT more and not losing their learning. They were allowed to use their mobile phones even inside the classroom (from September) to carry out research and other activities suggested by the teachers. They used the phone less for “games”, because teachers are working on it. With this new distance learning phase, everything is going much better. Nevertheless, there are still some gaps.

The Learning and Academic platforms are preferred and more acceptable because they are illustrated, simplified and related to the surrounding reality. For students with SEN, and for many students at risk of dropping out, the platform connection was the most easily accessible and preferred by their parents too.

Actually, most of the obstacles have been overcome and quality training is being achieved.

Technologies have become useful today for three different reasons, as they are:

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein



- tools to support the organization and management of one's professional activity, tools that can help make the activity carried out by teachers outside the classroom more effective;
- tools to support cultural activity, as the Internet offers: the possibility of finding materials useful for teaching the disciplines, the possibility of communicating / collaborating in a profitable way with distant colleagues and experts, the possibility of participating in debates and seminars on topics of interest without the need to move from school or home;
- tools able to improve and facilitate the learning process of the discipline by the students
- defined procedures that provide for the use of the same platform by all teachers and the ordinary use of "school" e-mail.

ICT for students with problems of social hardship (SEN)

Schools have tried to reduce the digital breach and, therefore, to avoid their early school leaving. On the other hand, the use of technologies in some cases can make more appealing some subjects and prevent from the students ESL. In some cases, students with SEN are taught through online and video lessons in an appropriate language.

Lastly, an initiative should be noted, "the Coordinator of the Future". This figure has the responsibility of registering in a software program, the Dreamshaper, in which the student writes a life path, that is, reflects on a life path. This software force students to reflect on different subjects/topics and it has had more interesting results. However, the feeling is that before the pandemic everything was going very well, with the pandemic there are now many depressed students, and we are facing many non-technological challenges. The problem is not the lack of internet access; what it's difficult to respond is how this technology can attract the students' attention and motivation, how we captivate them for the activities, and here we lack some gamification, something that we have not been able yet to transfer to these communication technologies.

TECHNOLOGIES AND DIDACTIC

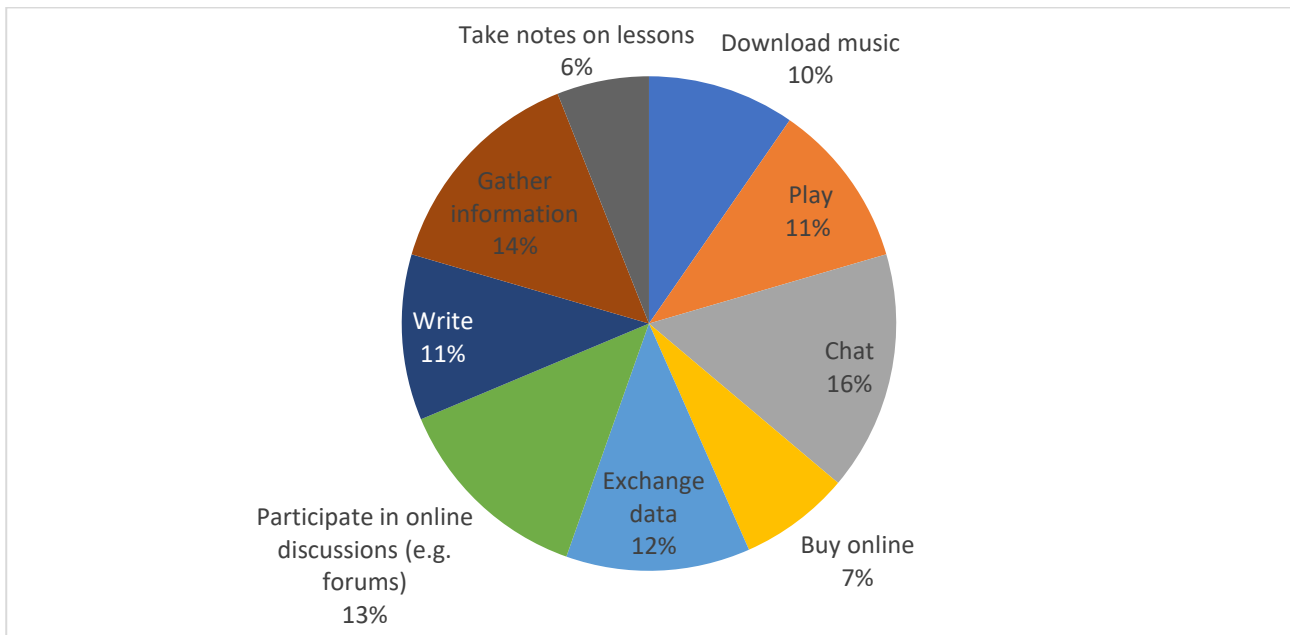
In the schools surveyed the level of diffusion of mobile phone is significantly extended.

In 85% of schools, the mobile phone has a very high level of diffusion, ie higher than 80% of students and in the remaining 15% the diffusion is high (between 60 and 80%).

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein

Students use mobile at school mainly to chat (16%), gather information (14%) and participate in online discussions (13%).

Mobile use by students at school



Impact of technologies on didactic activity

The interviewees were asked to express themselves on some aspects related to technologies and their impact on teaching and students. The questions raised in this regard relate to:

- New technologies
- Cell phones and mobile devices (tablets).

As for new technologies, given that their effect depends on the former knowledge about the practice of these; highly affecting in a different way if they are students with special needs or if their families are involved in their academic development. That said, the following has been highlighted:

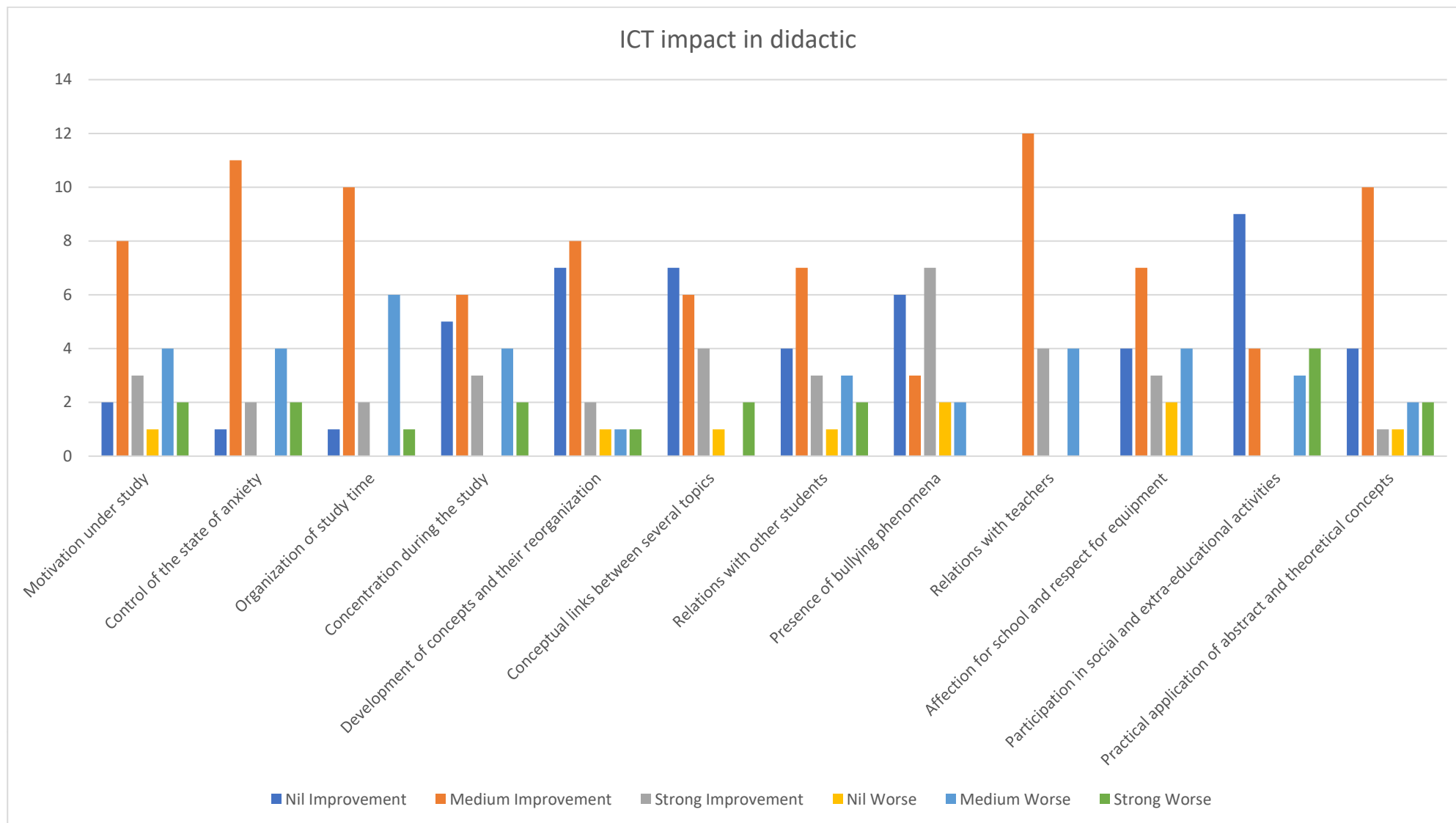
- A medium-level improvement mainly on all 12 phenomena/aspects envisaged in the application
- No improvement, for several respondents, especially on aspects relating to participation in life, including extra-school activities (“Participation in social and extra-educational activities”)

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein



- The impacts on the phenomenon of bullying “Presence of bullying phenomena” are also strongly contrasting, as we have high concentrations of responses in terms of strong improvement. This item, to be precise, records the highest value of responses relating to a high improvement; at the same time, there is an even number of responses relating to “no improvement”
- A negative impact, that is a big worsening, of both “participation in activities, including extra-curricular”, “concentration during the study” and, finally, “motivation to study”.

In summary, there are some fixed points on the impact of technologies but they are few. They seem to have a positive effect on most of the aspects connected to school life but, when we go to analyze the single aspects, the opinions expressed are, at times, strongly contrasting. If we take for example the ability to relate concepts (“Conceptual links between several topics”) and the connected ability to “Development of concepts and their reorganization”, contrasting considerations are highlighted, with a strong concentration of answers on the “medium improvement” but also “strong improvement” and at the same time many responses related to “no improvement “. Probably, actually, the consequences related to an increase in the use of ICT in teaching are not yet known and there are also many prejudices in this regard.



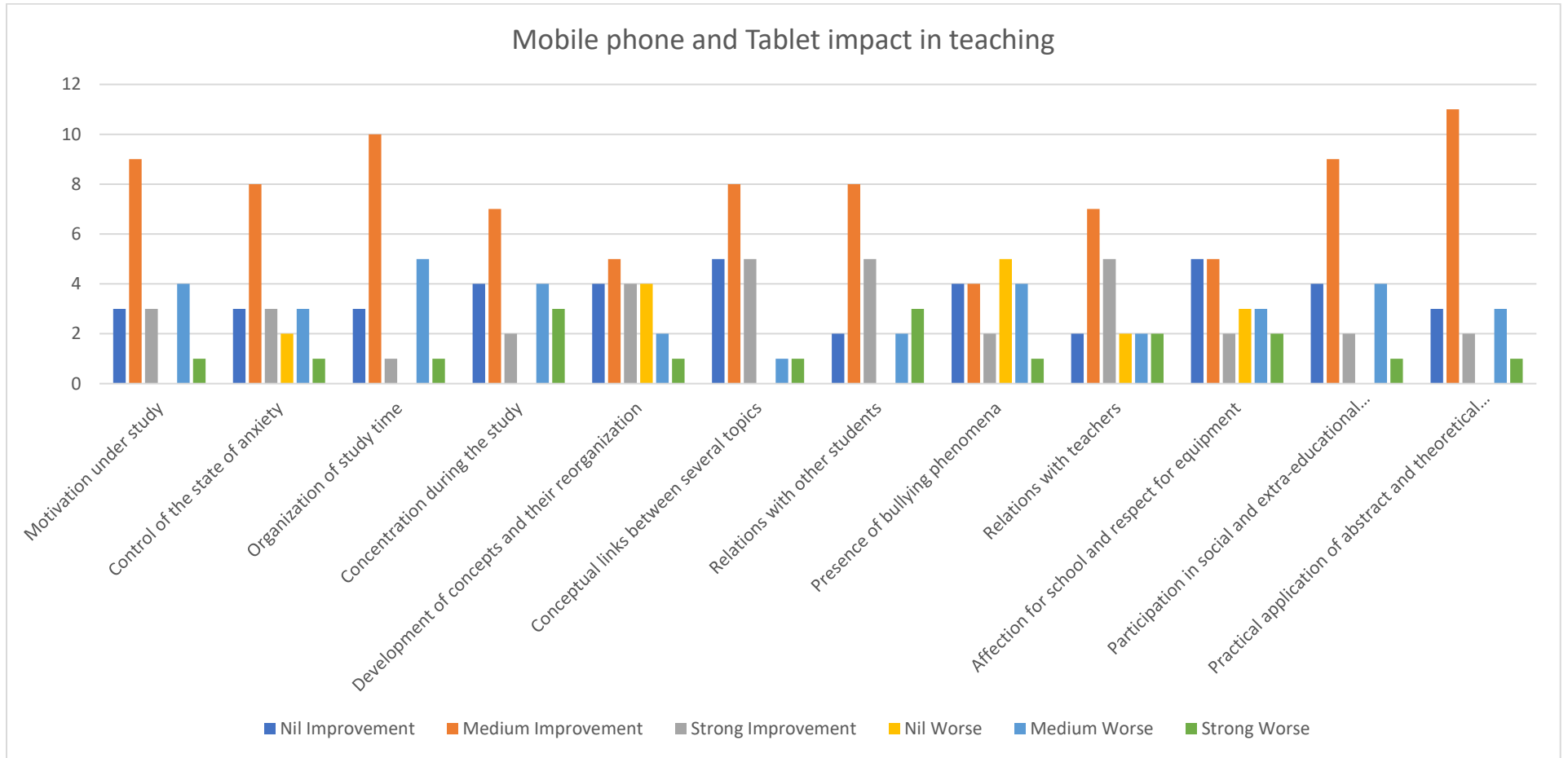


As for the use of mobile phones and tablets, i.e. mobile devices, in teaching and their impact on students, the following considerations are highlighted:

- There is a general improvement of intermediate level, in particular in the following aspects: motivation to study, anxiety control, organization of study time, level of concentration during the study, ability to conceptualize different topics, relationship with other students, with teachers, affection for school and participation in educational and socialization activities
- There is a strong improvement, for about 25% of the respondents, in the areas of the relationship, both with other students and with teachers, but also on the cognitive aspects, i.e. the synergy of concepts belonging to several topics
- For 20% of the respondents, these tools on average worsened the motivation to study, the ability to concentrate, the phenomenon of bullying and participation in educational and socialization activities. The organization of study time appears to have suffered from an average level of deterioration for a quarter of the respondents.

The **effects of devices in teaching are controversial**, on the following aspects:

- the phenomenon of bullying, considered as an aspect that has undergone both a medium level of worsening (20% of respondents) and no type of variation (almost 50% of respondents)
- relations with other students, which would have undergone a strong improvement for 25% of respondents, a medium level of improvement for 40% of respondents and, exactly in the opposite direction, a sharp deterioration for 15% of respondents.



The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein



Technologies during lockdown

During the pandemic for certain months switched entirely to distance learning. Schools applied different kind of organisation about mobile phone:

- The use of the mobile phone was crucial in many cases. The classes were performed through GoogleMeet, the students had to connect and in many cases they didn't have any other device as a computer or a laptop. For some students, the possibility of using mobile phones is the only possible source of teaching and communication with teachers and classmates. They mainly use Wiber and Whatsapp. Furthermore, Google classroom and Google meet. Thanks to the use of phones to attend the lessons, many students did not lose the drive that the classroom attendance implies. Even though it took a while to get adapted, especially because of the circumstances surrounded many families, the students rapidly got used to the platform and what is more, they approach the phones not only as a leisure device but also as a working tool.
- A low percentage used the mobile phone to work (especially the ones with socio-economic disadvantage). The results weren't good in comparison with the ones who use a computer or a laptop, as the phone is limited. For this reason, during this current school year Schools have lent computers to this type of students.
- Some schools do not use teaching with mobile phones.

The **advantage** of using mobile phone:

- Students can work better with their phone than other devices
- The mobility: you can access to the information, email and other apps more rapidly than with other devices
- It is faster in the communication process
- The motivation for using educational games and videos improves. It also facilitates the visual presentation of information, which improves perception. There are opportunities to get various tasks, exercises and use them effectively. Students improve their technical skills.
- Communicating with the agility that the smartphone allows and overcoming some difficulty in using internet communication, when this happens.

The **disadvantages** of using mobile phone:

- Mobile phone is, in 90% of the cases, used for personal issues and when students are allowed to use it for research issues they will use it only for personal issues, they can't differentiate or dissociate the situation, and from the 'paying attention/attentional' point of view this loses a lot in the learning context. So if other means are used simultaneously, it may generate

some confusion. Students don't stop sending messages, assignments and even a "Hello", anytime and any day.

- Working on telephones as the only source of communication with teachers is not ideal, it is only suitable for ordinary communication and not for teaching. If the student does not own another device, it is difficult to perform tasks designed for asynchronous teaching
- Mobile phone will make learning even more individualized, i.e., to use the mobile phone in the classroom there would have to be a very big change in the mindset of the educator, which does not exist, nor it possible to happen in the short term. We have to analyse that classes have two players, the student and the teacher, and when we use the mobile phone process, it can only work in a distance process, with the student at home. Student will use the mobile as if it were a game and this way, it could be useful for the curricular activity
- Lower degree of functionality of the phone when you need to create drawings, tables, and projects which require special applications. In teaching, the telephone serves mostly for verbal communication, but it is difficult/impossible to present the learning content on a whiteboard, to write formulas and to make drawings, etc. The functionalities of the MSTeams educational platform cannot be used. Most of the student which used them complained of the screen size when working
- Lack of communication in a real communicative situation, which reduces social and communication skills
- Students with more experiences have learned to use smartphones and tablets to make suggestions to their classmates during checks or interrogations, with obvious collapses in preparation and the ability to face commitments from a preparation and stress point of view once back in presence.

The idea of using mobile phones and tablet for training is very innovative and necessary. Thus, the learning process will be conducted in a familiar and friendly environment for students. This is especially important when it comes to students with SEN. The interviewed schools provided **some suggestions**:

- A major challenge will be the didactic approach that will be used to present the lessons and teaching material. The material should be mainly sound and animation, videos, photos; to be able to perform simple actions by pressing, arranging, pulling and others. Don't have a lot of text, as long texts bore students, especially those with attention deficit. In addition, the screen of the phone is small and will strain the eyes
- Students with SEN use mobile phones, both to diversify activities and mental activity, and to connect with teachers in an online environment. It is obviously difficult for them to get involved in e-learning, especially without the support of their parents and without the active

interaction with the teacher. Work with these children should be individual and with their presence if possible. The combination of synchronous and asynchronous learning is the best option for them. It is necessary to create an electronic educational platform that is especially for children with SEN. Messenger, Viber and Skype can be used for additional communication, especially with parents

- While attending a video lesson, the student often surfs the web doing anything but following the explanation; or, if he deactivates the microphone and webcam, he may even be present but not, because he is engaged in something else. If it were possible, the student should be forced to turn on the webcam on certain online platforms, used at school level, in such a way as to ensure the effective presence and participation of students
- Assessing the quality of the educational process in a remote form is highly recommended using a laptop or tablet. Use of tablets is much more favourable than mobile phones, because the mobile phone is a personal device, used for communication, that the student can also use with learning applications, but they always end up using the same ones, because they (the learning applications) are not those applications that they look for when they use the mobile phone. With the tablet and the computer, it is different.

Technology ability to improve effectiveness of teaching

The situation about these questions they are, in some ways, quite similar:

- Someone has not done anything significant in the direction of improving the efficiency of teaching through the use of the telephone, because 70% of students studying in synchronous learning in an e-environment have a personal computer or tablet. The teacher working with SEN students uses working methodologies that are adapted and standardized. The online space provides other opportunities. Mobile phones are rarely used and only in cases when the student wants to show or do something of their own free will.
- Others are not acquainted with such because they are learning to.
- Exceptionally, there are Action Plan where schools take part. The schools have worked with students to implement cooperative learning, using tools and digital resources. The implementation of these digital tools have continued, through mentoring and the rest of the subjects, to be able to perform with resolution in the world of new technologies. Teachers are taking a seminar about digital tool about teaching/learning and the online assessments with the following objectives: 1) Improving the digital teaching skills 2) Implementing methodologic changes in teaching practice 3) Learning how to use tools, strategies and resources for the digital assesments 4) Discovering tools for the development of a



participative and distance assessment 5) Learning to search, choose, recycle, create and share digital resources.

The recommended platforms are:

- Office 365 and its associated stuff, Teams, One drive, Planner, etc.
- Google Classroom. This platform is used for communication in order to avoid mixing with several different types of communication channels and platforms. Here, information and education would be fragmented and lost their effectiveness. This system can also be used on mobile phones, but the work efficiency is significantly higher when working on laptops or PCs
- Dreamshaper

Interviewees give this indication. The main challenge for online learning is the discipline of the student and attracting his/her full attention. This is especially difficult when it comes to students with SEN. For example, the environment at home may be distracting and not allow the student to feel as comfortable as in the classroom. On the other hand, the family environment may have external stimuli that interfere with the full empathy of the student - other people, pets, background noises, too cold or warm, and others. When it comes to students with SEN who suffer from attention deficit, the learning environment is of great importance. In this regard, the learning software must be designed to engage the student's attention to the highest degree. At the same time, the software must allow the teacher to monitor the student's behaviour in real time, to sense his emotions and reactions. This will ensure an effective two-way learning process.

Topics of the educational offer suitable for teaching with mobile

About this question a lot of answers converge towards no specific topics but towards searching for information on the Internet on assigned questions, topics for an individual task, solved within the lesson. Other thinks that we can deal with all the subjects and education topics to improve the learning of new contents, reorganising concepts, using gaming to strengthen the knowledge, interacting with classmates and doing team works but underline:

- topics related with the management of images, languages, or experiments ...
- growth is essential, seasoned with a little imagination in reviewing established teaching methods, on the part of the teaching staff, as well as a burst of responsibility on the part of pupils in the conscious and responsible use of these devices. Perhaps it would be appropriate to include parallel paths in school programs (a bit like it is happening for civic education) through which both parties (teachers and learners) can grow and improve their skills and their ability to use consciously and responsible for new technologies

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein



- they prefer the use of computer for the performance they offer.

Someone indicates disciplines too:

- mainly the theoretical components, such as mathematics, English and French; all these subjects can benefit from the use of playful games or playful software. The practical components, as the name indicates, i.e. the short training more practical units (modules) should be face-to-face and in person, i.e. in class with explanation
- Natural sciences, mathematics, information technologies
- Music, drawing, biology, geography

Someone else points to a combination of disciplines with mode of teaching:

- audio recordings of literary works; videos of practical classes for professional disciplines; a film based on a literary work that is studied in class; musical works; photos for art classes; sports exercises for sports classes
- creation of common projects, which could be done by individuals or by people from different parts of the world using the web

How to present topics using mobile phone during lesson

- "Ordinary" activities on mobile: Video lessons, presentations, audio dictation, discussion of issues, sharing didactic materials, screen sharing, video tutorial, active worksheet, communication between students and teachers, use in answering questions, see Kahoot, shooting videos and sharing them, etc.
- Phone as a computer: searching for information, unknown terms, in foreign languages when searching for words, when searching for articles on a certain issue. It could also be used to provide access to electronic textbooks. Connecting mobile devices with projectors
- Short video demonstration: modern phones contain cameras. Teachers can make short videos demonstrating a certain process of making (creating, repairing, etc.) something and send it or integrate it into the lesson. It is very useful, especially in vocational schools. Then you can add it to a class blog or you can upload it to YouTube. Even explanation videos or with a practice example of an experiment, through the augmented reality (AR)
- Interview and voice recorder: Phones can be used as a voice recorder to collect audio evidence of an event or to present an interview or a kind of instructions, and so on.
- Broadcasting: According to the topic of the lesson – (whether medieval history or music of XIX or XX century or sport) - the teacher can be on the spot (a fortress, a concert hall or a theatre, a museum, a stadium) and switch on the camera of his phone and emit or broadcast whatever they have to do. For example – we are in Prague, in the National Theatre where Mozart had the first performance of his *Don Giovanni* (It is the same with the La Scala and

Verdi or Donizetti). It will be interesting to show the interior, some pictures of the performance, to interview some of the singers or to listen to the rehearsal. We think they will say “Yes” and will be glad

- Gaming: Teachers could include a presentation, an interactive online game or a game of Kahoot in their lesson. Gaming some contents make them easier to be understood by the students. Besides, this involves the correct use of the phone by the student during the lesson
- Recording: Shortly, on fieldwork, teachers (and students) can record images, video, sound, take notes, use GPS technology and mapping software to record information essential to their coursework
- Interactive lesson: make sure that the lesson can be interactive and in real-time. For example, especially in some subjects, it is possible to connect portable devices in a network and take advantage of adequate platforms / applications to be able to use a virtual whiteboard that does not need to be erased when it is filled but always provides new pages, all of which can be saved and keep as notes. This mode could also give the opportunity to interact directly on the blackboard with the students involved during an interrogation or verification, while showing the whole class the lesson and teaching by correcting any errors or in any case carrying out the assigned tasks
- Cooperative work for problem resolutions: a group of students that share a problem but not all of them have the same components and to reach a solution they should find all the possible solutions, share the information and negotiate the best for them
- No smartphones: students have to leave smartphones in a box when they enter the classroom and are not allowed to use them during the lesson.

Technologies at School and Life skills

We can distinguish the following situations:

- Life skills that can best be trained through ICT have been precisely identified. Among these mainly those that involve a creative approach, such as creativity and effective communication, which are reported by almost all respondents
- According to others, information technology helps to build and develop the following life skills: Self-awareness, Decision making, Stress management. This is achieved mostly with project assignments to students
- Still others believe that through the ITCs any life skills can be trained but especially interpersonal relationships, critical thinking, conflict resolutions
- Working with IT and various programs and applications can effectively train searching and obtaining information, acquiring ability to present the information obtained on a given topic,

individual work, communication with teachers through a selected platform. An important skill is searching for and retrieving information and learning to learn. But student can achieve self-regulation and sense of duty and organization of own time

- Everything can be worked out with the use of ICTs and it is essential to know how to make use of information. All life skills can be developed through digital technologies. Because digital technologies are our daily routine, they are part of everything we do. The use of ICT is so proper and intense that all these competences are enhanced, experienced and exercised, with ICT-supported teaching and learning model. The use of ICT can play an important role in any of them (life skills), particularly by taking advantage of the “affinity” that most students show for new technologies. In these pandemic times we have been going through, the importance of ICT in the development of the competences listed becomes even more pressing, as it allows us to “get closer”, in terms of communication, interpersonal relationships, empathy, etc., thus overpassing the obstacles the reality is imposing us in what concerns physical contact and conviviality
- General cognitive, everyday, social ICTs are part of the development of innovations in the education system. Through technology, children learn to use information in an optimal way, to find the most appropriate learning materials, to structure and assimilate them. ICT engages the attention of learners, keeps their interest and activity for a long time. An increase in the student’s self-esteem and sense of importance can be considered as a positive effect.
- Students are encouraged to actively participate in school life through the use of digital means - to create publications for the profile in the social network of the school; to participate in small social groups to make friends and communicate freely, etc. Using digital lessons that are accessible and attract all the student’s attention - through sound, animation, picture. This allows to develop all senses of the student.
- Children with SEN show confidence and more adaptability by learning on ICT, like their classmates. The child with SEN, living with communication limitations, who finds difficult to express himself or herself, uses technology willingly and actively. In this way he/she communicates on an equal footing with his/her peers. Through the new communication technologies the abilities of children with SEN are more visible than their disability.
- ICT can be the way to develop life skills, but the human relationship and work of the human relationship cannot be neglected.

Someone give indications about life skills that can be more easily developed through digital technologies:



- Stress management - the student can have fun through technology; to reduce stress by doing interesting things, practicing hobbies, etc.
- Emotional regulation - digital means allow to regulate emotions; such a role is played by various games, social networks, etc.
- Positive thinking - by sharing various good practices, good causes, good examples and interesting student stories
- Self-esteem - the role of social networks is very important; but care must be taken, because very often it is social networks that prevent some of the students from being themselves; sometimes they lose their identity and self-confidence
- Empathy - by sharing various good practices, good causes, good examples and interesting student stories
- Managing relationships - making friends through social networks
- Goal setting - participation in interest groups in social networks; joining other students with similar interests and ideas.

Mainly these skills are developed through digital means and the use of social media. Also, through the use of information sources, encyclopaedias, online tutorials, videos. The use of videos, articles, presentations, for example video about how students could manage and control their emotions.

Someone indicates that using ICT the object of interaction/communication is reached quickly. Common interests, activities and knowledge are shared. Information is selected, behavior in the online space is controlled. The most important skills trained using ICT would be the following:

- Integration into the workforce: Some students of vocational training start almost immediately their careers. Due to the importance of the ITCs in the market is crucial the correct use of them.
- Digital literacy: All our students believe that they know how to use technologies as they were part of their world since they were born. However, we have observed that the use of them is not the correct one in the majority of the cases; therefore, the schools must work on the correct use of the ITCs.
- Use and control of Social Networks: Doubtlessly, one of the most worrying topics of our current society. From the Education centers, proving the correct use of this new line of communication can avoid problems in the current deep distortion of personal relationships.
- Education on intellectual property: One of the pending topics of the current society is the respect for the intellectual property that is even more imperative regarding the use of new technologies and the easy access of the piracy.

Among the experiences reported:

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein

- “History of a lifesaver”. This activity consisted on the development of research work in groups about the History character after who our schools was named. Afterwards, the students developed a stop-motion, drawn by them and from there; a video was released where his life story was told. This task developed creativity and group team work (tolerance, team work skills, creativity, negotiation, leadership, emotional intelligence... were all involved)
- Making a ‘mindminter’ in which, after observing a masterpiece, the students are asked to write down the feelings that image aroused on them. There are several skills coming up on an activity like this and students love it and, without realizing it, they are being stimulated: creativity, critical thinking, communication, empathy, control of emotions, interpretation of their own emotions, among others
- The “Perfect Alliance”, a project in which team works on life skills with the students. But this activity does not develop these skills with the use of ICT, because the training of teachers of the ICT areas is still very archaic and we are in a process of constant updating. *“I fully believe in the creation of a gamification process for the development of the life skills, which should be followed in the student at the beginning of school, at their childhood, not only at secondary school, and I think we are very late to start stimulating these skills.”*

Technologies impact on student’s ability to plan and self-regulate learning process

Most of the interviewees think that technologies (and mobile technologies) pushed students the ability to plan and self-regulate their own learning process. The student has learnt the use of tools as Google Calendar to get connected to the online sessions from home. Besides, the use of the platform Virtual Classroom allows them to have their weekly tasks more organized. Moreover, the feedback from their teachers is direct, which helps. Even in case of students that have little autonomy, they are more enthusiastic and more independent, managing to structure and plan their learning using ICT.

But effectiveness of this use, it depends on:

- the age of the students and their moral and behavioral qualities
- in the case of pupils who work stably in school reliably and efficiently, the use of technology has brought about a certain shift. In the case of pupils with poorer academic results or poor support from legal guardians, the effect is almost non-existent, in some cases these pupils get lost in teaching
- the combination of agile tools with a pedagogical work

At the same time, there are some important considerations:

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein

- It is difficult to achieve a process of planning and self-regulation in the new pandemic conditions, especially for students with SEN. For children with autism spectrum disorder, any event that is unusual for them can become a huge challenge. Replacing the school day with the computer at home causes disturbances and changes that are difficult to switch. The creation of new training rules should be communicated to them repeatedly and circumstantially in order to be accepted and implemented without tension and resistance. Through technology, an alternative structure can be provided to follow with the support of professionals and the family.
- The process of education in some school runs synchronously in an electronic environment, which means that the weekly schedule is followed in the form of face-to-face training, in practice - classes start at 8.00 am, students and teachers are in front of the devices and conduct classes for the day. In the afternoon they have time for self-preparation. With this organization of learning time, students do not have significant freedom to self-regulate the learning process. The freedom for self-regulation of the learning process is when assigning project activities to students. In school, this is done in almost all subjects once a month and is effective for motivated students. Unfortunately, in some school, only the minority of students are motivated to learn. The majority of the students tend to perform specific tasks; they prefer the learning process to be led by the teacher and at the end of the school day to end their commitment to the school
- Compelling situations coexist: during pandemic situation some schools use a model that combines synchronous and asynchronous training, and for each asynchronous hour there must be evidence of learning, for example, the delivery of a content that will be equivalent to that hour of individual work. In this area some students ended up achieving better results online, when in person they had worse results, but also have had the opposite.
- Some students have and are adapting to new technologies trying to exploit them to build shortcuts to study rather than to integrate their skills and improve their academic performance and their acquisition of skills and competences. Obviously, in their journey they are inevitably forced to improve their digital skills, even if in the probably least profitable and most dangerous way.

Effects of mobile phones (and tablets) in classroom climate and in teaching activities

The effects of the spread of mobile phones and tablets in teaching and in the classroom climate are generally positive even if there are also strongly conflicting opinions among the interviewees:

- effect is good when used in a controlled and clearly set rules. Digital technologies are changing education. Teachers and students are increasingly using them for learning

purposes. They allow quick and easy entering in the educational cloud, and use of web-based resources to help students and teachers. Interest and concentration increase. So when the use of the telephone is allowed and encouraged by the teacher to help the learning process, then the telephone is an indispensable learning tool. Students feel comfortable in this environment and even those students who are not usually active become active participants in the learning process. This is one of the advantages of using the phone in the learning process. But this use must be controlled and managed by the teacher. In this regard, it is necessary first for teachers to acquire better digital skills for the use of telephones for educational purposes as a didactic and teaching tool. This is to avoid that the effect of using mobile phones is reducing students' discipline and attention to the learning process. Each student writes in his personal social profile, shares, likes, comments. The attention to training is completely lost.

- The use of equipment such as smartphones, tablets or personal computers has proven to be very enriching for the development of classroom activities, making them more attractive to students. The students' level of attention will always be related to the interest and dynamics that can be given to the class itself.
- The practice of using telephones in the learning process is not common. A suitable lesson for the use of telephones is foreign language teaching, where students look for appropriate materials to translate and share with others; also, telephones are used in art classes where students search and analyse. But in some cases, the use of mobile phones brings students problems in relationships - slander, illegal photography, etc.
- In principle, the use of mobile phones in the classroom is not allowed. In some classes, however, teachers allow the use of mobile phones to encourage students to seek up-to-date information on a specific subject or to prepare a short presentation. In these cases, some students first enter their personal profiles on social networks; write comments; like or share likes. This distracts them from the task and takes time to complete it. Of course, there are students who have developed digital skills and are not distracted by personal profiles on social networks, but concentrate on the task set by the teacher. In order for all students to be able to use their mobile phones freely for educational purposes during the learning process, it is necessary to promote digital literacy.
- In the real classroom, students are not allowed to use their phones during the lesson because they start using their mobiles for non-school-related activities – e.g. playing games, chatting, communicating with other students during their learning process, etc. Very rare they can use phones during lessons to aid their learning – e.g. to search for information on the Internet but only to some small extent.



- Less mutual personal communication between students, isolation of some students, deepening of introverted nature, inability to solve given problems in person, false bravery (easier to write than to say in person).
- Mobile phones are worse; in relationships with students the sending of messages to each other is quite frequent; most of the problems we have in relation to “disciplinary processes” are the result of communication on social networks and the sending of not proper messages. So mobile phones are negative in the teaching activity, in the classroom context. It can be interesting in the home context, if you are working from home. The level of attention required in the classroom is lost with the mobile phone; I think students lose a lot of attention with the mobile phone and so for the attentional process I don’t see it as beneficial.
- If the smartphone had already become an extension of our body, now it is, in effect, an organ. Even in the classroom, many students never separate from their mobile phones and use them continuously during the lesson, often chatting with each other via social networks, thus breaking down the threshold of attention and limiting the active and productive participation in the lesson of the teacher, who too often he finds himself as if he were talking to himself alone for hours, as in a place where everyone talks to each other about something else.



SEN AND DIDACTIC

Causes of social disadvantage of SEN students

Lot of answers defines SEN related to lack of education of parents, unemployment in the family, lack of control and low monthly incomes, dependence on social benefits, this is the most frequent indication. Low educational status of families, lack of parental control, and motivation to learn. Poverty - unemployed parents or they are employed just for a season. In most of these families, education is not a value. Similarly, students with different mother tongue, different cultural environment.

Certainly, there are also indications that lead the disadvantage to certain diseases - physical and/or mental. The disadvantage results from the deficits of these children, according to the disease. Or a low level of self-knowledge regarding their mental health, which is added to family without a strong structure.

More generally, students with SEN are the result of a kind of global phenomenon: low education in the family, low expectations for the future, job insecurity; the children end up reproducing this.

Life skills “most important” for students with SEN

Some believe that all life skills could be considered as targets on which to intervene to improve active and conscious voluntary participation in teaching. However, the opinions expressed contemplate the following:

- Two skills are considered fundamental: interpersonal relationships and stress management, as they affect social discomfort and, consequently, school dropout. Furthermore, these skills end up producing effects, albeit with different degrees of incidence, on all other life skills. Children with social discomfort can suffer from the inability to relate to others and it would therefore be essential to be able to help them develop the skills necessary to improve this competence and more (also effective communication, self-awareness, empathy and management of emotions, as well as, to a lesser extent, the critical spirit). The other fundamental and more difficult skill to deal with is that of stress management and all the other skills that are linked to this ability (for example that of “decision making”, “problem solving”, creativity and critical spirit). This factor can bring out phenomena of frustration that can lead children to develop a sense of intolerance towards school and, in the most serious cases, even to drop out. Helping children to develop the ability to better cope with critical moments can be an important strategy, in some cases decisive, to encourage school participation and reduce the phenomenon of abandonment

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein

- Competences about effective communication and interpersonal relations. Promoting the importance of collaborative work and the spirit of teamwork as decisive factors for everyone's success seem to be core values to be instilled in students. Measures such as encouraging group work, joint projects, etc.
- Students are motivated and gain confidence when they have created a real product. This is how skills are built, such as creativity, critical spirit, problem-solving, making decisions. Vocational education helps to acquire these skills as students learn and work; in their training, they create a product, it can be a project, but a product that is realized in practice; cases are solved and opportunities are chosen; work in a team
- Emotional intelligence through extracurricular and non-formal forms of learning. So self-awareness, communication and relationship with other people, stress management
- Improve self-esteem and learning skills as generally these skills affect not only school failure but also other life areas.

Use of mobile devices in teaching and motivation to study

There are different opinions about this topic:

- The use of mobile phones for school purposes is a very innovative idea. This will allow students to study in a pleasant and familiar environment. This will reduce the early dropout of students from school, because students will have the opportunity to study remotely, even when they are not at home. That is, students will be constantly connected to the learning environment through mobile phones.
- It's possible because in this way the student faces less competition, and comparison with the other students
- They can be quite useful now for the use of very interesting applications such as Kahoot, mentimeter, different online pedagogical games, etc, which the students usually like using, but only for this.
- Motivation increases, but not for everyone, because many of these children are without basic digital competencies, and if they can't this or that they are not interested. Even if everyone can and is interested in learning by phone, there is no way to eliminate all the threats of early school leaving, because in our country the main reasons are socio-economic.
- In students with problems of social hardship, the use of mobile / tablet in teaching on the one hand has fostered greater motivation to study, associating the device with which they call or send messages to a tool with which they can also study; on the other hand, this opportunity has led, those who are shy and not very participatory, to increase their shyness, and the lack of collaboration in some cases has been strengthened.

- The use or access to any device is not the guarantee of motivation to study, as this fact will depend on other already mentioned facts as: their own studying habits, the importance that their families give to their studies, their parent's availability to care for them, parent's educative strategies ... Regarding the use of the phone, the ideal option would be that they could use another device to get connected and deliver their tasks (tablet or computer as their size is bigger and have more functions). Before the lockdown, there was a tendency of the students dependence to the phone and social networks, after the lockdown and with the implementation of the online sessions, their dependence is deeper and is affecting a higher number of students. Therefore, the negative consequences have also increased (lack of attention and concentration, learning difficulties, inadequate studying routines and rest, family problems, bullying, among others).
- In case of hardship related to dyslexia or writing the use of technologies could help and motivate students at their school homework.
- It can have a small effect, other factors are more significant.
- Mobile phone is not the solution. Teaching using mobile phones couldn't help to resolve possible early school leaving.
- It depends on the character of the boy and the type of problem. Some students with special educational needs have benefited from the use of information technology, thus promoting their learning and skills. However, there are many cases of children for whom the use of technologies has limited the commitment and desire to keep up with the programs and educational objectives. This trend has led in rare cases to an abandonment of school participation, also thanks to the pandemic and its psychological implications on children, and therefore the technologies and above all the way in which they are used are leading to much more distancing than participation in school life.
- Mobile phone is a distraction factor, it could be used only if you don't have computer in the classroom.

Use of mobile devices to limit the damage due to students' social problems

Schools have no program or experiences tested to help students with social problems using mobile devices. Actually, schools:

- are using mobile phone only as an aid in teaching
- lend the electronic devices to the students, also aimed to reduce potential damage resulting from any economic inequalities that may exist
- realised some talks to the different groups and levels driven by the Local Police of and carried by the mentor policeperson destined to the school or by experts and interventions by the



- Orientation Department. In these talks, the following contents have been pursued: The proper use of phone devices and social networks; Problems and danger derivate from the inadequate use of mobile phones and social networks; Legal responsibility to the minors in the image and video diffusion with inadequate content; Ciber harassment; Net security
- give lessons in which they explain how to use digital platforms and provide simple but effective indications on how to follow and interact during distance learning, illustrating step by step what to do both to connect and where and how to view the tasks, grades, communications and the sending of documents and requested deliveries
 - adopt Learning Units that are increasingly current, engaging and interactive, in an attempt to involve students in teaching activities and to make study more enjoyable and less tiring.
- All aimed at encouraging the participation and attendance of the school by students.

Use of mobile devices to develop life skills

In many schools there are not experience about how to use mobile phone to develop life skills in students.

In other cases, have been indicated what skills are trained through mobile device: creativity, effective communication, interpersonal communication skills, self-awareness, critical spirit, making decisions. Smartphone is used to manage social networks, group conversations and games, so it's possible improving communication skills.

The experiences to develop life skills in students are seeing how students are able to develop greater autonomy, doing personal or group work, and interacting with less anxiety, managing stress in a better and resolute way.

In some case, the interviewees also indicated competences other than life skills such as learning and time management, searching for and obtaining the necessary information for education and fulfilment of assigned tasks.



CONCLUSIONS

The survey carried out through the interviews aimed to have feedback on numerous aspects related to the 4G project.

The interviewees, in fact, provided their point of view on the use of technologies in teaching and also with specific reference to the possible uses of devices such as mobile phones and tablets. Obviously the issue is quite "hot" due to the Covid emergency which, in the last year, has increased exponentially the use of technologies in general and mobile phones in particular in teaching, often, however, in an approximate manner. In this regard, the complaints are that the transition to an intensive use of technology caused by the lockdown and restrictions on face-to-face teaching has not been accompanied by a training of teachers and students in using technologies and that there has not been a functional methodological approach to a conscious and targeted use of these technologies.

The use of technologies and mobile phones in particular, in the didactic field, have been associated with various themes, all those included in 4G Project, namely:

- a. the relationship between technologies and learning, also with regard to students with special needs
- b. the identification of the life skills deemed most appropriate to tackle the phenomenon of early school leaving and the learning possibilities of the same through teaching that uses technologies.

With respect to the first point a), the conclusions that emerged lead us to affirm that:

- The preferred and cited tools are those that during the pandemic have generally been of support to knowledge sharing in many sectors. We are talking about Teams, Gsuite and all the platforms that have connected people with the aim of sharing documents, presentations, etc. However, these applications are not always fully usable through mobile technologies, for issues related to functionality but also to the size of the screen and so on. Therefore, the use of mobile technologies is generally appreciated for teaching but must also be managed through adequate training for teaching staff. While the student's familiarity with the instrument is important, which makes it more attractive; on the other hand, the student is distracted especially if the telephone is used in the classroom. It is therefore suggested to use it for teaching, study, homework and exercises at home



- The topics that can be treated with the use of technologies are the most varied, but certainly what emerges is the indication of disciplines that can be transferred through the use of gamification techniques, always preceded by face-to-face teaching in classroom
- The modalities to be favored are really many: from interactive lessons, to cooperative work for solving problems, to short demonstration videos (particularly useful in vocational training schools), to the mere transfer of activities as managed in person (presentations, video lessons, etc.)
- Their effect (technologies) depends on the former knowledge about the practice of these; highly affecting in a different way if they are students with special needs or if their families are involved in their academic development.

Again with regard to this area of investigation, it emerges that children with SEN show confidence and more adaptability by learning on ICT, like their classmates. The child with SEN, living with communication limitations, who finds difficult to express himself or herself, uses technology willingly and actively. In this way he/she communicates on an equal footing with his/her peers. Through the new communication technologies the abilities of children with SEN are more visible than their disability.

With respect to point b), the interviewees believe that potentially all life skills can be transferred through the use of technologies, even those that can be used on mobile devices. The most popular life skills are creativity and interpersonal communication. For students with special needs stress management and all skills for interpersonal relationships, as they affect social discomfort and, consequently, school dropout.

More generally we can conclude that the main challenge for online learning is the discipline of the student and attracting his/her full attention. When it comes to students with SEN who suffer from attention deficit, the learning environment is of great importance. In this regard, the learning software must be designed to engage the student's attention to the highest degree. At the same time, the software must allow the teacher to monitor the student's behaviour in real time, to sense his emotions and reactions. This will ensure an effective two-way learning process.