







# STUDY ON THE INFORMATION AND COMMUNICATION TECHNOLOGIES SITUATION IN THE EDUCATIONAL INSTITUTIONS PARTICIPATING IN THE COMENIUS REGIO PROJECT PIRKANMAA (FINLAND)- SAGRA BAJA (SPAIN)

"ICT IN USE- EXCHANGING AND DEVELOPMENT OF WORKING PROTOCOLS TO IMPROVE THE USE OF ICT AT SCHOOLS AND THE LOCAL AREA IN OUR TWO REGIONS."

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ICT IN USE



CONNECTED TO ICT

Noelia Cervantes Muñoz Iván Fernández Canalejas Mariano Fernández Blázquez Jaime Peces Bernardo "To live, learn and work successfully in an increasingly complex, information-rich and knowledge-based society, students and teachers must use a digital technology effectively. Within a very solid education setting, the Information and Communication Technologies (ICT) can enable students to acquire the necessary abilities to become:

- capable information technology users;
- information seekers, analyzers and evaluators;
- able to solve problems and take decisions;
- creative and effective users of productivity tools;
- communicators, collaborators, publishers and producers; and
- informed, responsible and contributing citizens.

Thanks to the ongoing and effective use of the ICTs in educational processes, students have the opportunity to acquire important capabilities. The teacher is the person who plays the most important role to help the student to acquire those abilities. Besides, the teacher is the responsible person to design learning opportunities as well as the appropriate environment at the classroom that facilitates the students' of ICTs to learn and communicate. Consequently, it is critical that all classroom teachers are well prepared to offer these opportunities to the students..."

UNESCO. Competency Standards regarding ICTs for teachers. London, 2008.

Information and Communication Technologies have become players and actions of our daily life and economic activity. A great majority of Europeans uses nowadays new technologies with different aims and the youngest use them as an everyday practice. ICTs incorporation in education field is a clear reflection of these trends. Different researches on education have shown that ICTs use contributes to increase the motivation and incentive of students towards learning, due to the fact that ICTs for the students facilitate the personal and individualized learning. Likewise, the digital competency is considered today as an essential requirement of the basic competencies.

The European Commission also established that the digital competency has to be a priority educational objective for the next decade.

### INTRODUCTION

The study and report of results with regard to ICTs situation that we show below has been carried out within the European Project Comenius Regio "ICT IN USE- EXCHANGING AND DEVELOPMENT OF WORKING PROTOCOLS TO IMPROVE THE USE OF ICT AT SCHOOLS AND THE LOCAL AREA IN OUR TWO REGIONS." 2013-1-FI1-COM13-12845 developed between the regions of Pirkanmaa (Finland) and La Sagra Baja County Consortium, Toledo (Spain).

The aim of Comenius Regio associations is to promote the development of cooperation activities among local and regional authorities active in the education world in Europe and to contribute this way to improve their educational offer. They allow the collaboration of regional institutions, educational centers and other relevant actors regarding education to jointly work in common interest subjects. In our case, the participating institutions are the following:

### Finland:

- Akaa Town Council;
- Valkeakoski Town Council;
- ICT Department of Valkeakoski;
- Early Childhood and Elementary Education School of Viiala;
- Early Childhood and Elementary Education School of Roukon;
- Early Childhood and Elementary Education School of Pappilan;
- Secondary Education High School of Toijala;
- Upper Secondary Education High School of Akaan

### Spain:

- La Sagra Baja County Consortium;
- 2 Alameda de la Sagra Town Council;
- Parents' Association San Roque of Alameda de la Sagra;
- Teacher Training Regional Centre of Castille and La Mancha C.R.F.P.;
- Early Childhood and Elementary Education School (C.E.I.P.) Nuestra señora de la Asunción –Alameda de la Sagra;
- Early Childhood and Elementary Education School (C.E.I.P.) Nuestra Señora de la Salud –Yunclillos;
- Secondary Education High School (I.E.S.) San Blas—Añover de Tajo;
- Early Childhood and Elementary Education School (C.E.I.P.) Conde de Mayalde -- Añover de Tajo;
- Early Childhood and Elementary Education School (C.E.I.P.) Santa Marina Magán.

Among the proposed aims in our association project it was listed the objective to improve innovation and education quality around the ICTs in the participating institutions. This aim has been implemented through different actions and one of them has been the development of this study regarding the needs and problems linked to the ICTs in the educational institutions involved.

The most important goals of our study are the following:

- To develop a questionnaire for teachers with the contributions of the participating centers, identifying significant areas and dimensions in the ICTs evaluation at educational level;
- To apply such questionnaires in the two regions to get information intra-region and comparative studies among regions;
- To use the analysis structure of the questionnaire (areas and dimensions) as the starting point for the development of a common model of "ICT Incorporation Planning" in the educational centers;
- To use the achieved results after the application of the questionnaire with the aim to identify the strengths and weaknesses (areas subject to improvement) of our educational centers around ICTs. This reflection would be carried out at two levels: at a regional level at first, getting general conclusions and at a second stage, by every participating institution, in such a way that every center develops an "ICT Incorporation Planning" adapted to their particular reality.
- o Publish the results achieved as widely as possible, at the level of participating institutions in the project as well as for other institutions with competencies regarding education (Town Councils, Inspection Service, Regional Teacher Training Centers, etc.).

### PROCESS FOLLOWED IN THE STUDY DEVELOPMENT

The main steps followed in the implementation of the study have been the following:

# 1. Bibliographic review of ICT evaluation questionnaires at education level and ICT Plan models at schools.

For the development of the questionnaire, a work group was created which was composed of members of every participating institution in the Comenius Regio Project. At first, some documentation was gathered and selected to be used as the questionnaire basis. To that end, we began with the review of the existing ICT Plan at our institutions, of the analysis of documents that gave guidance about the development of those documents and the study of other ICT evaluation questionnaires at education level. Our intention was to generate a simple questionnaire, easily understandable by teachers and adapted to the ICT reality of our institutions. The problems that we found at this level were, on the one hand, the lack of guidelines or documents from the educational institutions about what a Center ICT Plan is and about its development and, on the other hand, the complexity and the distance with regard to our teacher reality of some evaluated questionnaires.

# 2. Identification and selection, from the work group members, of the areas, dimensions and indicators that would be part of the teacher questionnaire.

After the bibliographic review, the work group members selected and agreed the general areas to evaluate, which in general coincide with the areas of the reviewed documents although they change their number and grouping and the simplicity of the writing. Within every area, those dimensions that were common to our institutions and relevant in our daily work with ICTs were selected. After this, a set of evaluation indicators was drafted for every dimension and later we selected the ones that would be included in the questionnaires, taking into account some criteria, such as: relevance of the information got through the questionnaires, balance in the number of indicators per each dimension, duration in the questionnaire application, etc. from a very first moment, it was considered necessary to evaluate the most organizational part and ICT resources of the centers at institution level, and on the other hand, to know the ICT use and application reality at classroom level. These two views were necessary in order to get ICT real information at the schools. This resulted in the same questionnaire but applied in two parts and to different persons of the institutions.

# 3. Development of online questionnaires, planning of their application process and application to the selected samples.

To facilitate the application and analysis of the results, it was agreed to use the application google.doc to create questionnaires.

The teacher questionnaires were sent to the participants of the sample via e-mail with a brief description. The application of the questionnaire was made during the May of 2014.

The sections of the questionnaire regarding general organizational aspects, ICT documentation of the center, general organization and center projects were sent to the Direction Teams of the participating institutions in order to be jointly completed with the ICT Coordinator/-s of the center. The sections of the questionnaire regarding the ICT use at the classroom were sent to every member of the teaching staff of the participating educational institutions. This decision was taken after carrying out a pilot questionnaire application test and having checked that a high percentage of the teachers did not know some general organization aspects of the center regarding ICTs.

In order to get a larger sample, the Direction and Coordination Teams of the Regio Project of every educational center explained the aims of the study and the basic aspects of the questionnaire to the staff and they sent via e-mail the link to the questionnaire.

With respect to the Finnish region, the questionnaires were answered in May of 2014, when their delegation came to Spain. Since some representatives of every participating center came, the questionnaires could be filled in during the visit. It should be mentioned that in case of a Finnish school, the persona who was filling in the questionnaire had to repeat it once he/she came back to Finland due to the lack of knowledge of some general organizational aspects. This aspect has been taken into account when developing the data analysis and drawing conclusions.

### 4. Compilation of results and development of this report.

Once the results were obtained, the working group performed a descriptive analysis. The analysis was done at two levels: at the level of participating centers in the Comenius Regio Project of our region and a comparative study with the centers of the Finnish region. Later, the working group developed a group of conclusions that are shown in this report; conclusions that are likely the most useful part, but at the same time more subjective of the project that we have developed. These conclusions have been elaborated from the questionnaire's data, from the results of the exchanges of ICT coordinators that have been carried out in our Comenius Regio Project during the course 2013-14 and from our personal opinions about what the work with the ICTs is at the schools.

With regard to the analysis of results, a simple and general analysis has been done but it would be interesting to be provided with more means and time to analyze the answers based on the variables we gathered (sex, age, position, etc.).

As we mentioned at the beginning, one of the goals was that every institution could develop a subsequent analysis of the reality of their center based in the data obtained in the study. In order to carry out this task with certain guarantees, several excel sheets of answers were delivered to the institutions for them to do a second analysis and elaborate their own conclusions and improvement measures in the ICT incorporation in the teaching-learning processes.

We think that the data obtained at the level of our region can be generalized to the reality of other centers and they could be used by the educational institutions to improve the work with the ICTs at the educational centers.

The questionnaires applied with the results can be consulted on the **attached document**.

Under no circumstances, the aim of the study has been to develop tools or questionnaires statistically valid, but to obtain first-hand information of the main actors in the ICT implementation at the educational centers, with the last aim to implement actions that improve innovation and quality of education around ICTs.

### DATA ANALYSIS AND CONCLUSIONS

### **SECTION 1. ICT GENERAL PLANNING AT THE CENTER**

This section of the questionnaire came to analyze if, at the centers, there are documents that guide the work planning with the ICTs, from a general framework to concrete proposals and if there are evaluation mechanisms of the actions developed. This section was answered by the ICT Direction and Coordination Teams of the educational centers, filling in just a single questionnaire per center. 100% of the centers answered the questionnaire (5 in the Spanish region and 6 in the Finnish region).

- Only 20% (1 center out of the 5 that were analyzed) of the Spanish region had an ICT Plan to be used as a general framework for the ICT work. In contrast, this percentage was up to 83% (5 centers out of the 6 that were analyzed) in the Finnish region. At a center of the Spanish region, there were even doubts about what an ICT Plan meant and, therefore, whether there was one at the center.
- We highlight on the data that, despite not having a general working framework (ICT Plan) in the most of the Spanish institutions, 100% of these institutions plan annual actions about the work with the ICTs in the annual general programming of the center. With regard to the Finnish region, 67% (4 out of 6) annually planned specific actions about ICTs.
- Concerning the question about the existence of written rules on the center documents about the use and maintenance of the digital resources (by the students and teachers), 100% of the educational centers of our region had such rules, against the 83% of the Finnish region (5 out of 6).
- The **Center ICT Plan and/or annual actions evaluation** planned on the annual general programming of the center, is done in 80% of the centers of our region (4 out of 5). In the Finnish region, only 17% carry it out (1 out of 6).

### **CONCLUSIONS**

• It is remarkable that a very important competency for the futures of our students (digital competency development) and a reality (digital and information society) that involves deep methodological and curriculum changes for teachers does not have a working framework shared by all the members of the center and it is neither planned nor written down. In the bibliography section (1) it is highlighted, among others, as essential conditions for the effective ICT use in learning processes the "shared view"

<sup>&</sup>lt;sup>1</sup> ISTE® (International Society for Technology in Education. 2008. *NETS for Teachers: National Educational Technology Standards for Teachers*. Available at: http://www.iste.org

and the "planning in implementation". The educational administrations need to generate urgently help document and a common framework for the elaboration of these ICT Plans of the educational centers and these documents must be developed by the school staff. These plans should be done with a long-term view and it should be necessary to annually develop specific actions shared by all the teachers and for the whole center, aimed to achieve the goals within the suggested period. To this respect, we should mention that the Finnish region has these documents, developed by higher educational institutions (<a href="https://peda.net/hankkeet/criiu/matherials">https://peda.net/hankkeet/criiu/matherials</a>).

- It is evident that on those aspects that generate the greatest problems (real or potential), such as all about rules regarding use and maintenance of digital resources, there have been many efforts to draw some rules or criteria clear and defined on the documents of the center. Even though, we have observed, during the visits to the centers and the working group considerations, that these rules are very basic and present many omissions and it is necessary to develop a deeper work at the educational centers regarding this aspects (privacy, safety, data protection, etc.). We should develop and specify at most the rules with respect to ICT use provided that in many cases there may be legal and/or criminal repercussions.
- Regarding the existence of evaluation processes of the actions developed with the ICTs, we believe that in the educational centers of our region there is a very guaranteed evaluation methodology of all center actions that are planned in the annual general programming, what guarantees their reflection and valuation. The depth level of this evaluation or the subsequent planning of improvement proposals is difficult to determine. In any case, we think that this evaluation should be done in a more structured way using normalized questionnaires (based on the Center ICT Plan) or other type of methodology and, above all, they should lead to improvement proposals to be incorporated for the following year.

### SECTION 2. COORDINATOR/CENTER ICT COMMISSION

This section of the questionnaire tries to analyze the existence, composition, organization and functions of the ICT Commission at the centers. This section was answered by the ICT Direction and Coordination Teams filling in a single questionnaire per center. The questionnaire was answered by 100% of the centers (5 in the Spanish region and 6 in the Finnish region).

- In the Spanish region, 60% (3 out of 5) of the centers have an **ICT coordinator** and that means just a person responsible, against 40% (2 out of 5) that have a team of some persons implied in the ICT organization work at the center. In the centers of Finland, 50% (3 out of 6) have an ICT team, 33% (2 out of 6) have an ICT coordinator and 17% (1 out of 6) do not have any person responsible for the ICTs at the center.
- This commission or responsible part has an **assigned time for the development** of their functions in all the centers of our region, but mostly (80%) it is considered to be not enough time. In Finland, together with the previous question, there is a center that, since it has no ICT responsible, does not dedicate any time for this task. But at the other 5 centers, 60% (3 out of 5) also consider that the commitment time is not enough.

- With regard to the **training level that these ICT responsible persons have**, at the surveyed institutions in Spain, 60% consider it to be appropriate and enough (3 out of 5) and in Finland, 50% (3 out of 6).
- With regard to the **functions developed by these commissions or coordinators**, in both regions, a great variety of functions is developed. In our region, the functions that take precedence are the technical, maintenance and training ones and in the Finish region, the ones that take precedence are the organizational functions.
- With regard to the support by the Direction Teams of the educational centers with the ICT work, 100% of the Spanish centers have this support and only 50% of the Finish centers.

### CONCLUSIONS

- In our region, the ICT coordinator figure has been combined with other functions with the last educational reform. Even we agree that in future this figure could be not necessary if we get a basic training level and an appropriate methodological consensus at the staff meetings. Nowadays, it is necessary to have qualified persons that manage and handle this ICT incorporation process in the teaching-learning process. Given that this change of ICT incorporation in the centers is very deep and complex, we believe that a group of persons would lead the change better than only one person and, of course, it would be necessary to have some stability or duration in the position of these persons and the implication of the Direction Team members in this commission or group.
- Regarding formal aspects of this ICT commission or responsible, we would like to
  encourage the educational administration to offer a basic and common training for
  these responsible persons and guarantee an appropriate dedication time for their
  functions. In case of not having this support, and always within their pedagogical
  and organizational autonomy, the centers should take their own decisions
  regarding these aspects to guarantee the development of the Center ICT plan.
- With regard to the functions developed by this coordinator or commission, we think
  that these functions should go beyond those merely technical functions, focusing to
  invigorate the ICT use at the center.
- An element that guarantees, to a large extent, the set-up, development, continuity and success of the projects in a center is the support and participation of the Direction Teams in these tasks. With regard to the ICT work, we think, based on the obtained data and the exchanges carried out, that in our region, the Direction Teams are implied in the ICT work; on the contrary, it should be necessary to analyze the obtained answers in this item in the Finish region.

# SECTION 3. ICT RESOURCES OF THE EDUCATIONAL CENTER. NUMBER, CONDITION, ORGANIZATION AND COORDINATION

The aim of this section of the questionnaire was to analyze the available ICT resources and infrastructures, their condition, investment, maintenance, safety and the basic organization/management at the center level of those resources or infrastructures. Given the existence of specific programs and infrastructures in each participating region in the Comenius Regio, some data are hardly comparable. This section was answered by the Direction Teams and ICT Coordinators of the educational centers filling in just one questionnaire per center. The questionnaire was answered by 100% of the centers (5 in the Spanish region and 6 in the Finish region).

- Regarding the program and infrastructure "Althia", we have obtained the following data: In 100% of the centers, such ICT infrastructure is operational. 80% of the educational centers (4 out of 5) consider that the computers work appropriately and the computer-student average ratio is 2 students per computer. In the Finish region, there are computer rooms in 83% of the centers (5 out of 6) and they work correctly in 67% of the cases (4 centers out of 6). The ration is very similar to our region.
- With regard to the "Teacher's Computers", we gathered the following data: in 80% (4 out of 5) of the centers, all the teachers have a computer for each teacher and in 60% of the centers (3 out of 5), the computers work correctly. In Finland, there are computers with accessory equipment in all the classrooms (it is not delivered to the teachers) and in 100% of the cases, it is assessed that they work correctly.
- With regard to the program and infrastructure "Escuela 2.0", we gather the following data: 100% of the centers of our region have the basic elements of the program (cupboards, projectors, interactive digital whiteboard and computers) but in 80% of the centers (4 out of 5) the computers do not work appropriately. Regarding the computer-student average ratio is 1.5 students per computer. This program is not similar in Finland. Only in two centers of this region (33%), the students had equipment and the assessment about their functioning was not positive in any of them.
- Regarding the equipment "Kindergarten Education Computer Corner", 100% of the centers with such stage (4 centers, due to the other center is a High School) had computers in every classroom, but in 50% of the centers, the computers do not work appropriately (2 out of 4). In the Finish region, the structure and objectives of the Kindergarten Education are different and only in 17% of the centers (1 out of 6), the classrooms have computers and they work correctly.
- With regard to the provision of Interactive Digital Whiteboards, the variation in the centers of our region is wide. There are centers with 25% of the classrooms with this digital resource and there are centers with interactive digital whiteboards in all their classrooms. On average, in the 48% of the classrooms of the participating centers, we can find this digital resource. In the Finish region, the variations among centers are also wide and the percentage of classrooms with interactive digital whiteboards is lower than in the surveyed centers of our region.
- All the centers have WIFI connection for the students and teachers to work but 100% of the centers declare that the connectivity is not appropriate. In the surveyed centers in Finland, their connection is assessed to be appropriate in 100% of the cases.
- A specific ICT resource, such as "School Radio", is found in 60% of the centers (3 out of 5) and it works appropriately in 100% of the centers that have it. This resource is less present in the Finish region, 33% (2 out of 6), but it works appropriately in all the centers that have it.
- Regarding the **investments in ICT** resources section, 60% (3 out of 5) of the centers have a budget item to buy new material or ICT infrastructures and 80% of these centers that have a budget item for that aim considers that the item is insufficient. On the other hand, 100%, all the centers, consider that the budget given by the administration to the centers for the ICTs or the provision of ICT resources given directly to the centers is insufficient. Similarly to our region, 67% (4 out of 6) of the surveyed centers in Finland have a budget item, but only 50% of the ones that have such budget item, state that the item is not enough. The opinion about the economic support of the administration is similar to our region. 80% of the centers state that the support is inadequate.

- Regarding safety, 80% of the centers (4 out of 5) consider that their equipment does not have an appropriate antivirus and only in 60% of the institutions (3 out of 5) there are teacher and student data protection measures. With regard to the existence of licenses of the programs used by the center, only 20% (1 out of 5) have the appropriate licenses. In this section, the centers of the Finish region confirm better statistics due to the fact that 100% of the centers state that their equipment have suitable antivirus, 83% (5 out of 6) have developed data protection measures and the 50% of the institutions have relevant software licenses.
- Regarding the ICT resources maintenance, in 60% of the centers (3 out of 5), there is a person of the staff in charge of this task. With regard to the opinion about the administration official technical service of the programs and equipment delivered, 100% of the centers declare it to be inadequate. In the Finish region, 100% of the centers declare that the technical service of the administration is correct and in 67% (4 out of 6), there is a person of the staff also in charge of the maintenance.
- The software-programs of the mentioned equipment (Escuela 2.0, Althia, etc.) are considered not to be appropriate in 80% of the centers (4 out of 5) and the general valuation of the existing software is insufficient and inadequate in 100% of the institutions. In this section, the centers of the Finish region obtain better statistics, because 50% of the educational centers consider that they have appropriate software.
- Regarding the general organization of the center ICT resources, 80% of the centers
  of our region (4 out of 5) have some system to manage the availability of the
  equipment and in a more advanced organization level, 60% of the centers (3 out of 5)
  have written criteria or regulations that guarantee that all students use the ICTs to
  the same extent.

### **CONCLUSIONS**

- The Althia infrastructure is operational in most of the educational centers and due to the reduction in the economic provision and the scarce possibility to renew or acquire equipment for other programs since they would mean a high financial cost (Escuela 2.0, for instance), we suggest to renew, introduce more equipment and to have the classrooms ready and available because they will allow to guarantee the equal access to ICTs to all students of the centers in the coming years. We are aware of new work focuses around ICTs (for instance, the model "BYOD-Bring Your Own Device") but, as we will mention later, the ICT resources figures of our students at their homes can act as a barrier for the set-up of these new work models.
- Regarding the teacher's computers, they have become obsolete and in few years, the centers will have to take decisions regarding this subject, very conditioned by the budget of every center. A very good option would be to make a previous consideration about the management model of the resources and an useful model could be the one of the Finish region, where the teachers have no computers but all the classrooms do have a computer (together with a projector and in some classrooms, there is an interactive digital whiteboard). This model cuts prices on the renovation of equipment and it can be developed with enough time not to block the management of the economic resources.
- A very close aspect to the previous section is the existence of an appropriate technical service. The different studies (<sup>2</sup>) state that a necessary measure for the

<sup>&</sup>lt;sup>2</sup> European Commission, 2011. *Key Data on Learning and Innovation Through ICT at School in Europe 2011*. Available at: <a href="http://eacea.ec.europa.eu/education/eurydice">http://eacea.ec.europa.eu/education/eurydice</a>

correct ICT incorporation in the schools is the existence of an adequate technical support. In the Finish region, they have an institution at the level of the County Consortium that is in charge of it, together with the support of the ICT Commission members that have knowledge regarding this subject. We think that the educational administration should offer appropriate technical support and at the same time train some member of the ICT Teams of the centers, in such a way that they could solve the basic and daily problems (they are the largest percentage) that may arise when working with the ICT. For this purpose, we insist once again on the need to be given for some time for commitment and continuity in relation to these persons.

- Regarding other equipment and programs and the investment sections, we suggest, given the current economic situation, to firstly plan a work model with the ICTs agreed by the staff and with long-term aims and after to take decisions where the purchase of resources prevails. We also suggest that this purchase guarantees the access of a greater number of students and in an equitable way (for instance, to give priority to the renewal of a classroom equipment in Kindergarten or a "school radio" rather than a personal computer of Escuela 2.0).
- The administration and the centers should guarantee a good WIFI connectivity at the whole school, since according to the data recorded in the study and in the exchange of ICT coordinators developed in our project Comenius Regio, this point is a constant complaint and an important brake to incorporate the ICTs in the classroom. To this respect, we can have the same criteria as in the previous section, because, at the center level, it is possible to incorporate some improvements (to hire a company to incorporate signal amplifiers, to reduce shaded areas, etc.) with an acceptable expense and improving considerably the general access to information, the attitude towards the ICTs of teachers and all programs could also benefit from this measure.
- With regard to safety and because of the legal and media implications involved in this
  point, we think it is necessary that the educational administration should propose
  common and compulsory regulations regarding the criteria to follow in all public
  centers to this respect and in case they do not comply with them, the center should
  plan this aspect urgently and as a priority in their ICT Plan.
- With respect to organization and access to the digital resources and learning experiences regarding ICTs, we think that we should give priority to the equitable access criteria. The existence in the ICT Plan of center agreements about this point will allow not to have difference (due to the training or attitudes of teachers or other reasons) with respect to the students and it will also allow that all of them can finish the education period with an adequate and common level in the digital competency.
- With respect to ICT resources families and students have at home, almost 95% of students from Finland have a computer at home and Internet connection in front of very variable percentages, but lower, in our region. As the most reliable data, we would like to mention that in a small survey carried out in a center of our region with students of 5<sup>th</sup> and 6<sup>th</sup> courses of Primary Education, we gathered that 75% of the students have a computer or tablet at home and 60% have Internet connection. We believe that, when developing different activities and projects (example mentioned "BYOD") at the centers, we should know first the digital resources of the family, to guarantee (with the resources of the center and town) an equitable access to ICTs and set out measures that reduce the differences derived from this social reality.

# SECTION 4. CURRICULUM DEVELOPMENT AND ICT INCORPORATION IN TEACHING AND LEARNING PROCESS

The aim of this questionnaire section was to analyze how the specific work with the ICTs is organized and developed inside the classroom, by the teachers as well as by the students. This section, as we have explained at the beginning of the report, was answered by its main actors. That means the teachers of the centers implied in our project Comenius Regio. In the Spanish region, the questionnaire was answered by 72 teachers, what represents 55% of the total of teachers of the participating centers in the study. With this information, we can confirm, without any doubt, that the sample was representative enough of the population that was the subject of the study. Regarding the Finish region and due to the application and information gathering conditions mentioned, twelve persons filled in the questionnaires causing a unique answer of every center for every item. All the centers were represented.

- Regarding the incorporation of digital competency indicators in the classroom programming, 77% of teachers of our region carry out this task in front of 67% of the teachers who were surveyed in the Finish centers. To this respect, we should clear that the evaluation systems are very different in both regions.
- With regard to the planning of specific activities to work the digital competency, 85% of the teachers of our centers carry out this work in the different areas they teach. In the Finish region, this percentage is 100% of the teachers.
- Regarding the ICT incorporation in homework, 65% of the teachers carry out this work. In Finland, the percentage is very similar, 67%.
- Regarding the qualification of average time that students work the ICTs and the time they work with the ICTs in the classroom, there is a significant difference among regions. In Finland, the percentage is 50% in the surveyed centers, whose students work 3 or more hours with the ICTs and in our region, the percentage is 10% of the students. There are no big differences regarding percentage (12% in our region and 17% in the Finish region) in the section of students who do not use ICTs at all in class.
- Regarding the time the ICTs are used at the basic level of projecting contents on the
  interactive digital whiteboards/digital whiteboards (interactive digital whiteboards
  or non-interactive digital whiteboards), there is a similar percentage of surveyed
  persons that state not to have that resource (approximately 14% of our region and
  17% in Finland) but, regarding the frequent use of this resource, 37% of the surveyed
  persons in our centers use this resource 3 hours or more a week, against 50% of the
  surveyed persons in Finland.
- Analyzing the Althia classroom use or the computer rooms, there is 33% of teachers
  of our region that state to never use this resource (we remind that in our region, all
  the centers have Althia rooms), situation that does not take place in Finland, because
  this percentage is 0%. The frequent use of this resource can be said to be 1 hour a
  week and 14% of our teachers and students use it every week, against 33% of the
  surveyed persons in Finland.
- Regarding the use of individual computers for the students, in the program Escuela 2.0 in Spain or similar in Finland, of the people surveyed that have these digital resources in our region, 50% do not use at any moment such equipment. In Finland, there is nobody that, having this resource, does not use it. With regard to the frequent use of this resource (3 hours or more a week), 17% of those surveyed persons that have these digital resources in our region often use it, but this percentage is higher in Finland, where it is 67% of the surveyed persons who have these digital resources.

- With respect to the school radio use, we should take into account that in the Finish region, it is a digital resource that is not much extended and, from this Comenius Regio project, they are incorporating such resource in their centers and that in our region, not all the centers have it. From the information gathered, 21% of teachers of our region that have the resource do not use it and approximately 38% of the teachers who have the resource do use it once a week or a month. The remaining 40% of the teachers use it quarterly or annually.
- Regarding the software **programs used by the students in the activities with the ICTs proposed by teachers**, in the two regions, there is some similarity regarding the data. The 4 programs mostly used are (in order): Word or similar (19% in our region and 11% in Finland), Internet browsers (19% in our region and 11% in Finland), PowerPoint or similar (15% in our region and 11% in Finland), and e-mail (11% in our region and 9% in Finland). There are no significant differences regarding the other used programs among the two regions (for instance, in image editors or collaborative work programs, such as Dropbox), except for the educational use of social networks, which is 0% in our region and 7% in the Finish region and, to a lesser extent, there is some difference regarding the use of Wikis and Moodle platforms.
- Regarding the educational aim in the ICT use in class, it is remarkable the similarity among our two regions. The main ICT uses in the classroom are the following: the teachers use ICTs with the aim to view or explain class contents (16% in our region and 10% in Finland); the ICTs are used for the students to look for information (14% in our region and 10% in Finland); as a learning strengthening way through educational games or specific educational programs (14% in our region and 8% in Finland), and for the students to present contents (9% in our region and 8% in Finland).

### **CONCLUSIONS**

It did not surprise us to check that a high percentage of surveyed mates incorporates specific digital competency indicators in their class programming and plans specific activities to work such competency, since in the exchange of ICT coordinators and through activities of the Comenius Regio project, we have seen a great deal of interest in this subject at the centers that are involved. But we have also seen that teachers have many doubts in this ICT incorporating process and that there are many differences among the teachers of the same center. Most of the doubts are about "what" we have to work for our students get an optimal level on this competency according to their age and, above all, "how" to incorporate the ICTs in the class work. That means how to carry out the methodological change which is so much spoken about. With respect to "what", there are many official documents of our community or different authors that clarify what the Digital Competency consists of. With respect to "how", things get complicated because there is no standardized and unique model that guarantees that we are doing thing appropriately. They are complex processes and we think that there is a lack of a common vision at center level about ICTs, their importance for students and their future, the pedagogical change that represents to work with them and, above all, other aspects; what makes us feel unsure and not work jointly as we wish. Therefore, we propose, as one of the many alternatives we can find, that every center has basic common criteria when working this competency. A first step may be to define these indicators in the centers (if it is possible, well sequenced according to school stages and levels) and later, to agree such indicators in their pedagogical documents and to incorporate them in one degree or another in the different areas, guaranteeing a "minimum" ICT use common to the whole center. This work proposal already allows them to begin to generate a common work model. Then, every teacher should plan specific activities in the areas to work the digital competency indicators and lastly, there should be an evaluation as it is done with other indicators of the content areas.

Regarding the previous consideration and paradoxically, seeing the importance "about the paper or programming documents" that we give to this competency, we have seen that in the data regarding the use time of the digital and work means with the ICTs, there is a very significant difference among regions. The appropriate use of the digital means in educational contexts and the development of the digital competency do not only depend on the availability of the ICT resources, but their real use (3). It is clear that, in our region, our students dedicate less hours to work with the ICTs (Althia, interactive digital whiteboard, computer of Escuela 2.0), we can recognize that the condition of our ICT resources is worse (although not a lower number of them), aspect that we have seen in our visits to the Finish educational centers, but this does not fully justify such big difference.

Where does the explanation to this difference lie? How is it possible that 12% do never use the ICTs? How is it possible that 33%, despite Althia room is operational as we have seen in the data, do never go there with the students? Are the educational regulations and the center agreements taken into account, if there is any? It is necessary that we think about this point at Comenius Regio Project level and at every center, because some of the essential conditions to use efficiently the ICTs in the learning processes are, among other, the following: the shared vision about education with ICT, the planning of the ICT implementation at the center, the equitable access of our students to the ICTs and the standardization of the ICT contents of our curriculum.

• Regarding the educational programs that are used or regarding what we do with ICTs, the similarity among regions is wide. In the reviewed bibliography, there are some theoretical models that propose different levels of progressive deepening on the ICT work. An example is the "Technological Maturity Model of the Educational Centers" generated by our Regional Teacher Training Center (CRFP). According to the same models and in a general way, having been this initial level exceeded, where the ICTs are simply used as a novel resource to keep on working with the same teacher methodology (for instance, to project some contents on the interactive digital whiteboard) or where the ICTs are focused on the specific learning of software-programs or on the digital literacy. Analyzing the obtained data, we state that we are taking steps towards larger methodological changes: ICT incorporation in collaborative or creative activities, ICT use on the evaluation of the students, ICT use on project-based works and production of contents by the students.

### SECTION 5. TRAINING, INNOVATION, COMMUNICATIONS AND CENTER ICT PROJECTS

This section of the questionnaire tries to analyze the participation in training courses and the teacher training level, mass media used by the center and the teachers with their colleagues and families, the use of other institutional programs and the existence of other center ICT projects. This section was answered by the teachers of the centers (72 questionnaires, 55% of the total number of teachers) involved in our Comenius Regio project. Regarding the

<sup>&</sup>lt;sup>3</sup> European Commission, 2011. *Key Data on Learning and Innovation Through ICT at School in Europe 2011*. Available at: <a href="http://eacea.ec.europa.eu/education/eurydice">http://eacea.ec.europa.eu/education/eurydice</a>

Finish region, there were 12 persons who filled in the questionnaires, but they gave a unique answer from each center for every item. All the centers were represented.

- Regarding the participation in ICT training activities last year, in our region, 46% of
  the surveyed teachers have not participated in any training activity, 21% in a training
  activity, 21% in 2 training activities and 11% in 3 or more training activities. In the
  centers of the Finish region, 100% of the surveyed teachers have participated in
  some training activity linked to the ICTs and 83% of this 100% have carried out 2-3
  training activities and 17% 3 or more.
- With regard to the evaluation made by the teachers about their ICT training, 72% of teachers of our region valued it as adequate and enough, very similar information of the teachers of the Finish region, where 67% also value their ICT training as adequate and enough.
- With regard to the mass media used among teachers of the educational centers, in our region, 43% use e-mail (17% of the teachers of the Finish region) and 25% program, such as WhatsApp. Only 16% use the official platform "Papás 2.0", against 83% of the Finish teachers that use an official platform similar to the one of our region, called "Wilma".
- With regard to the existence of webs or blogs in the educational institutions of both regions, 100%, in both regions, have them.
- With regard to the technological means that are used by the educational centers to communicate with families, only 32% of the surveyed teachers use the official platform "Papás 2.0", against 100% of the Finish teachers that use the official platform called "Wilma".
- An exclusive question of the questionnaire of our region was about the program "Delphos" and the result was that 87% of the surveyed teachers use it in their teaching work.

### **CONCLUSIONS**

- The ICT teacher training is a recurring subject in our centers. It is clear that we are not "digital natives" and that is going to cause more difficulties in the ICT incorporation in the classroom work. It is necessary for the teachers, at a personal level, and the educational centers, to plan training acts in such a way that a basic ICT level is guaranteed, not so much focused on "what" (programs or management of ICT resources), but on "how" (methodology) to incorporate the ICTs in our teaching practice. Therefore, we have the Regional Teacher Training Center (CRFP) and other training institutions. Linked to these resources, we sometimes forget that we have mates who are developing innovative experiences in the ICT field, in our centers or centers of our environment. A supplementary proposal is that the Training Coordinator proposes the exchange of innovative educational experiences among teachers of the center and even among teachers of centers of our area, as we attempted to carry out in our Comenius Regio with the exchange of ICT/Training Coordinators. It is a significant detail that 72% of the surveyed persons in our region value their ICT training as adequate, however 46% recognize not having carried out any training activity in ICT last year.
- With regard to the institutional platform use Papás 2.0, our centers should progress
  in their use for different teaching activities (internal communication, management
  of students, virtual classroom, etc.) and in the communication with families. There is
  a basic training need regarding this platform management by the teachers and

families and we encourage the centers to promote annual specific activities that allow them to improve their knowledge and management. Our Comenius Regio project will encourage its use with the "ICT Families School", aspect we would like to implement this course in the educational centers involved. We need to use platforms that offer us an institutional support and we should leave those ones that do not offer an adequate protection to teachers and families. The Finish region has a greater use tradition regarding its Wilma platform, at an internal center level as well as in their communication with families. One last comment regarding this aspect is to encourage the educational administration to offer a basic and compulsory training in these institutional programs (Papás 2.0 and Delphos).

- A detail to highlight is the existence of institutional webs in all our educational centers of both regions. While the characteristics and functions of this web differ considerably between the two regions, we think this percentage is far above the average of the other centers. We think these webs should be strengthened where possible, since they cause own identity signs, they develop a belonging and linking sense with the center in the educational community and they are an open window onto the reality of the center and classroom.
- Regarding other ICT projects, there was no information gathered to explain those
  other projects, what makes the analysis difficult. As we have seen in the exchange of
  ICT Coordinators, there are some innovative ICT projects at our centers (cinema as
  educational resource, entrepreneurship and ICT projects, virtual classrooms for the
  students, classified as "flipped classrooms", etc.). We will try to develop it more and
  more and independently in other documents that we are developing in our Comenius
  project.

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# ATTACHMENT QUESTIONNAIRES

# CENTER QUESTIONNAIRE SPANISH REGION

# 5 responses

View all responses

### Summary

### NOMBRE DEL CENTRO Y CÓDIGO

45000023 CEIP CONDE DE MAYALDE AÑOVER DE TAJO TOLEDO CÓDIGO CENTRO 45000230 CEIP SANTA MARINA. 45001349 CEIP NTRA SRA DE LA SALUD, 45004594 IES San Bias 45006049

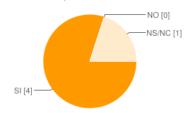
### **BLOQUE 1.PLANIFICACIÓN GENERAL DE LAS TIC EN EL CENTRO**

1.¿ Nuestro centro cuenta con un Plan TIC o un Plan que organiza y guía el trabajo con las nuevas tecnologías/TIC en el centro?



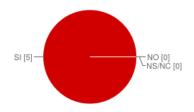
SI 1 20% NO 3 60% NS/NC 1 20%

2.¿ Nuestro centro planifica anualmente actuaciones sobre las nuevas tecnologías/TIC en la PGA?



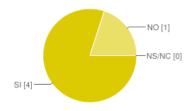
SI **4** 80% NO **0** 0% NS/NC **1** 20%

3. ¿En nuestras normas de centro (NCOF) tenemos criterios sobre el uso y correcto mantenimiento de los recursos digitales (Althia, miniportátiles, smartphones, tablets, etc.)?



SI **5** 100% NO **0** 0% NS/NC **0** 0%

4.¿Este Plan TIC y/o las actuaciones TIC de la PGA son evaluadas anualmente en la memoria y en otros procesos evaluativos de centro y se establecen propuestas de mejora para el curso siguiente?

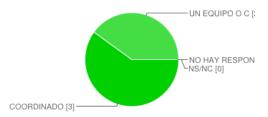


SI **4** 80% NO **1** 20% NS/NC **0** 0%

### BLOQUE 2. COORDINADOR/COMISIÓN TIC.

1. Indica el tipo de responsable que hay en tu centro :

### 23/5/2014



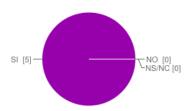
 UN COORDINADOR/A TIC
 3
 60%

 UN EQUIPO O COMISIÓN TIC FORMADO POR VARIAS PERSONAS
 2
 40%

 NO HAY RESPONSABLE/EQUIPO TIC
 0
 0%

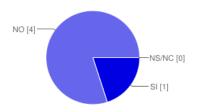
 NS/NC
 0
 0%

### 2. ¿El coordinador TIC/Equipo TIC de tu centro dispone semanalmente de tiempo para llevar a cabo sus funciones?



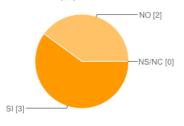
SI **5** 100% NO **0** 0% NS/NC **0** 0%

### 3¿Este tiempo de dedicación te parece suficiente?



SI 1 20% NO 4 80% NS/NC 0 0%

### 4.¿El coordinador/equipo TIC de tu centro tiene experiencia y formación suficiente en el campo de las TIC?



SI 3 60% NO 2 40% NS/NC 0 0%

### 5. Señala las tareas que desarrolla el coordinador/equipo TIC de tu centro (puedes marcar las que desees)



o Se dedica al mantenimiento de los recursos TIC del centro y si es necesario contacta con la persona o responsable del servicio técnico o Informa de los recursos de software del centro.

Dirige la instalación, configuración y desinstalación del software de finalidad curricular y vigila el correcto funcionamiento de los programas instalados

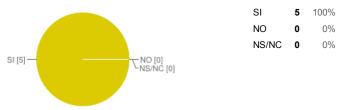
17%

3%

4 14%

o Elabora propuestas para la organización y gestión de los medios y recursos tecnológicos del centro	4	14%	,
o Asesora al profesorado sobre materiales curriculares en soportes multimedia, su utilización y estrategia de incorporación a la planificación didáctica	2	7%	,
o Realiza actividades de formación con el profesorado. (grupos de trabajo, seminarios, cursos o proyectos)	4	14%	,
o Ofrece información sobre actividades de formación de otras instituciones	2	7%	,
o Asesora al resto del profesorado sobre el uso y la utilización de las TIC.	4	14%	,
o Asesora al profesorado para integrar las Tecnologías de la Información y la Comunicación en las aulas.	1	3%	,
o Evalúa y supervisa la organización y gestión de los medios y recursos tecnológicos del centro	2	7%	,

### 6. ¿El Equipo Directivo de tu centro facilita la incorporación y acceso a las TIC?

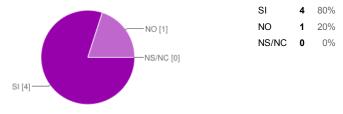


# BLOQUE 3. RECURSOS TIC DEL CENTRO EDUCATIVO. NÚMERO, ESTADO, ORGANIZACIÓN Y COORDINACIÓN

### 1. ALTHIA-¿En el centro hay un aula Althia/Informática con ordenadores?



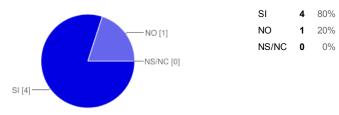
### 2. ALTHIA- ¿Los ordenadores del aula Althia/Informática funcionan adecuadamente?



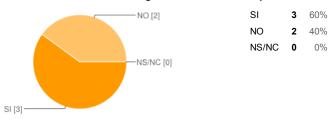
### 3. ALTHIA-Indica cuál es la ratio alumno/PC cuando acudís al aula Althia /Informática

1,5 ALUMNOS POR PC 2 ALUMNOS POR ORDENADOR 2 1 para cada 2 3-2/1

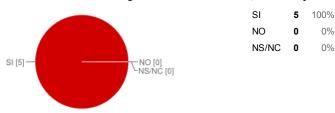
### 4. ORDENADORES PROFESORADO- ¿Todos los docentes disponen de un ordenador para uso educativo?



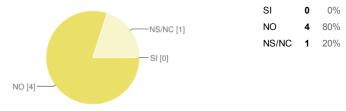
### 5. ORDENADORES PROFESORADO- ¿Los ordenadores del profesorado funcionan adecuadamente?



### 6. ORDENADORES ESCUELA 2.0 ¿Tenemos Ordenadores, armarios y PDI del Programa Escuela 2.0?



### 7. ORDENADORES ESCUELA 2.0- ¿Los ordenadores del Programa Escuela 2.0 funcionan adecuadamente?



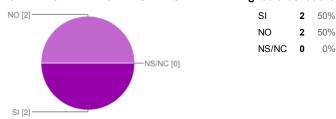
### 8.ORDENADORES ESCUELA 2.0. Indica cuál es la ratio alumno/Netbook Escuela 2.0.

2/1 1 ALUMNO/NETBOOK 1,5 NETBOOK/ALUMNO 1 para cada 1,5 alumnos

### 9.¿ Hay ordenadores en cada una de las clases de Educación Infantil para el "Rincón del Ordenador"?



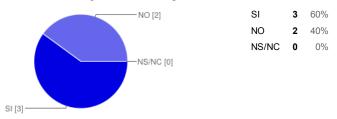
### 10. RINCON DEL ORDENADOR EDUCACIÓN INFANTIL . ¿Los ordenadores funcionan adecuadamente?



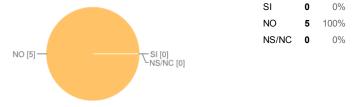
### 11. PIZARRAS DIGITALES - Indica cuál es el número de Pizarras Digitales en tu centro y el número de unidades que tenéis.

9 PIZARRAS Y 19 UNIDADES 3 PDI/9 UNIDADES 5-21 En todas las aulas 10 PIZARRAS 23 UNIDADES

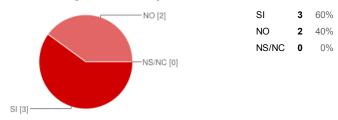
### 12.PIZARRAS DIGITALES- ¿Las Pizarras Digitales funcionan adecuadamente?



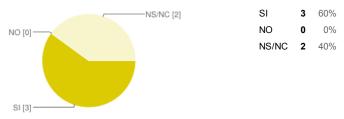
### 13. CONECTIVIDAD INTEGRAL - ¿El acceso a internet es suficiente para abastecer a todos los dispositivos informáticos?



### 14. RADIO ESCOLAR-¿En el centro hay Radio Escolar?



### 15. RADIO ESCOLAR -¿La Radio Escolar funciona adecuadamente?



# 16. OTROS RECURSOS TIC- Indica si hay más recursos TIC aparte de los analizados hasta el momento (tablets, smartphones, x-box, mini-consolas, PDA, etc.).

NO NO HAY MÁS RECURSOS TIC ADEMÁS DE LOS MENCIONADOS HASTA AHORA CÁMARA DE VÍDEO, MICRÓFONOS, MESA DE MEZCLAS, AUTOAMPLIFICADOR Y ALTAVOCES.

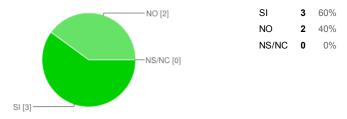
## 17. RECURSOS TIC DEL ALUMNADO- Indica aproximadamente el porcentaje de alumnos-as que tiene ordenador en casa para realizar diferentes tareas.

94% 35% 90% 75%

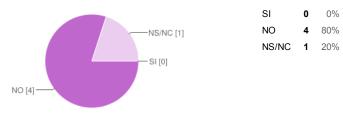
## 18. RECURSOS TIC DEL ALUMNADO-Indica aproximadamente el porcentaje de alumnos-as que tiene conexión a internet en casa para realizar diferentes tareas.

80% 70% 50% 45% 90%

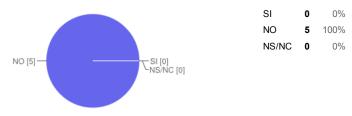
### 19. INVERSIÓN- ¿El centro dedica una partida presupuestaria a la compra de equipos y material TIC o a su renovación?



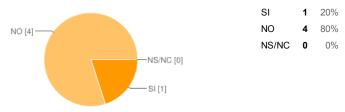
### 20. INVERSIÓN-¿Esta partida presupuestaria del centro es suficiente para las necesidades de centro?



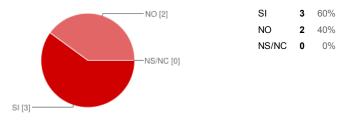
### 21. INVERSIÓN- ¿La dotación presupuestaria de la administración para las TIC o la dotación de equipos TIC es suficiente?



### 22. SEGURIDAD- ¿Los ordenadores/equipos de centro tienen antivirus adecuados?



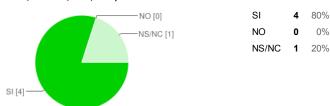
23. SEGURIDAD- ¿El centro ha desarrollado medidas de protección de datos del alumnado y el profesorado?



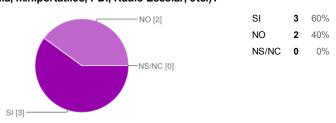
24. SEGURIDAD- ¿El centro dispone de las licencias oportunas de software, hardware para desarrollar las TIC en el centro?



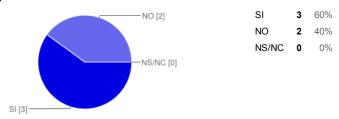
25. ORGANIZACIÓN ¿El profesorado dispone de un cuadrante de uso/organización y disponibilidad de portátiles, miniportátiles, tablets, PDI, etc.) ?



26. ORGANIZACIÓN-¿Existen unos criterios de centro de "uso mínimo" por parte de todo el profesorado de los recursos TIC (Althia, miniportátiles, PDI, Radio Escolar, etc.)?



27. MANTENIMIENTO- ¿Hay una persona/equipo que se encarga del mantenimiento del aula Althia/Informática y del resto de equipos TIC?



28. MANTENIMIENTO- ¿Los ordenadores y equipos de los diferentes programas (Althia, Escuela 2.0, Rincón del Ordenador de El...) tienen un software educativo adecuado?

0

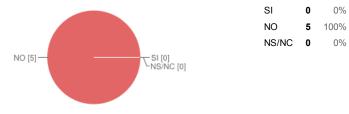
5 100%

0%

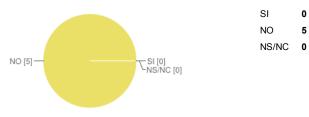
0%



### 29. MANTENIMIENTO- ¿La administración ofrece un servicio técnico adecuado?



### 30. SOFTWARE- El software educativo existente en el centro es suficiente y adecuado



### Number of daily responses



# TEACHER QUESTIONNAIRE SPANISH REGION

# 72 responses

View all responses

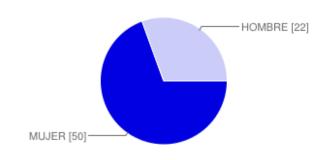
Publish analytics

### **Summary**

### 1. CÓDIGO DE CENTRO

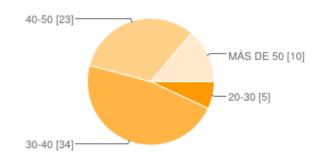
45000023 45600049 45001349 IES SAN BLAS 45004960 45006049 450000243 45004594 S4500245H

### 2. SEXO



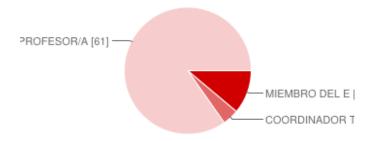
MUJER **50** 69% HOMBRE **22** 31%

### 3. EDAD



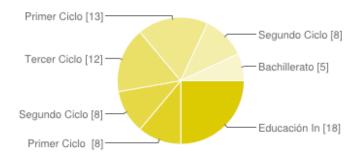
20-30 **5** 7% 30-40 **34** 47% 40-50 **23** 32% MÁS DE 50 **10** 14%

### 4. CARGO



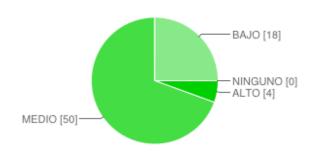
MIEMBRO DEL EQUIPO DIRECTIVO 8 11% COORDINADOR TIC/COORDINADOR DE FORMACIÓN 3 4% PROFESOR/A 61 85%

### 5. CICLO EN EL QUE IMPARTES CLASE PRINCIPALMENTE



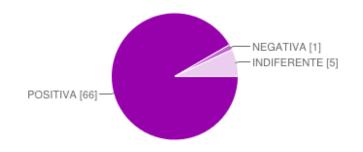
Educación Infantil	18	25%
Primer Ciclo de Primaria	8	11%
Segundo Ciclo de Primaria	8	11%
Tercer Ciclo de Primaria	12	17%
Primer Ciclo de Secundaria	13	18%
Segundo Ciclo de Secundaria	8	11%
Bachillerato	5	7%

# 6. GRADO DE FORMACIÓN EN T.I.C. (Tecnologías de la Información y la Comunicación)



ALTO	4	6%
MEDIO	50	69%
BAJO	18	25%
NINGUNO	0	0%

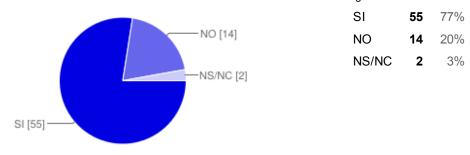
### 7. ACTITUD PERSONAL HACIA LAS T.I.C.



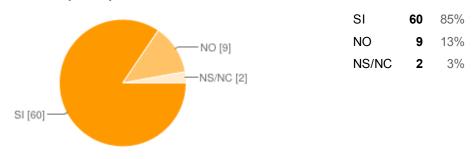
POSITIVA **66** 92% NEGATIVA **1** 1% INDIFERENTE **5** 7%

### BLOQUE 1. DESARROLLO CURRICULAR E INCORPORACIÓN DE LAS TIC EN EL PROCESO DE ENSEÑANZA-APRENDIZAJE

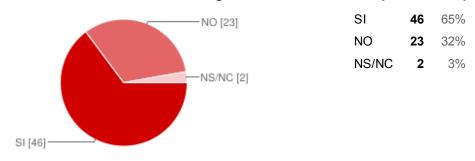
8. Como docente, ¿incorporas indicadores de la competencia digital en entre los indicadores de evaluación de las áreas que impartes?.



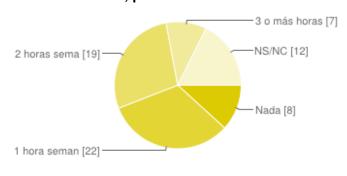
# 9. ¿Programas y realizas actividades específicas para trabajar la competencia digital en de las áreas que impartes?



### 10. ¿El alumnado debe usar las TIC, alguna vez, en las tareas que mandas para casa?

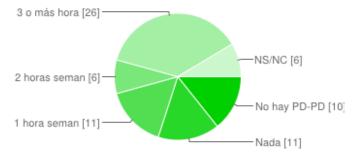


# 11. Indica aproximadamente el tiempo que dedican los alumnos a trabajar con las TIC en tu aula/clases, por término medio:



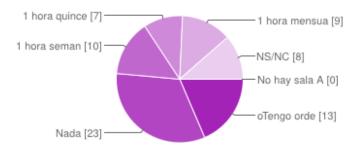
Nada	8	12%
1 hora semanal	22	32%
2 horas semanales	19	28%
3 o más horas semanales	7	10%
NS/NC	12	18%

# 12. Indica aproximadamente la frecuencia con que utilizas la Pizarra Digital (PD-PDI) o proyectores en las clases.



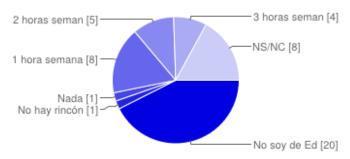
No hay PD-PDI	10	14%
Nada	11	16%
1 hora semanal	11	16%
2 horas semanales	6	9%
3 o más horas semanales	26	37%
NS/NC	6	9%

# 13. Indica aproximadamente la frecuencia con la que acuden tus alumnos al Aula Althia o salas de ordenadores.



No hay sala Althia/Informática	0	0%
o Tengo ordenadores del Escuela 2.0 en clase.	13	19%
Nada	23	33%
1 hora semanal	10	14%
1 hora quincenal	7	10%
1 hora mensual	9	13%
NS/NC	8	11%

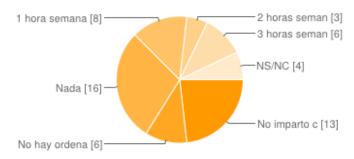
# 14. Indica aproximadamente la frecuencia con la que tus alumnos-as utilizan el rincón del ordenador (Educación Infantil)



No soy de Educación Infantil 20 43%

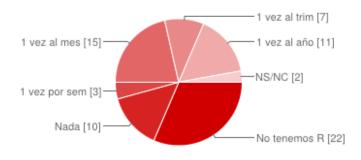
No hay rincón del ordenador	1	2%
Nada	1	2%
1 hora semanal	8	17%
2 horas semanales	5	11%
3 horas semanales o más	4	9%
NS/NC	8	17%

# 15. Indica aproximadamente la frecuencia con la que tus alumnos-as utilizan los ordenadores del Escuela 2.0 (profesorado de tercer ciclo de Primaria y 1º/2º ESO):



No imparto clases en tercer ciclo de Primaria o primer ciclo de Secundaria	13	23%
No hay ordenadores del Programa Escuela 2.0 en mi aula/clases.	6	11%
Nada	16	29%
1 hora semanal	8	14%
2 horas semanales	3	5%
3 horas semanales o más	6	11%
NS/NC	4	7%

# 16. Indica aproximadamente la frecuencia con la que tus alumnos-as utilizan la Radio Escolar

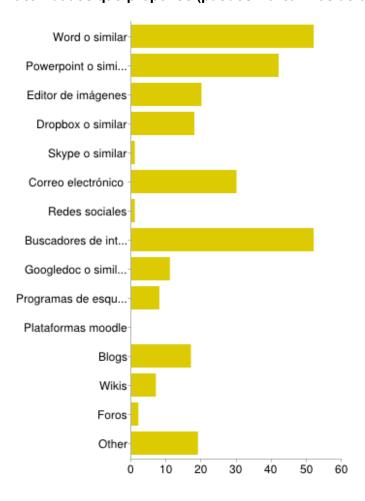


No tenemos Radio Escolar	22	31%
Nada	10	14%
1 vez por semana	3	4%
1 vez al mes	15	21%
1 vez al trimestre	7	10%
1 vez al año	11	16%
NS/NC	2	3%

### 17. En tu opinión, ¿en qué áreas se usan más las TIC?

Conocimiento del Medio Instrumentales y Conocimiento del Medio, Social y Cultural Conocimiento. Escritura INGLÉS conocimiento del medio matemáticas matemáticas Tecnologia Tecnologías Lengua, matemáticas, conocimient y ciudadanía Conocimiento del En Lengua y Conocimiento del Medio medio Tecnologías-Informática Inglés, Matemáticas, Lengua, Conocimiento del Medio, Música lengua ACT CONOCIMIENTO DEL MEDIO, DEPENDE DEL PROFESOR matemáticas, lengua e inglés MATEMÁTICAS Y LENGUA En las materias más instrumentales como por ejemplo Tecnología comunicación y representación En conocimiento del medio TECNOLOGÍA Conocimiento En todas. comunicacion y representación y área del medio físico y social tecnolog'ia Conocimiento del Entorno Cientifico TECNOLOGIA EN INFÓRMATICA Y TECNOLOGIA **LENGUA** tecnologico musica TODAS CONOCIMIENTO DEL MEDIO, INGLÉS, LENGUA Y en Conocimiento del Medio tecnología MATEMÁTICAS, CIUDADANÍA Conocimiento del Medio. Educación Física, y plástica C.MEDIO Y MATEMATICAS todas matemáticas, lengua y cono cada profesor. conocimiento del medio Música, Tecnología, Informática En todas por igual Inglés comunicacion y lenguajes tecnologias informatica y tecnología Personalmente, las uso en todas las que imparto, según los intereses del momento. Tecnología, informática matemáticas, historia matemáticas, conocimiento del medio conocimiemto del medio informática, TICO, tecnología comunic y representacion Informática y tecnología

# 18. Selecciona qué programas/software usan habitualmente tus alumnos-as en las actividades que propones (puedes marcar más de una):



Word o similar	52	19%
Powerpoint o similar	42	15%
Editor de imágenes	20	7%
Dropbox o similar	18	6%

Skype o similar	1	0%
Correo electrónico	30	11%
Redes sociales	1	0%
Buscadores de internet	52	19%
Googledoc o similares	11	4%
Programas de esquema o de mapas conceptuales	8	3%
Plataformas moodle	0	0%
Blogs	17	6%
Wikis	7	3%
Foros	2	1%
Other	19	7%

# 19. Indica para qué actividades usas habitualmente las TIC en tus clases (puedes marcar más de una).

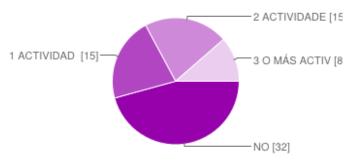


Exponer o visionar contenidos	59	16%
Corrección de ejercicios	23	6%
Juegos o programas educativos	50	14%
Enviar tareas o trabajos a través del e.mail	29	8%
Búsqueda y selección de información en internet para ampliar o profundizar sobre un tema	50	14%
Cuestionarios de evaluación	5	1%
Webquest o similares	15	4%

Organización , resumen o síntesis de información mediante mapas conceptuales	10	3%
Elaboración de trabajos expositivos por el alumnado con programas como word, Powerpoint o similares	34	9%
Videoconferencia y otras comunicaciones (e-mail, chat) compartidas	6	2%
Trabajos cooperativos	17	5%
Trabajos de investigación y creación y desarrollo	20	6%
En entornos de aprendizaje virtuales (plataformas colaborativas)	3	1%
Realización de ejercicios y/o debates entre todos con el apoyo de las NNTT	10	3%
Alumnos hacen de profesores: preparan un tema y lo presentan	17	5%
Fomentar la capacidad crítica y a la vez humana y contextualizada de las informaciones obtenidas	6	2%
Other	4	1%

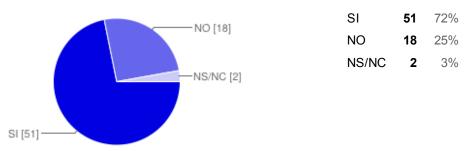
# BLOQUE 2. FORMACIÓN, INNOVACIÓN, COMUNICACIONES Y PROYECTOS TIC DE CENTRO

# 20. FORMACIÓN. ¿Has participado en el último año en alguna actividad formativa (seminario, taller, etc.) relacionada con las nuevas tecnologías/TIC?

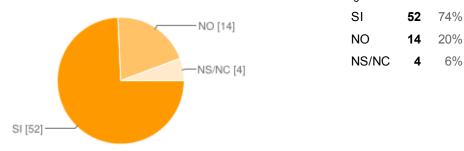


NO	32	46%
1 ACTIVIDAD FORMATIVA	15	21%
2 ACTIVIDADES FORMATIVAS	15	21%
3 O MÁS ACTIVIDADES FORMATIVAS	8	11%

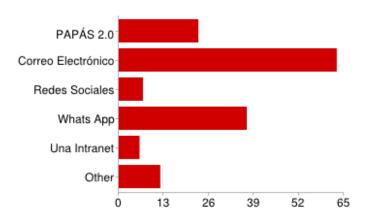
# 21. FORMACIÓN. En tu opinión, ¿tienes la formación necesaria y suficiente para manejar, a nivel básico, los recursos digitales del centro y utilizar las TIC en tu trabajo docente diario?



# 22. INNOVACIÓN. ¿En tu centro se comparten e intercambian las ideas y experiencias innovadoras ligadas a las TIC?

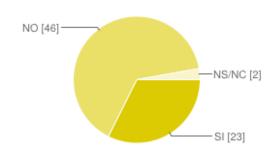


# 23.COMUNICACIONES ENTRE EL PROFESORADO. Señala los medios que se usan para la comunicación entre los docentes de tu centro.



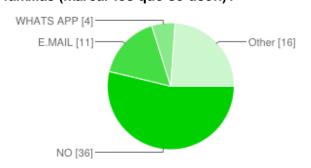
PAPÁS 2.0	23	16%
Correo Electrónico	63	43%
Redes Sociales	7	5%
Whats App	37	25%
Una Intranet	6	4%
Other	12	8%

# 24.FAMILIAS Y COMUNICACIÓN ¿Usas el programa Papás 2.0 para la comunicación con las familias y otras tareas de centro (publicación de notas, faltas de asistencia, etc.)?



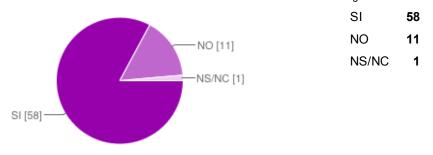
SI **23** 32% NO **46** 65% NS/NC **2** 3%

# 25. FAMILIAS Y COMUNICACIÓN ¿Usas otros medios de comunicación con las familias (marcar los que se usen)?

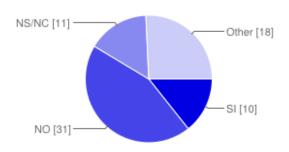


NO3654%E.MAIL1116%WHATS APP46%Other1624%

26.OTROS PROYECTOS. ¿Utilizas el programa Delphos en tu labor docente?



# 27. ¿En tu centro hay otros proyectos relacionados con las TIC que no aparecen en este cuestionario (especificar en caso afirmativo)



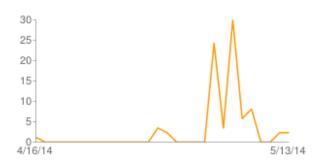
SI	10	14%
NO	31	44%
NS/NC	11	16%
Other	18	26%

83%

16%

1%

### **Number of daily responses**



# CENTER AND TEACHER QUESTIONNAIRE FINISH REGION

Mariano fernández Edit this form

## 7 responses

View all responses

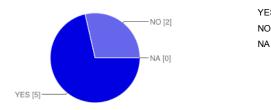
Publish analytics

#### Summary

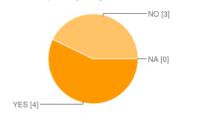
#### NAME OF THE SCHOOL

Akaan lukio Pappila Roukko primary school Viialan keskustan koulu Toijalan yhteiskoulu Hirvialho school Pappila, Toijala

Our institution has an ICT programme or plan which organizes and guides the ICT work at school?



Our institution plans yearly courses of action about ICT included in the General Annual Programme

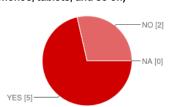


YES **4** 57% NO **3** 43% NA **0** 0%

2 29%

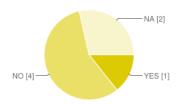
0 0%

In our school rules we have some criteria about the use and correct support of digital resources (ALTHIA, netbooks, smartphones, tablets, and so on)



YES **5** 71% NO **2** 29% NA **0** 0%

This ICT plan as well as other ICT actions in the General Annual Programme are assessed yearly in the school memory and other evaluation processes and different improvement suggestions are established for the next course.



YES **1** 14% NO **4** 57% NA **2** 29%

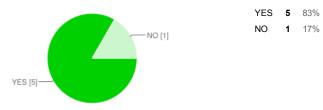
#### 2. ICT CCORDINATOR/COMMISSION

#### Indicate the responsible for your centre:

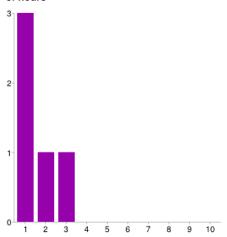
Marika Semi Sini Kalliokoski Pasi Repo Pekka Laitinen Petri Aarnio two teachers do it a hour/week Head teacher No responsible.

All ICT- coordination is issued by the level of the regional administration Pentti Frondelius

The ICT coordinator/commission of your centre has time weekly to carry out his functions.

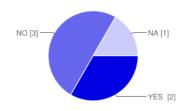


The ICT coordinator/commission of your centre has time weekly to carry out his functions. In affirmative case, specify the number of hours



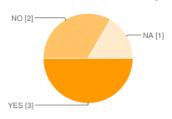
60% 1 3 2 20% 1 3 1 20% 4 0% 6 0 0% 0 0% 8 0 0% 0 0% 0%

#### This dedication time seems to be enough for you



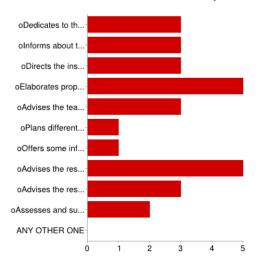
YES 2 33% NO 3 50% NA 1 17%

#### Your school ICT coordinator has enough experience and training in the field of ICT



YES 3 50% NO 2 33% NA 1 17%

#### Mark the tasks the ICT coordinator develops:



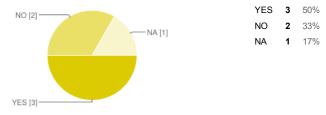
o Dedicates to the maintenance of the ICT school resources and if necessary gets in touch with technical services. o Informs about the software resources of the centre.

**3** 10%

**3** 10%

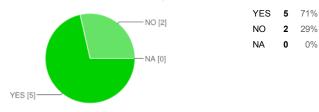
o Directs the installation, configuration and uninstallation of software with curricular purposes and supervise the proper functioning of the programmes installed	d. <b>3</b>	10%
o Elaborates proposals for the organization and management of the technological school resources.	5	17%
o Advises the teaching staff about the curricular materials related to multimedia formats, its use and the incorporation strategy within the didactic planning.	3	10%
o Plans different training activities with teachers (group Works, seminars, courses or projects)	1	3%
o Offers some information about training activities from other institutions.	1	3%
o Advises the rest of the teaching staff about the use of ICT.	5	17%
o Advises the rest of the teaching staff about the integration of ICTs in the classroom.	3	10%
o Assesses and supervises the organization and management of the technological school resources.	2	7%
ANY OTHER ONE	0	0%

#### The management team of your centre facilitates the incorporation and access to ICTs.

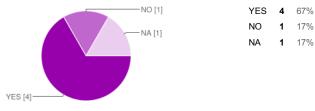


# 3. SCHOOL CENTRE ICT RESOURCES. NUMBER, STATE, ORGANIZATION AND COORDINATION

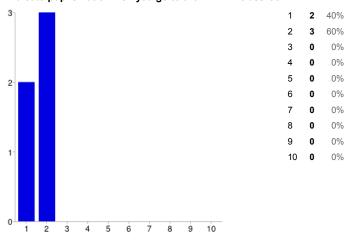
#### There is an ALTHIA classroom with computers.



#### ALTHIA classroom computers work correctly



#### Indicate pupils' ratio when you go to the ALTHIA classroom.

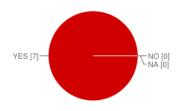


All the teaching staff has a computer for educational use.



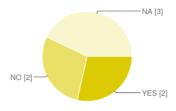
YES	7	100%
NO	0	0%
NA	0	0%

#### Teachers' computers works correctly



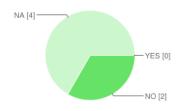
YES	7	100%
NO	0	0%
NA	0	0%

#### We have computers, cupboards, and Digital whiteboards of School 2.0 program



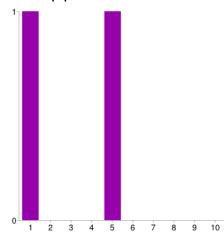
YES 2 29% NO 2 29% NA 3 43%

School 2.0 program computers works correctly.

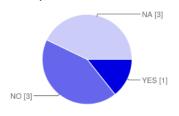


YES 0 0% NO 2 33% NA 4 67%

#### Indicate pupils' ratio /netbook School 2.0

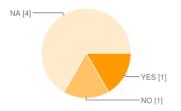


There are computers in each one of the Pre-school classrooms dedicated to the 'Computer's corner'



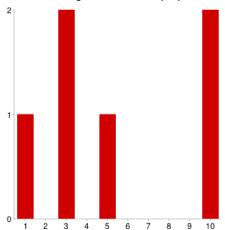
YES **1** 14% NO **3** 43% NA **3** 43%

Computers work correctly.

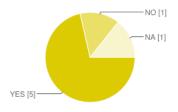


YES 1 17% NO 1 17% NA 4 67%

#### Indicate the Digital whiteboards proportion in your centre.

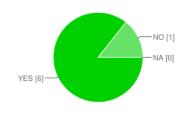


#### Interactive whiteboards work correctly



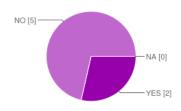
NO 1 14% NA 1 14%

#### The access to the internet is enough to provide all computer devices



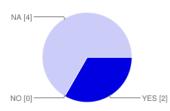
YES 6 86% NO 1 14% NA 0 0%

#### There is a school radio in your centre.



YES **2** 29% NO **5** 71% NA **0** 0%

#### School radio works correctly.



YES **2** 33% NO **0** 0% NA **4** 67%

#### Indicate if there are more ICT resources apart from the ones analysed before.

tablets, personal 77, 20 for free use Ipads tablets document cameras, iPads Pupils can use their own devices on some classes. There's a free wifi in

the school.

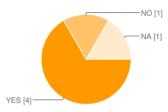
Indicate approximately the percentage of students who have a computer at home to carry out different tasks.

100% 99 100 95 90

Indicate approximately the percentage of students who have internet connection at home to accomplish different tasks.

100% 99 100 90

The school centre dedicates a line ítem to buy equipment and ICT material or to update it.



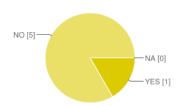
YES **4** 67% NO **1** 17% NA **1** 17%

This line ítem is enough to fulfill the needs of the school centre.



YES 2 33% NO 3 50% NA 1 17%

The budgetary provision of the administration for ICTs or equipments supply is enough.



YES 1 17% NO 5 83% NA 0 0%

All the school computers have suitable antivirus.



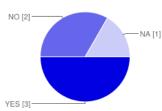
YES 6 100% NO 0 0% NA 0 0%

The centre has developed protection measures of pupils and teachers data.

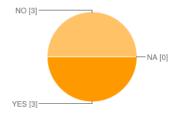


YES **5** 83% NO **1** 17% NA **0** 0%

The centre has the suitable software and hardware licences to develop the ICT plan at school.

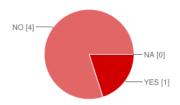


YES **3** 50% NO **2** 33% NA **1** 17% The teaching staff has a work schedule for the use and availability of laptops, netbooks, tablets, digital whiteboards.



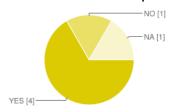
YES **3** 50% NO **3** 50% NA **0** 0%

There are some 'minimum use' criteria on teacher's behalf about ICT resources.



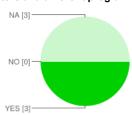
YES 1 20% NO 4 80% NA 0 0%

There is someone / team who is responsible for the ALTHIA support and the rest of ICT equipments.



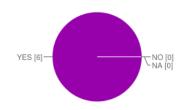
YES 4 67% NO 1 17% NA 1 17%

Computers and different programme equipments (ALTHIA, School 2.0, Computers' corner) have a suitable educative software.



YES **3** 50% NO **0** 0% NA **3** 50%

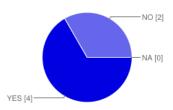
The Administration provides a correct technical service.



YES 6 100% NO 0 0% NA 0 0%

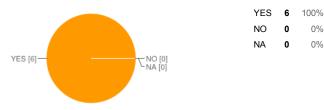
# 4. CURRICULAR DEVELOPMENT AND ICTs INCORPORATION TO THE LEARNING-TEACHING PROCESS

As a teacher you include some digital competence criteria amongst the assessment criteria of the subjects you teach.

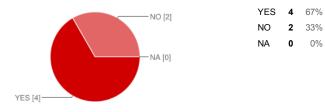


YES **4** 67% NO **2** 33% NA **0** 0%

You develop different activities to work on digital competence in the subjects you teach.



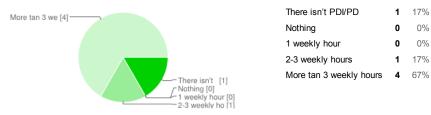
#### Students must use ICTs in the different tasks proposed at home.



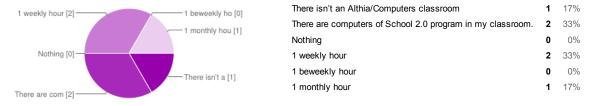
#### Indicate approximately the time spent by pupils to work on ICTs in your classes



#### Indicate approximately the frequency you use the digital whiteboard or projector in your classrooms



#### Indicate approximately the frequency your pupils go to the ALTHIA classroom or computer classroom



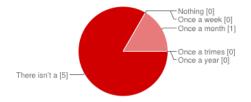
#### Indicate approximately the frequency your pupils use the computer's corner



#### Indicate approximately the frequency your pupils use School 2.0 computers

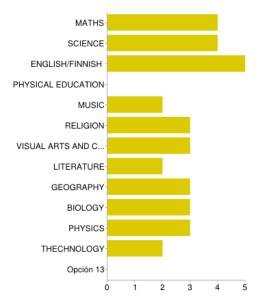


#### Indicate approximately the frequency your pupils use the School radio:



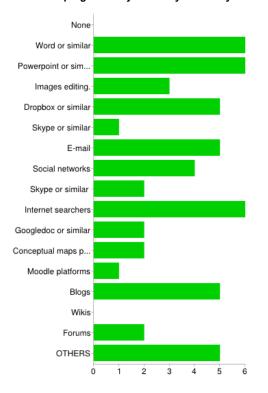
There isn't a school radio 5 Nothing 0 0% 0% Once a week 0 Once a month 1 17% Once a trimester 0 0% Once a year 0%

#### In your opinion, what are the areas you use ICTs frequently?:



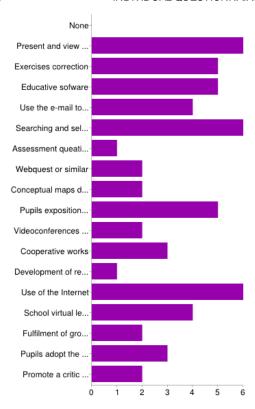
12% SCIENCE 12% ENGLISH/FINNISH 15% 5 PHYSICAL EDUCATION 0 0% MUSIC 2 6% RELIGION 3 9% VISUAL ARTS AND CRAFTS 3 9% LITERATURE 2 6% **GEOGRAPHY** 3 9% **BIOLOGY** 3 9% **PHYSICS** 3 9% THECHNOLOGY 2 6% Opción 13 0 0%

#### Select the programmes you usually use with your students.



None 0 0% Word or similar 6 11% Powerpoint or similar 6 11% Images editing. 3 5% Dropbox or similar 5 9% Skype or similar 1 2% E-mail 5 9% Social networks 4 7% Skype or similar 2 4% Internet searchers 11% Googledoc or similar 2 4% Conceptual maps programmes 2 4% Moodle platforms 1 2% Blogs 5 9% Wikis 0 0% Forums 2 4% OTHERS 9% 5

Indicate the ICT activities teachers usually use



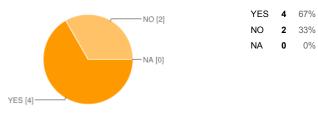
None	0	0%
Present and view contents	6	10%
Exercises correction	5	8%
Educative sofware	5	8%
Use the e-mail to send different tasks.	4	7%
Searching and selection of information on the internet to widen and go in depth about a topic.	6	10%
Assessment queationnaires	1	2%
Webquest or similar	2	3%
Conceptual maps development	2	3%
Pupils exposition works' presentations with Word, powerpoint or similar programmes	5	8%
Videoconferences y otras shared communications (e-mail, chat)	2	3%
Cooperative works	3	5%
Development of research and creation Works	1	2%
Use of the Internet	6	10%
School virtual learning environment(team work platforms)	4	7%
Fulfilment of group tasks and debates with ICTs support.	2	3%
Pupils adopt the role of teachers: they prepare a topic and then present it.	3	5%
Promote a critic as well as human and contextualised attitude to the information obtained.	2	3%

#### 5. TRAINING, INNOVATION, COMMUNICATION AND ICTS SCHOOL CENTRE PROJECTS.

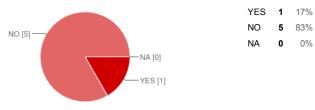
You have participated during the last year in some teacher training activity, seminar, workshop... related to ICTs.



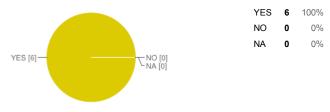
In my opinion, you have the necessary and enough training to manage, at a basic level, with digital school resources and use ICTs in your daily work.



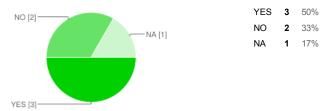
#### There are training activities in YOUR centre with families related to ICTs.



#### Your school centre has a webpage or institutional blog.



#### At your school centre, there are some educative blogs developed by teachers themselves.



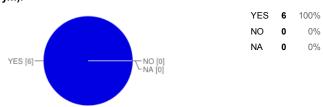
## At your school centre, there are some educative blogs developed by teachers themselves. In affirmative case, specify the aim of their creation.

Tips for parents to improve learning at home Informing the students and parents of school work: events etc, special courses developed to be completed on the net

#### Indicate the ways of communicating between teachers:



## You use the WILMA or PEDANET programme to communicate with families and other school tasks (marks publication, assistance registry...).



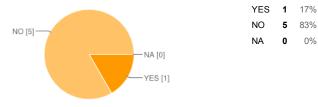
#### You use other means of communication with families (indicate it).

E-mail Phone, email, face to face conversations email The primary channel is wilma, also in use email, telephone call, note/letter e-mail, phone, letters

If You use any other programme in your educational work, please could you indicate it.

mobie digital teaching materials peda.net

In your school centre there are other projects related to ICTs which are not present in this questionnaire .



In your school centre there are other projects related to ICTs which are not present in this questionnaire.

We have had some laptops (15) in our use in our school from February 2014 to May 2014. Otherwise there are no computers for the pupils.

#### Number of daily responses









