DEPIT

Designing for Personalization and Inclusion with Technologies

2017-1-IT02-KA201-036605

Deliverable IO3 – A1
Analysis of the pilot phase in the Italian and Spanish schools

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Introduction

The Depit App was developed by Infofactory with the contribution of UNIMC, UNICATT and UCL from the methodological point of view.
The App's main purpose is the possibility of carrying out an educational path. The teacher can create three related structures: that of the curriculum whose hubs are the modules, that of the individual modules whose hubs are the lessons and that of the individual lessons whose hubs are the activities. The structure is defined Graphic Organiser as it provides a clear view of the organisation of the educational path. In addition to the title, each hub may contain some pedagogic - educational indications: purposes and goals, schedules, notes. The teacher must be able to: 1. plan a learning path. 2. assigning specific activities to individual students.

Between May and October 2018, a series of 22 training sessions allowed to describe and explain the use of the app to teachers of schools in Italy and Spain, for a total of 18 meetings. In total 575 teachers were trained: 281 teachers in the Pordenone area (Rete Depit); 169 in the area of San Benedetto del Tronto and Grottammare (Rete Crescendo); 125 in Seville (CEP).

The teachers attending the training provided interesting feedback and suggestions that have been useful to modify and improve bugs and functionality of the app. Since October 2018, the pilot phase began with schools, lasting until February 2019. In Spain, 9 schools were involved, for a total of about 800 students. In Pordenone province the teachers involved are 135 from 5 different schools. In Grottammare and San Benedetto del Tronto 54 teachers took part in the pilot phase.

An evaluation questionnaire was distributed to the teachers to provide feedback on the test phase. The questionnaire concerned aspects related to the professionalism of teachers (timing, complexity, use of mediators and tools) and related aspects to student learning (guidance, holistic vision, inclusion and personalization), as well as pedagogical and technological issues. The results of the questionnaires (98 in total) were then summarized in this report, together with the main results from the pilot phase.
The total number of teachers involved in the phase overcame the planned amount: instead of 48 in total, more than 200 teachers actively participated in the App testing, whereas 575 teachers were trained for the use of the app.
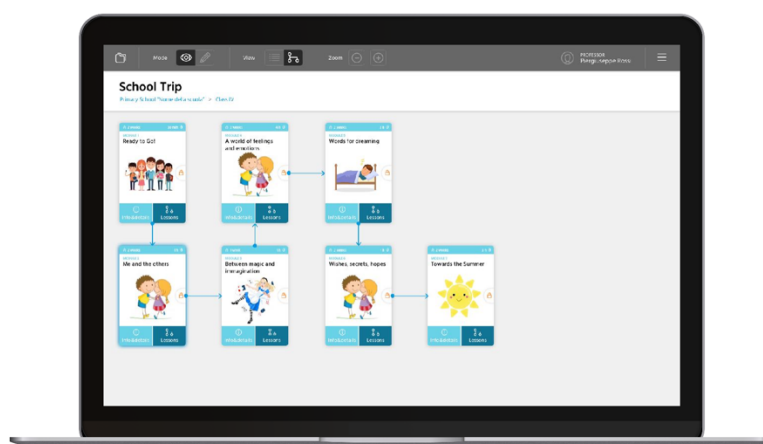
The Depit App pilot phase in Pordenone

In Pordenone schools, 135 teachers from 5 different institutes were involved in the pilot phase. Some of them do not use the app in the classroom and someone after a first use in the education phase has no longer used it.

The training course took place in 4 two-hour work sessions:

1. The first meeting illustrated the scientific fundamentals of Depit, the following were provided with a similar map to design an activity / path or Learning unit for their class.
2. In the second meeting the teachers downloaded the application and explained the features (they tried the app) and started to insert their activity.
3. The tird meeting completed the compilation with Depit App.
4. The fourth meeting defined the correlation between their project activity and the National Guidelines, the curriculum of the institute and the Processes evaluated in the Evaluation form.

There is a key element to point out: a small group had a previous experience with *vue*, whereas a large group had no school curriculum experience with i.w.b. (multimedia interactive whiteboard) or computer. A small teachers group come from middle school and the largest one from primary school.

We can see the pilot phase from two points of view: the teachers one and the students one.

There are two things that have affected teachers' work with DEPIT:

1) The first one is "being motivated" by using the tool and this motivation or has improved or has led to a give up work.

2) The second ones are about technological skills (some teachers can't use a computer), and expectations of the app (some thought that the work was already done).

The learning time was for some teachers an increased workload, others give up work because they believed that they should use the app in all its functionality.

Therefore, some teachers have left but there were also new entrances.

Who left this project was looking for an application that worked in his place or he/she was afraid of the initial hard working.

Somebody else, not having enough basic skills, couldn't work. Others couldn't work because they haven't got the interactive blackboard in their classroom.

New entrances were determined by the enthusiasm of the teachers that already work with DEPIT, who shared the different functionality of the application.

Also, many positive aspects have emerged that have motivated and supported teachers in pilot phase:

- It helps the meta - reflection of the classroom action;

- It documents the path;

- It improves the time management in the classroom;

- It decreases the time to devote to the design it decreases the time spent on planning;

- The design is not linear, but as a system;

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- It allows to switch from the micro to the macro and vice versa;

- it allows to have the resources always available;

- It allows to alternate activities in accordance with the time of children.

Positives sides:

1. Different fallout if the path starts from the first classes;

2. In the following classes, despites having a positive fall, we seem to notice a less penetrating effect;

3. With the maturity of the students there is a greater participation in the design process;

4. students with certified disability show a decrease in stress and an increase in awareness of commitment;

5. For all students we noticed changes with respect to the classroom action: more participation, more attention.

We have noticed the following:

- Too big buttons that obscure the card contents, this distracts the students from the card contents.

- limited number of characters that can be inserted into a card, this does not allow to enter exercises or other items completely. The impossibility to change the character limits the readability for the students with special educational needs.

- Contents shift (change of position) when switching from macro to micro and vice versa, this forces the teacher to spend time to put the display in place.

- No possibility to insert mp3 files in the card, this is a limitation for the music teacher when he/she works with the student.

Graphic limitations of the application:

1. Possibility to cut and paste cards between levels, this would make easier to create lessons at different levels especially when activities are part of a routine;

2. Possibility to change the card from activity to lesson or module and vice versa, it would allow us to change cards' purpose without delete anything;

3. Possibility (in the structure screen) to manage levels in a customized way or to modify the sequence, changing levels is part of the path flexibility that we first think of in one way but that can be changed in the classroom;

4. Arrow-shaped objects that must be manually selected each time from a card to another, this is a limitation for the teacher who must create the connections every time.

We have some questions about the future of the DEPIT project. After the experimentation and exchange phase foreseen by the project, what will happen? Will there be activity monitoring? Which is the future of the app entrusted to external to the project? What does the scientific part think about it?

Through the questionnaires and feedback received, do you notice differences between nation and country in the use of the app?

The Depit App pilot phase in Macerata

## Main results from the testing phase in Grottammare

The experimentation of the beta version of the APP has been carried out by 54 teachers from four Italian schools from Grottammare (17 teachers), San Benedetto del Tronto (7 teachers), Montalto delle Marche (16 teachers) and Monteprandone (14 teachers). Ten teachers work in kindergarten, 25 teachers work in primary school and 19 from middle school.

The teachers were involved in three training meeting:

First meeting: 31/05/2018 – 01/06/2018 (number of participants: 57)

Second meeting: 10/09/2018 (number of participants: 58)

Third meeting: 05/11/2018 (number of participants: 54)
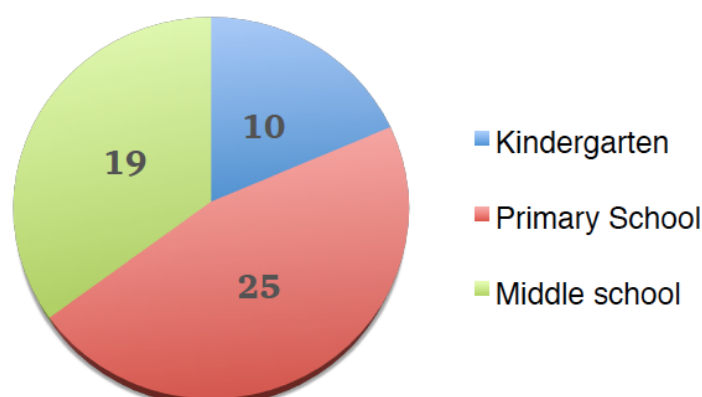
In the first period of the experimentation, most of the teachers preferred to concentrate on the didactic design phase rather than on the active use of the application in the classroom.

This choice was due to the need to become familiar with the new model and with the application itself, before going to actually use it with the learners. Secondly, many schools do not yet have a set of interactive whiteboards inside all the classrooms, but they often turn out to be available only in shared classrooms for all classes. This factor, of course, causes problems related to the need to book these classrooms.

Some have, however, started to experiment immediately with its use during lessons.

CONCLUSIONS

The reaction of all the testing teachers to the use of the APP, both those who used it only to design and those who used it in the classroom, was generally positive for the regulation in action.

The teachers agree that the app is very intuitive and easy to use. At the same time, students consider the application very useful, because in this way they are able to better understand

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the lesson, which presented in a schematic and in-depth form proceeds in a more fluid and orderly way.

Teachers agree, also, to point out some critical issues regarding the use of the application during the design phase with the students. The age is crucial because not all the students have the necessary tools. The problem increases for younger students.

Overall evaluation in the Italian schools

Introduction

At the beginning of the Second four months of experimentation of the APP DEPIT in the school networks, a cognitive questionnaire was delivered to the participating teachers to understand the state of the art of the planning process through the APP in the classes. It helped to give evidence to the thoughts of the teachers above all on the elements of transformation, observed in a medium-short period, introduced by digital design artifacts both at the level of teacher practices and at the level of learning of the students involved.

The questionnaire was provided through online forms and was structured in 4 sections: the first concerning the personal and contextual data of the teachers who in this way can be classified by order of school, class and subjects taught; the second centered on aspects related to teacher professionalism; the third focused on students' learning and behavior; the fourth one on technical and pedagogical aspects that teachers considered problematic and therefore to be modified or implemented.

The questionnaire consisted of 16 questions, both closed and open. It was opened for about 2 weeks and was completed by 98 teachers.
Out of the 98 questionnaires, the majority (72%) teach in primary school, 18% in secondary school level and 10% in kindergarten. These percentages are in line with the type of teachers participating in the testing.
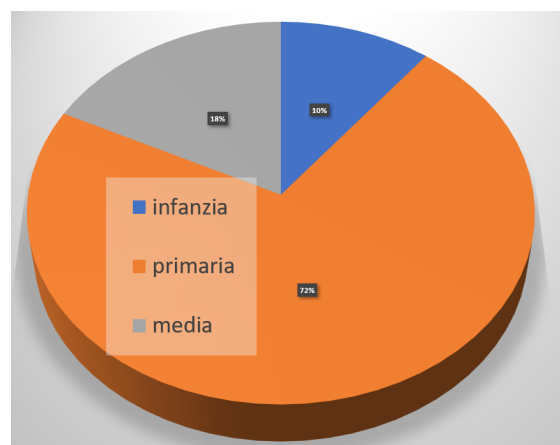
The taught disciplines and the reference classes are varied and cover exhaustively all the years provided for in the three school orders, and all the fields of knowledge included in the respective curricula.

The teacher's Project design

The answers relating to the design practice of the teachers focus on four distinct professional areas.

1. First of all, the transformation of the practices triggered by the use of the application. Almost half of the teachers interviewed previously designed on paper, producing personal designs, to be used as a canvas in the daily education action. Only 17% said they were already used to designing with digital media of various kinds.

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2. The second question addressed concerns the potential of the APP in helping the teacher to build paths of coherence between the founding elements of the teaching-learning process: the competences, the objectives, the knowledge, etc. 59% of the sample said that the application supports them consistently (much more than enough) in this complex process.
3. The third question is focused on the function of aggregator carried out by the DEPIT APP, with respect to content, artefacts and digital tools to be made immediately available in the classroom. This seems to be the most satisfactory function found by the experimenting teachers, who, in 79% of the cases, find the application an excellent tool to be used to this purpose.
4. Finally, the last question relates to the logical coherence of the macro path that takes place in the classroom, with an annual duration. Also, in this sense the application is considered an important support.

Teachers were also asked to indicate which aspect of the teaching process was most supported by the use of the application to design. The teachers have especially appreciated the possibility of creating paths of personalization parallel to the main one and the possibility of acting as an aggregator of mediators that can facilitate the learning of the students.
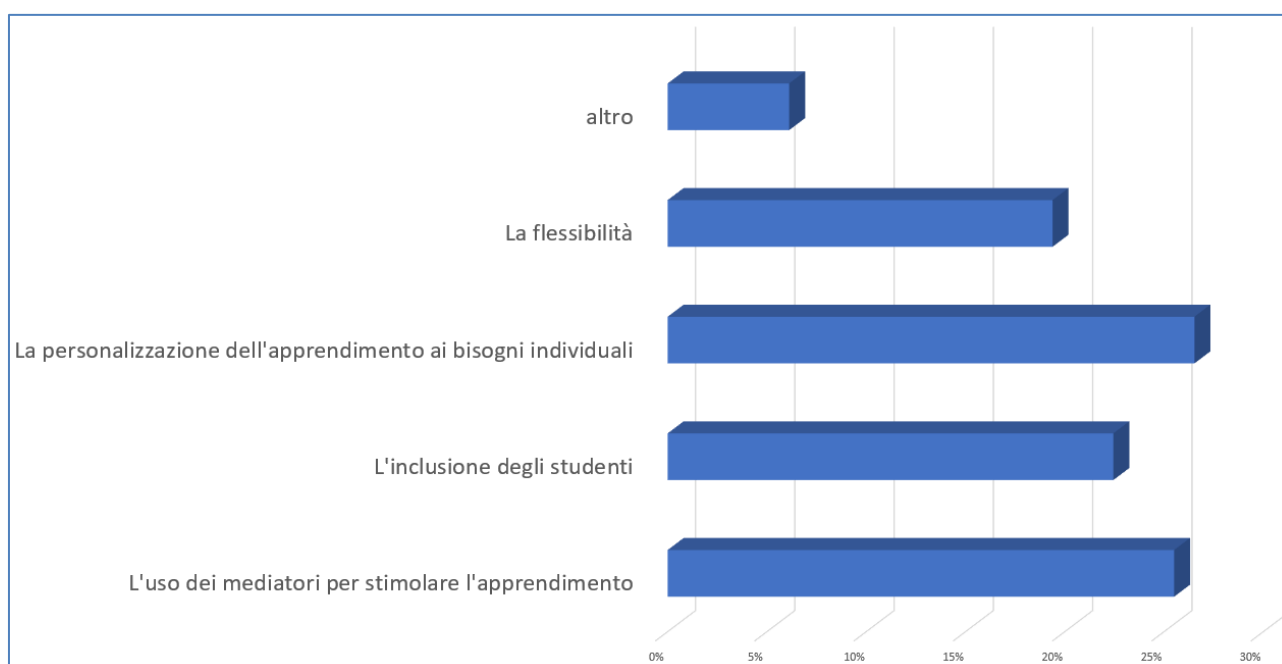
Students' learning

Compared to the questions concerning the implementation of aspects related to student learning, the teachers found a good change in the global vision of the general path of the discipline, within which the students move with greater awareness and cognition thanks to the function of guidance and location offered from the design artifact produced by the application.

The visualization of the path is considered an excellent tool to increase the ability to manage the commitment and activity of the students and consequently also to improve motivation and use of their resources.

Teacher's professionality

Through the analysis of the last part of the questionnaire, the reflections on aspects and professional postures implemented by the application were interesting.
The first relevant element concerns the reflexive posture. The teachers believe that the app leads to a continuous evaluation of their educational choices, to the engagement with the planning of the institute, to the precise definition of the objectives and to a reflection on the competences.
Also, the application ensures greater sustainability of the planned routes, which can be reviewed and redesigned both to make them more inclusive, and to regulate times, contents, and commitment foreseen for students.
Finally, the multi-modality of the application allows teachers to design differentiated activities by communication channel, language, pedagogical model of reference and therefore to align them both with the professional style of the teacher, and with the needs and characteristics of the classes.

The Depit App Pilot phase in Sevilla, Spain

Introduction

The experimentation of the beta version of the APP has been carried out by 22 teachers from nine Sevillian schools. (five Primary School and four Secondary Schools). About eight hundred students have seen their lessons programmed with the app and worked in the planned activities and educational paths. After the experimentation phase more than 250 hundred teachers has been informed about DEPIT project, the pilot phase results and the use and benefits of the APP. CEP have developed two seminars, the first was carried out during Erasmus + Dissemination Seminar (05/06/2019) and the second one was conducted during the Training Seminar for new teachers staff and trainee teachers (13/02/2020)

1.Selection of teachers/ schools participants in the project

The Technical Team of the CEP of Sevilla helps, supports, advises and trains more than 12.000 teachers, directors and administrative staff and almost 350 schools, as we have to select only eight School centres to develop the pilot phase the Technical Team in European Project of CEP carried on an exhaustive selection of schools and teachers.

To select schools we took into account two main criteria:

❖ Schools from different educational levels: Primary and Secondary schools
❖ Schools from different sociocultural contexts (From Medium-class students to schools located in risk of social exclusion areas)

These criteria will help us to visualize the potential of APP DEPIT to personalize in different context and to proof the inclusive methodologies that the APP boost.

To select teachers we considered the following profiles

- ❖ Teachers with high professional competence and an innovative profile, who works with inclusive methodologies and have been recognised as an example of best practices in teaching and ICT implementation.
- ❖ Teachers who are a reference for other educators in key competencies programming and in the use of SÉNECA Platform which is the platform that Andalusia teachers due to use for annual programming and daily lessons. We considered their participation in this pilot phase is significant since it helps us to design the APP taking into account the governmental policies in education in Andalucia and to make the DEPIT App compatible with the current rules.
- ❖ Teachers who take part of the Management Team or play an essential role in their schools, it is important for the dissemination of the project and its results in their schools and in meetings with other schools counterparts.
- ❖ Teachers who have experience in training teachers and the capacity to promote changes in education.

SCHOOLS

LEVELS

SCHOOLS
IES VICENTE ALEIXANDRE
CEIP VALDÉS LEAL
IES TORREBLANCA
CEIP ZURBARÁN
CEIP MANUEL CANELA
CEIP SAN JOSÉ DE PALMETE
IES LEONARDO DA VINCI
IES BELLAVISTA
IES FRAY BARTOLOMÉ DE LAS CASA

LEVEL

PRIMARIA
47,6%   47,6%   52,4%   SECUNDARIA
52,4%
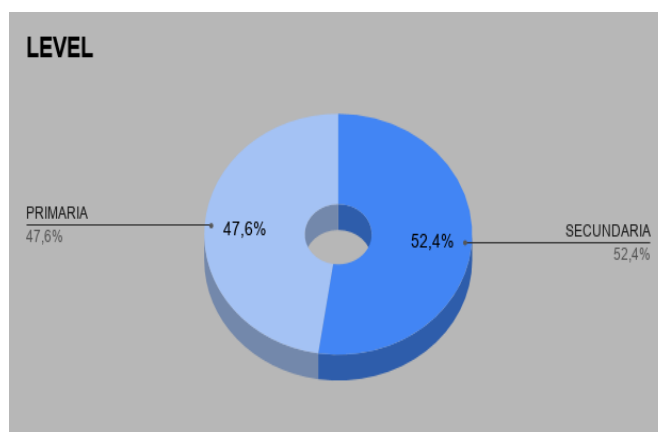
2. Main activities developed related to the pilot phase

All the teachers involved in the pilot phase developed the DEPIT project related activities and tasks detailed below:

Previous activities: Teachers provided Project DEPIT partners with real examples of annual programming and lesson plannings as well as information about their school/educational realities and needs to contribute to the development of O1: Guidelines for a proper planning.

The project idea was starting from the needs of the teachers who test the methodology, for that purpose, a cognitive questionnaire was elaborated. This survey encourage a broader

reflection about the teaching learning process, the importance of teacher design, the difficulties of programming with a personalised and inclusive model and the advisability of an APP that helps them.

The results will be shows in section **3.2**

Task 1: Meeting: 06/11/2017 Introduction to the project. In this meeting educators were aware of the importance of understand the inclusive and personalize methodology which is the guiding thread of DEPIT and the purposes, goals, schedules and directions of the Project. They also took a first approach of Diana Laurillard model, Conversational Framework focuses on the figure of the teacher as a professional in teaching design.

Task 2: Training Meeting: 16/11/2017. In the first part Professor Rossi (Universita Degli Studi Di Macerata) and Professor De Pablos (Facultad de Ciencias de la Educación de Sevilla) provided information to the teachers involved and CEP and USE staff about the APP: the three levels of curriculum concretion, the relevance of DEPIT APP to personalize paths and the flexible and customized approach. It was followed by a round table discussion in which there was a fruitful exchange of views, opinions and ideas related to pedagogical and technical aspects of DEPIT App prototype presented.

Task 3: 12/2017. Teachers provided partners with a first feed back of the prototype of the tool presented in the KOM.

Task 4: From 01/01/2018 to 31/02/2018 Teachers actively contributed to the development and improvement of the beta version.

Task 5: 12/04/2018. CEP staff convened a meeting to inform other schools about the project and the APP. (the new schools that participated in this meeting were: CEIP Vara del Rey, IES Itálica, IES Margarita Salas, IES Chávez Nogales and CEIP Jacarandá). We consider it is interesting to have a feedback of others innovative educational centres. In this meeting also participated teachers involved in the project.

Task 6: 26/06/2018-06/07/2018.
COURSE: *MODULE 1: DESING FOR PERSONALIZATION AND INCLUSION WITH TECHNOLOGIES (COD 182147ALI 021)*
CEP coordinated this course in collaboration with USE. The educational methodology of this training course, built in accordance with the method proposed by the project (Learning Design), envisaged a more purely theoretical part in order to allow a thorough understanding of the methodology and of the App, and a more practical part, mainly carried out through exercises concerning the use of the application and classroom experimentation.

The course was delivered in blended learning mode and this allowed teachers/trainers to be supported during the experimental activities in the schools as well as to be assisted in their space-time sustainability.

This first MODULE was structured in 10 hours, 32 teachers and trainers attended the contact hours. The main objectives of this course were: To raise awareness of the possibilities of the tool and to create a professional net based on the use of DEPIT APP to design and

programming. CEP certificated this course. After this course attendants responded to an attitude scale about the ICT and APP Depit which results will be exposed in section **3.3**

Task 7: 27/09/2018. A training workshop about the use of the APP was developed during the third Transnational meeting. Italian teachers and university staff showed Spanish teachers some examples of DEPIT maps and solved some technical problems about the use of the tool.

Task 8: 01/10/2018- 01/02/2019 Experimentation phase: Teachers implement DEPIT APP in schools.

Task 8: 10/10/2018-31/06/2019
COURSE: *MODULE II: DESING FOR PERSONALIZATION AND INCLUSION WITH TECHNOLOGIES. (COD 192147ALI 005) 22 hours* in semi-virtual modality. CEP coordinated this course in collaboration with USE. The aims of this course were to monitor and accompany teachers and schools during the experimentation of the beta version of the APP as well as get real examples of the use of DEPIT APP with students. Teachers elaborated multimedia material: Didactic Units with DEPIT APP and videos showing the implementation of DEPIT in their schools.

In order to achieve these objectives and facilitate peer to peer learning about the APP, CEP provided teachers with a discussion forum in Moodle platform and a common virtual workspace where upload the multimedia material they elaborated.

CEP included this course in the training schedule offered to teachers for the 18-19 academic year and certificated it.

Task 9: 12/12/2018: Workshop: The objective of this session was to exchange first experiences with the use of the App in classroom with the students , to share and to show first maps elaborated and to train new teachers that will start using the APP. This session was highly important for CEP staff since we could visualize the work executed and could help and encourage our teachers. The participating teachers understood the state of the art of the planning process through the APP in their lessons.

Task 10: Teachers elaborated a final report about the pilot phase through an evaluation Sheet for teachers.

3. Results of the pilot phase
The results of the pilot phase should allowed the identification of the positive aspects of the project and the App and the areas for improvement in both technical and pedagogical terms.
These results will also contribute with ideas and innovative solutions at about the dissemination and sustainability of DEPIT PROJECT**.**

3.1 Evaluation tools
To collect the results of this phase we have applied qualitative tools which allowed us to measure awareness, attitude and appreciation and quantitative tools which provided us with objectives data. The applied assessment tools are detailed below:
- Questionnaire about the teachers planning process

- Attitude Scale towards the use of ICT in general and DEPIT App.
- Meeting with teachers involved, teachers from other schools and CEP Technicians.
- Research workshop with the CEP team on charge of implementing the DEPIT project
- Quality of materials that teachers have elaborated with the app (Maps of the Didactics Units and videos)
- Results of courses Module I and Module II (qualitative and quantitative assessment)
- Round table with teachers involved
- Survey about Pilot Phase

In the following sections we will analyze the most significative results.

3.2 Questionnaire Results about learning-teaching processes and learning design.

In the framework of DEPIT project methodology, the starting point was updated information about the attitude of teachers towards the planning process and the difficulties they face when they programming. A short questionnaire was delivered to gather data. The results have provided conclusions that contrasted with Italian teachers answers can be considered as a generally widespread perception at European level. **The results substantiated the need of an instrument specifically designed for educational purposes, a structured support that provides flexible classroom management materials in relation to the contexts, facilitating personalisation and inclusion.**

We think that it is pertinent to inform about the results of this first survey in this report since we will be able to perceiver the advantages and benefits derived of the use of DEPIT app and the reflection of educators on their own professional practice.

Question 1.

WHY IS IT IMPORTANT TO DESIGN

TO FOSTER THE DAY TO DAY INCLUSION OF STUDENTS IN REGULAR CLASSROOMS

TO PLAN ACCORDING TO THE REAL NEEDS AND CIRCUMSTANCES OF THE SCHOOL

IT OFFERS A PERSONALIZED LEARNING

iT PROVIDES A STRUCTURE, A GENERAL OVERVIEW OF THE AIMS AND OBJECTIVES

TO CHECK THE STUDENTS UNDERSTANDING AND MAKE CHANGES IF IT IS NECESSARY

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Question 2.

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WHAT DIFFICULTIES DO YOU FACE IN DESIGN?

</div>

TO INCLUDE ALL THE EVALUATION CRITERIAS AND DISTRIBUTE THEM AMONG THE DIFFERENT

THE COORDINATION OF TEACHERS AND LACK OF TIME

TO ADAPT THE PLANNING TO DIFFERENT STUDENTS LEVELS AND CONTEXTS

TO FIND SUITABLE RESOURCES AND ACTIVITIES

TO BE COHERENT WITH THE CENTRE EDU PROJECT

TO DESIGN REALISTIC PLANNINGS (TIME, RESOURSES…)

Question 3.

<div style="background-color:black; color:white;">

WHY IS IMPORTANT TO REFLECT ON YOUR OWN PROFESSIONAL PRACTICE?

</div>

TO IMPROVE THE QUALITY OF EDUCATION

IT HELPS TEACHERS BECOME MORE SELF-MOTIVATED

IT HELPS TO TAKE DECISION ABOUT WHAT, WHEN AND HOW AND THE

IT GIVES US THE POSSIBILITY TO STOP AND MAKE CHANGES IF NECESSARY

3.3 Attitude scale results

The Attitude scale was delivered after the COURSE: *MODULE I: DESIGN FOR PERSONALIZATION AND INCLUSION WITH TECHNOLOGIES.*
The aim of this data collection instrument was to check the position and point of view of teachers after a first approach to the use of the DEPIT App.
It was structure in different sections, the first one was related to teachers attitude about the use of new technologies. The vast majority of respondents feel confident about their ability to

use ICT to design classroom programs and prefer a computer application instead of traditional way,

Question 1
I feel confident about my ability to use ICT to design classroom program
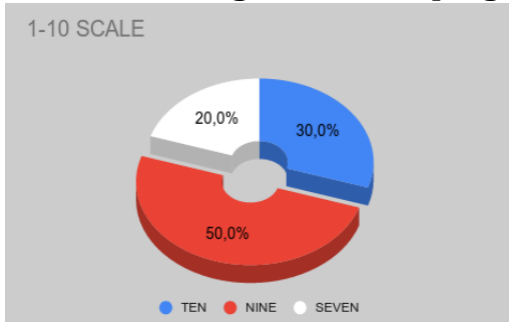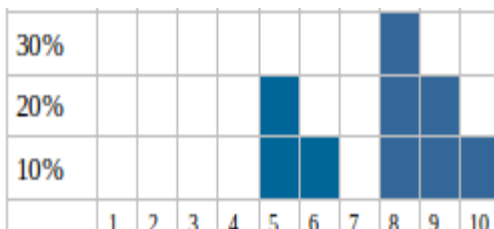

Question 2
I prefer traditional way instead of a new computer application
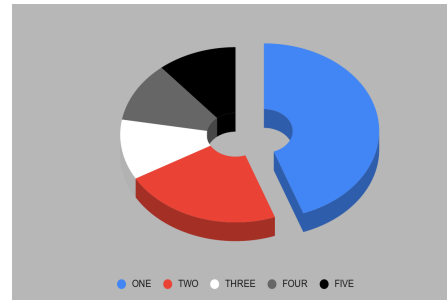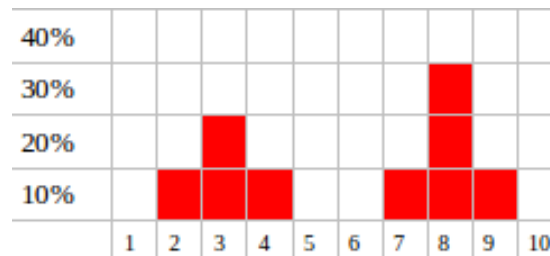

The second batteries of questions concerned to educators attitude towards DEPIT App:

Question 3
**I am sure that with time and practice I feel comfortable working with the DEPIT application**

Question 4
It alarms me to think that I could lose my job and a lot of information due to a failure of the DEPIT application
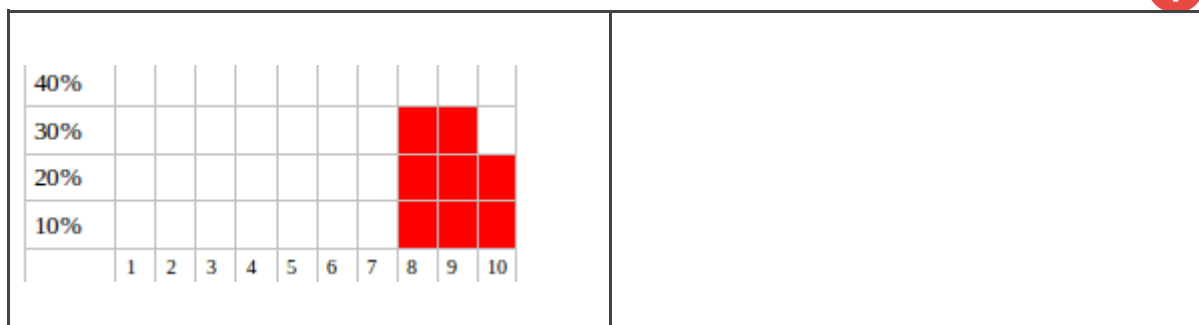

Question 5
I think that using the DEPIT application will save me a lot of tedious work when programming
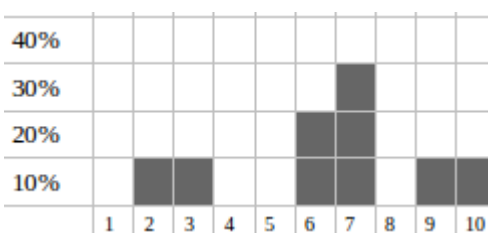
Question 6
I think that using the DEPIT application will improve my teaching activity
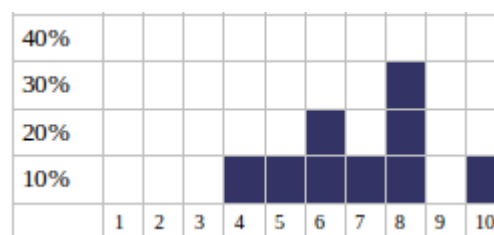
Question 7
I think that computer applications like this are necessary tools in educational settings

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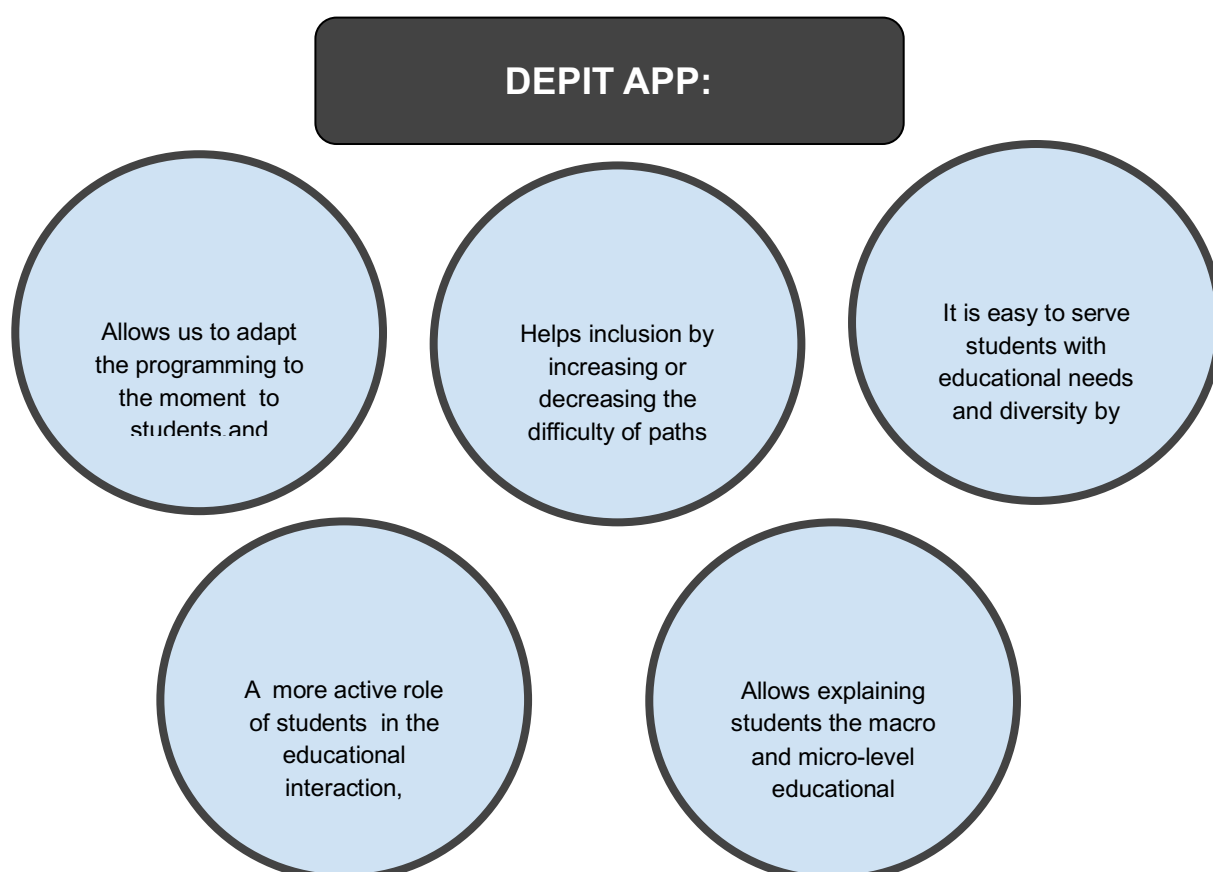Erasmus+ Programme
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On the light of the responses received to this first consultation, practically all of the teachers surveyed show **a highly positive attitude to DEPIT APP,** and although the percentages are very similar to the overall answers It is also notable that the most problematic aspect is related to technical issues, there is no consensus and It is important to note that a 40% of respondents feel they can lose work or information with the APP.

It is notable also that **100 per cent of teachers surveyed agree that DEPIT APP is very useful in educational environment.**

3.4 Round table results:

After the release of beta version, CEP conducted a workshop to show the app. The participants were teachers involved in the pilot phase, teachers from other schools and CEP Technicians. We end with a discussion or round table to gather guests points of view and collected feedbacks.

The discussion point was about "How DEPIT APP can support teachers programming and design". The results laid out below are significant:

DEPIT APP:

Allows us to adapt the programming to the moment to students and

Helps inclusion by increasing or decreasing the difficulty of paths

It is easy to serve students with educational needs and diversity by

A more active role of students in the educational interaction,

Allows explaining students the macro and micro-level educational

3.5 Survey Results about Pilot phase

At the end of the pilot phase of the APP DEPIT in the school involved, a questionnaire was delivered to give evidence of the thoughts of the teachers above all the elements of transformation, observed in a medium-short period, introduced by DEPIT App, both at the level of teacher practices and at the level of students learning processes.

The questionnaire was provided by the coordinator of the project through online forms. It consisted of 16 questions distributed in 4 sections:

The first section was concerning to the **personal and contextua**l data. Teachers were classified by school, class and subjects taught. The subjects are varied and the selection of teachers participants cover all the levels and all the fields of knowledge. The primary schools teachers teach all the educational areas included in the respective curricula of their schools.
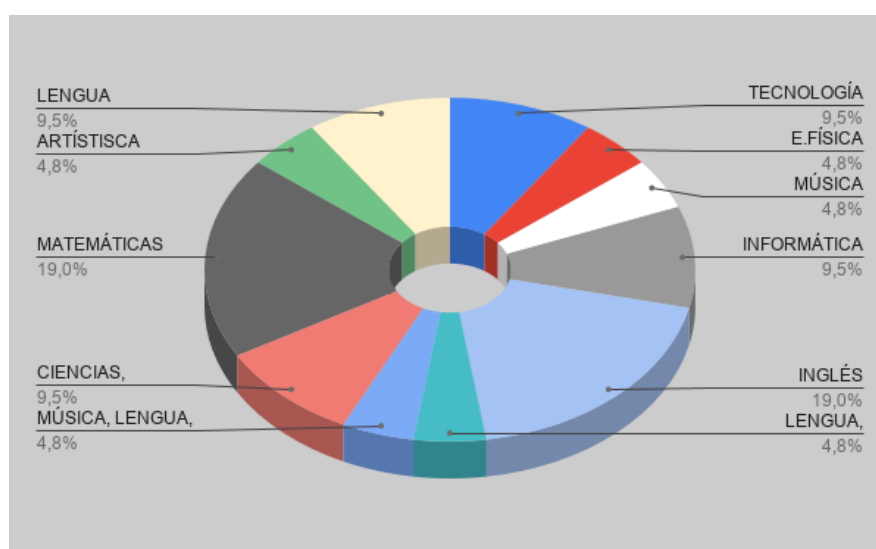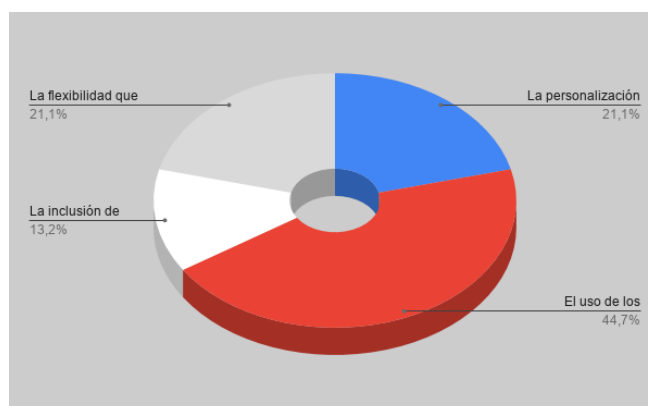

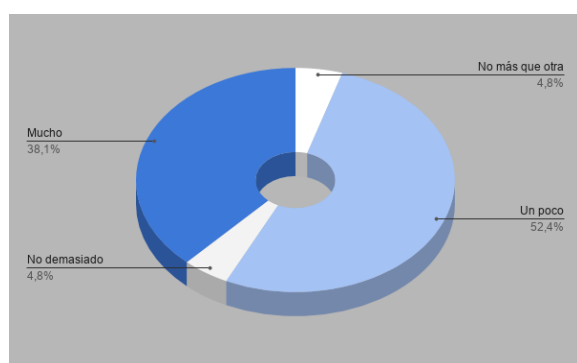**We can observe in the diagram a huge variety of subjects**

The second part was focused on **aspects related to teachers' professionalism.**

➢ The teachers designed between 2 and 14 sessions with DEPIT APP during the pilot phase. Almost 70% of the teachers interviewed used to designed their daily plans with other digital tools before DEPIT APP and elaborated digital material for their lessons. Most of them construct a different design each year in order to contextualize them.

➢ As far as the management of the APP, the survey results show that almost 80% of respondents consider that DEPIT APP help them to organize paths with multiple threads (contents, objectives, skills, outcomes)and facilitate the management and use of ICT

➢ All of respondents agree in a greater or lesser degree that APP DEPIT help them to:

■ The customization of learning to individual needs

☐ The inclusion of learners whose needs are difficult to manage

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☐ The flexibility you need in managing the best outcomes in class

🟥 The use of media to stimulate learning

La flexibilidad que 21,1%	La personalización 21,1%
La inclusión de 13,2%	
	El uso de los 44,7%

Management of media

Mucho 38,1%
No más que otra 4,8%
No demasiado 4,8%
Un poco 52,4%

The tool facilitate de management and the use of digital contents

Support in action

No 9,5%
Mucho 42,9%
Un poco 47,6%
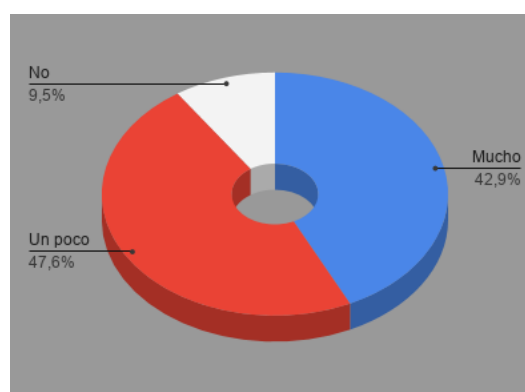
The APP help in maintaining the logical structure of teaching plans

The third part was focused **on students' learning and behavior.**

Practically all of the teachers surveyed, 90 percent, found that DEPT App help students to get an overview of the entire pathway and a 60 percent agreed that the app supports a lot students to connect the curricular activity with curricula planning and personalised plans. More than a half of teachers considered after the implementation of this tool that it significantly makes easier customized pathways and auto-regulation by single students or groups of student. The visualization of the paths is considered an excellent aspect to increase the commitment of students. The mapping provides additional incentive since students beforehand know that a class assignment will be and consequently it also improve motivation.

The last part of this section was focused on the reflections on professional postures implemented by the application. Through the analysis of replies received, the first relevant aspect concerns to how the APP leads them to a reflective practice about their usual working method. Educators place value on the continuous review of their plans: contents, timing,

activities resources or methodologies foostered and facilitated through the use of the APP as well as the possibility to make any mid-course modifications. Even during lessons, maps can be redesigned to make them more inclusive and realistic with the commitment foreseen for students.

Teachers involved appreciated particularly the variety of educational resources such as audio, video, and interactive activities that the App allows to design lessons since it gives respond to students with different learning styles and curricular level.

Finally, one of the most valued assets compared with others ICT tools is that in each module or lesson they can detailed objectives, evaluation criteria and key competences engaged with the local and regional educational rules and their School Educational project.

The four section was structure in a set of open questions about both pedagogical and technical aspect of the App that should be improve.

The weak aspects described were related with technical issues such as the text processor, the icons and the images.

Concerning to the pedagogical aspects, teacher suggested:

> ➔ Each student should accesses to the app with his own account, it is the best way to facilitate inclusion and adaptation to diversity and students will use it at home.
> ➔ It would be interesting to add tools for classroom management, some complements such us chronometer, classroom Timer, Collaboration software.
> ➔ To have the possibility of edit the curricular part of modules, sessions and activities concerning to objective, contents, competences or evaluation. It would facilitate the adaptation to the different educational systems.
> ➔ To included a section where teachers can share resources, experiences and work in a collaborative way.
> ➔ The resources elaborated with the app would be share in a site in order each teacher can modify and contextualized. It will make the APP different from an editorial digital book
> ➔ In the activities boxes, teachers should have the possibility to select different learning types (not only one)

The last question was about **sustainability,** educators surveyed were asked to reflect and suggest what kind of support they would need for using the DEPIT App after the end of the project and the piloting phase. Teacher made the following suggestions:

> ➔ To reach formal agreements with schools to use the APP
> ➔ To get funding from publishers, editorials, etc.
> ➔ To integrate it in the service package of Guadalinex Education software
> ➔ Through collaborative work, share DEPIT materials
> ➔ To offer a formative program/ learning pathway for teachers from CEP (Lifelong learning center) and University.

➔ To get support from local and regional educational services.
➔ To create a DEPIT Research Thematic (DEPIT) Team with all the staff involved in DEPIT project.
➔ To applied for a new European Project in order to improve the APP

3.6. Positive aspects of DEPIT APP related to the Didactic Unit elaborated:

Taking into account the quality of the maps elaborated for the teachers during the pilot phase as well as their opinions voiced in the forums and exchanges of experience sessions, we can can proudly state that that the most positive aspects of DEPIT App to design **the planning of programmes, lessons and tasks are:**

THE MOST POSITIVE ASPECTS	
It is easy, friendly and intuitive.	You have all the learning elements in an App (contents, resources, links)
It is fully synchronized with the net.	You can use different resources such as videos, texts, links, pictures
You can work with the app in a variety of devices (computers, tablet etc).	The design is visually attractive for students.
Students can link contents and tasks easily.	It is quite useful to design different paths (Using the colours of arrows)
You can show the content to the students in a schematic and organized way.	It allows teachers to elaborated creative Didactic Units and materials.
It allows teachers to elaborated creative Didactic Units and materials.	You can contextualize the contents and adapt them to the social/educational reality in our classrooms.

3.6 CONCLUSIONS

The APP is easy to use, intuitive and allows teachers to manage the curricular design, the lessons and the tasks in an integrated way. The most interesting innovation is related to Inclusiveness, so it would be essential that students can access individually and in a personalized way. Teachers participants in the pilot phase agree that the best asset and strength of the app is its visual appeal.

It will be necessary to improve some technical aspects, especially those related to guadalinex, the Ubuntu-based operating system promoted by the government of Andalusia and used in schools. CEP obtained permits from CGA (Andalusian Center for Management) to install the APP in the piloting schools and it is a challenge to integrate DEPIT APP in the service package of Guadalinex Education software. We believe it will be possible since members of local government has been informed about the development of the project and they will be aware of the final results.

In this sense, during the piloting phase we have constantly had in mind research on the contributions and compatibility of DEPIT APP to SÉNECA which is a platform that the Ministry of Education of the Andalusia has developed so that the teachers can carry out the entire management process that involves their work . This platform is provided with an app that helps teachers to: Elaborated Curricular relations maps that allows the management of the current curriculum, enables the development of units didactics through the balance between its fundamental subjects, both by areas and by competencies and related to student assessment, allows the improvement of evaluation processes in order to facilitate decision making on the level of competence reached by the students at the end of each cycle of the stage educational

Since part of the teaching staff participating in the experimentation phase are experts in the use of SENECA platform, **we can firmly affirm that the DEPIT app is not only compatible with the Seneca APP, but they also complement each other since the last one is less visual and is intended only for use of the teaching staff.**

Some teachers involved have worked with both platforms simultaneously and conclude that it would be a great bet to try to connect them, without a doubt it would improve the quality of both that would enrich each other.