

Descriptive report of teachers' needs and opinions on in-service training PR2

EXCIITE- Enabling eXtremely Creative, Inclusive, Inspiring Teachers for Europe Erasmus+ KA2 2021 project- Cooperation partnerships in school education

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Keywords	Teachers' needs and in-service training, teachers' opinions, inclusiveness, creativity, innovation, digital,
Description	The purpose of the PR2 report is to summarize teachers' needs and opinion in the field of teacher education and to deep the relations between macro-scenarios for different school systems innovation and teachers' opinion and perceptions about their professional development to make teaching-learning paths more creative, inclusive and inspiring learning environments. The first section presents a theoretical framework on teacher training to support effective professional development in the four main areas studied in the Best Practices. This is followed by a second methodological section, through which we share the process and indephs for our research purposes. The third section presents the results of the Surveys as they emerged from the analysis. Finally, some concluding reflections are presented that are useful for continuing the work on PR3.
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(inside front cover)

Exciite is of great interest to **UNIMORE** and in particular to its Department of Education and Human Sciences (DESU). The EXCIITE project represents an opportunity for DESU to consolidate and advance at European level its role as an institution committed to pre-service and in-service education for teachers and educational professionals. The DESU provides both undergraduate, graduate and postgraduate programs, and CPD courses aimed at training general education and special education teachers, educators, and pedagogical coordinators.

The implementation of the project would support **FREREF** to reach its primary goal, which consists of strengthening the connection between decision-makers, field operators, and researchers. The aims of the project, which helps to improve creativity, inclusiveness, and equity in European schools, fit the institutional goals of FREREF, an active member of the CHILD-UP project from the H2020 programme, dedicated to the integration of migrant pupils in the European school systems.

Fondazione Reggio Children (**FRC**) is a non-profit organisation that promotes the children's right to a high-quality education. For this reason, the project's goals – firstly consisting of developing a set of methodological and organisational resources for teachers to support a creative and meaningful transition of school systems while further developing the values of equity, diversity, and inclusion – fit with the aims of the organisation.

The Eötvös Loránd University (**ELTE**) and, in particular, its Faculty of Education and Psychology incorporates 2 kindergartens, 1 educational counselling institute for parents, and 3 primary schools, approximately attended by 2500 children. For this reason, a project that aims to address the key competencies, which are necessary for teachers to build a positive, creative and exciting learning environment within and outside the school building, is perfectly in line with the goals of a research institution that not only collaborates but directly involves educational institutions, target groups of the project.

The **Örebro** University (Sweden) has expertise in school development, lifelong learning, school dropouts, ESL, and NEETS. Furthermore, since one of the main focal points of the University formative offer focuses on Early Years and Primary Education Program, the project's aim of making learning experiences in schools more learner-centred, more inclusive, and more stimulating would allow Örebro University to design, study, and spread innovative educational practices.

The goals of the project related to the development of meaningful, creative, and interactive ways of using digital technologies in educational contexts fit the aims of **Universitat Oberta de Catalunya (UOC)**, whose interest in virtual education and e-Learning represents a central characteristic of the Institution.

The research project meets as well the needs of Istituto Comprensivo "A. Manzoni": composed of a preschool, three primary schools, and a middle school. In fact, the Instituto is on the one hand a research partner interested in developing innovative teaching methods, and on the other hand, with a staff of more than 170 members, it is an institution that directly involves the target group of the project.

TABLE OF CONTENTS

Descriptive report of teachers' needs and opinions on in-service teacher training and	
professional development	7
1 - Introduction	7
1.1. Background	7
1.2 The aim	9
1.3 PR2: Descriptive report of teachers' needs and opinions on in-service teacher training and professional development	ng 9
2 – Study of the reference scientific literature: what do teachers think about their profession development and school context of work	al 12
2.1 A Focus group to investigate the needs of teachers and their opinions: a theoretical framework	14
2.2 Focus group Protocol and Questions references	15
2.3 Focus group analyses and results	17
2.4 Final considerations	34
3 – Methodology and structure related to scientific literature	36
4 – Analysis of EXCIITE Survey	39
5 - Concluding reflections and further steps	50
Bibliography	52
Annex 1	55
Characteristics of Focus Group Interviews - Target: Primary school teachers	55
Annex 2	59
Characteristics of Focus Group Interviews - Target: Secondary school teachers	59
Annex 3	63
See the attached file	63

Descriptive report of teachers' needs and opinions on in-service teacher training and professional development

1 - Introduction

EXCIITE is in his second step of the project, aimed to a Strategic Partnership comprising academic, educational, research and training expertise, oriented toward making recognition, validation, training and exchange opportunities a normal practice throughout Europe, thus giving a contribution to the internationalization of qualifications in the teaching profession.

The school institution "A. Manzoni" coordinated this descriptive report.

The task of PR2 started from the good practices collected in the analytical report of PR1, to understand which organizational, methodological and content aspects are considered by teachers to be significant in in-service training, in relation to the impact on teaching-learning processes.

This reflection, despite the richness of the European scientific reference literature and the in-depth studies achieved with the approval of the partner countries as regards GPEs, brings with it the variable of heterogeneity in the various European countries both with regard to the initial training of teachers and with regard the ways in which learners implement their skills.

Understand how it developed in Italy, as elsewhere, a research and a history of in-service training of teachers is not a topic that can be summarized briefly.

It is generally assumed that initial training, even if raised to the level of an Upper secondary education or Post-secondary non-tertiary education and including a professional and practical component, can only provide a basis on which to graft professional development and now in all European countries the entry qualification is in the Master's degree. However, non-homogeneous rules remain and also with regard to the compulsory nature of training in every European country, very diversified laws are in force, especially on professional development.

This leads to different practices, which are difficult to summarize, and to complex experiences and perceptions of one's own role and the training needs that accompany it. In this report we will try to account for this complexity and to explain how, through successive steps, we have attempted to deepen the current situation and the teachers' expectations.

1.1. Background

Quoting from PR1's Analytical report:

"The project was set up as a response to recent changes in the World which have also had an impact on education: the coronavirus pandemic forced the emergent use of distance learning. This reinforced the need to recognize and address the 'core competence area' of in-service and future teachers at European level and to introduce some innovations (Council Conclusions on European teachers and trainers for the future, 2020).

Furthermore, research data at European level show that a high percentage of teachers express moderate to high levels of training needs in areas that would enable them to develop more appropriate, diverse, and innovative teaching practices; teachers require new competencies, including managing cultural and linguistic diversity in the classroom, teaching in a technology-rich environment and adopting collaborative teaching practices (European Commission/EACEA/Eurydice, 2015; European Commission, Directorate-General for Education, Youth, Sport and Culture, 2019).

The capability of teachers to generate a positive, creative, and exciting learning environment is strictly related to teachers' competences and their ability to stimulate learners' agency and motivation to learn. However, not all teachers are equally well prepared and different capacities have caused serious damage not only to the learning achievements of a significant proportion of the learners' population but also to the potential of social inclusion that collaborative learning processes may generate when adequately supported by competent teachers. The mediation of digital technology in recent times, rather than supporting learners' interactions and exchanges through collaborative project work, has further widened the inclusion gap already existing among children belonging to families with different social and educational backgrounds. The project has an approach to social inclusion that is not particularly based on enhancing access - in principle all children attend compulsory education, and therefore it is not focused on specific target groups; it is rather focused on supporting each learner's progress and achievements by building on the identification of specific strengths and motivation and therefore stimulating children's agency as a key for social inclusion and learning achievement.

The COVID-19 crisis offers a unique opportunity to reconsider teacher policies and introduce some innovations, as demonstrated by the recently adopted (May 26, 2020) 'Council Conclusions on European Teachers and Trainers for the Future'. The need to strengthen the 'basic skills area' of teachers has been recognized, identifying and validating key competences, but there is still no European-wide solution on how to support in-service and future teachers".

The PR1 Analytical Report has concluded focusing on some aspects related to how identify teachers' needs. To summarize, it has been found, thanks to the study of Good Practises, that:

- needs can be detected before the training proposal or during the program;
- among the most commonly used tools to detect training needs is the use of online Survey on teacher needs;
- for local training proposals, an identification of needs will be made by interview, discussion, focus group, observation of the group, in order to better know the starting point of the group, to adapt the training to the context, and including the concerns and motivations of the group;
- in the case of collaboration between several training institutions, the overall training plan could be developed according to the principle of continuity, consistency and constant exchange with different actors;
- in the case of open platform, teachers identify their own needs and look for material to use on the platforms;
- in the case of university courses for pre-service teachers, students apply for the course. When research is conducted, investigation can be conducted to determine the current situation².

The short presentation of good practices in the PR1 report had certainly illustrated some current contexts of teachers training and help the project to be inspired in setting a new agenda for professional development.

Additionally, the Good Practice Elements, both specific and transversal petal, identified in this report will be the basis of the PRR3 Guidance Tool for Teachers, but they cannot exhaust the research that enters, thanks to the direct contact with professionals of the educational sector, in the core of the theme: the collected practices, in fact, need to be able

7

¹ PR1, "Analytical report of good practices and intervention models for teacher training", January 2023, p.6 and 7.

² Cfr. "Analytical report of good practices and intervention models for teacher training", p.34-35.

to define a complete cross-section of the teachers' needs of a more direct investigation. This in-depth analysis concerns the opinion of the teachers which is collected in this second phase to question them on the teaching practices in the four dimensions proposed by the project.

1.2 The aim

Starting from an overview of the current context, the aim of the PR2 was:

- Produce a Descriptive report on teacher training needs related to the four target competence areas, based on a transnational survey, further enriched and detailed by the use of qualitative approaches. The report will also examine the ideas and practices that school managers have regarding in-service teacher training.

In addition to promote the competencies essential for teachers' professionalism, with a focus on the areas of creativity, inclusion, innovation, and digital literacy. EXCIITE wants to address which could be the best and more functional resources suitable for supporting in-service teacher training in their continuing professional development. In particular, this Descriptive report aims to emphasize the point of view of teachers on their agency in schools, on the effectiveness of training offer and about perceived impact of teacher training institutions regarding teachers' Continuing Professional Development (CPD)

1.3 PR2: Descriptive report of teachers' needs and opinions on in-service teacher training and professional development

The PR2 Report explains the important strand of the project connected with the PR1 project results, in order to start directly from teachers' beliefs to understand how to build new context and innovative instruments to implement teachers' opportunities to train themselves and promote self-consciousness about their needs. After the study of the teachers' good practices collected in the previous months, the PR2 set up an instrument to deep the teachers' professional path and their opinion about training. We stand out, working on these aspects of the projects and thanks to the results of the work we are going to present, that there is therefore a need to renew the professionalism of current and future teachers, especially in the four competences we are referring to. The need to be creative, inclusive, digitally literate, innovative is something that teachers are facing in everyday situation into the classrooms and they should be able to increase their competences in order to meet the new challenges of education. There is also a need for academic and pedagogists to move towards new theoretical choices and teaching strategies, capable of improving the quality of teachers' training to implement the results in compulsory education.

Starting from this idea to clarify how these changes could be epitomized, fostering a transition from "notionism" to "competences" and integral formation of students, a focus group protocol was the starting point to a deeper reflection, supported by an exploratory survey conducted in the five countries partners in the Erasmus + "Exciite" with 250 teachers of all school levels.

To build this in-depth report, the IC "A Manzoni", with the collaboration of all the Partners, analysed how to collect information relating to these aspects, taking into account the heterogeneity of the contexts that immediately presented the most complex element to take into account.

In the light of the comparisons held in the Kick off meeting and in the online meetings, it was decided to make a first qualitative reading of the needs and perceptions of teachers belonging to the partner countries, in order to better construct the survey aimed at European teachers.

In this regard, together with UOC, it was decided to start from the study of the European reference literature on the training of in-service teachers, to build survey categories that were validated by the scientific literature and then deepen the beliefs of the teachers involved.

In summary, the following operational steps have been defined:

- 1. Study of the reference scientific literature;
- 2. Study of a theoretical framework for the construction of a Focus group to be administered in each partner country;
- 3. Quantitative-qualitative analysis of Focus groups;
- 4. Identification of new survey elements related to the 4 reference skills for the formulation of the survey;
- 5. Formulation of the survey, taking into account the categories identified thanks to the reference literature and the analysis of the Focus groups;
- 6. Dissemination of the Survey in Europe;
- 7. Survey analysis;
- 8. Interview with some school leaders from the partner countries.

The results of the Focus group analyses were discussed in the EXCIITE PR2 Transnational Meeting, held the 7th – 8th November 2022 in Reggio Emilia, Italy, organized by MANZONI, with the collaboration of UNIMORE and UOC.

From the comparison among partners, reflections emerged that better underlined the focus to be kept in the survey as well as the different perception among teachers regarding some aspects of their professional development. However, the objective of highlighting elements of agreement and emergent requests deriving from common needs was achieved. This made it possible to look at the Survey Draft, presented there and discussed in the subsequent online meetings, with greater awareness, also with regard to the four skills, specific and transversal "petals", that characterize the EXCIITE project in an innovative vision.

This in-depth study and direct knowledge of teachers' opinions will help to trace the field of experience on which to build the Hub for teacher training, consisting of a web repository of multilingual learning resources for teachers (PR3) and to help school institution and universities to improve innovative settings, instruments, collaborations in order to develop and practice creativity skills, learning innovation, self-regulatory learning, appreciation of diversity and social inclusion (PR4). Finally, better understand practitioners and their beliefs would facilitate, in our attempt, an alliance of teacher education institutions capable of collaborating transnationally and supporting the exchange of resources and good practices in the field of in-service teacher education, to enhance a change in policy and make it a cross-country issue to accelerate the innovation regarding the school systems of Europe, as defined at EU and National/Regional level (PR5). (See Figure 1).

All partners have contributed in administer the focus groups, draw up the summaries following common protocols, administer and disseminate the survey.

The analysis of the Focus Groups was conducted by the researchers of the "I.C. A. Manzoni" and the creation of the analysis dataset of the Survey saw the collaboration of UNIMORE. The analysis was carried out by MANZONI, with the collaboration of UNIMORE. The Descriptive report is written by MANZONI.

The draft will become final after a process of revision and peer review.

After the validation phase, the survey results will be made available for the next phases of the project, as a reference document allowing to give meaning and guidance to all subsequent activities.

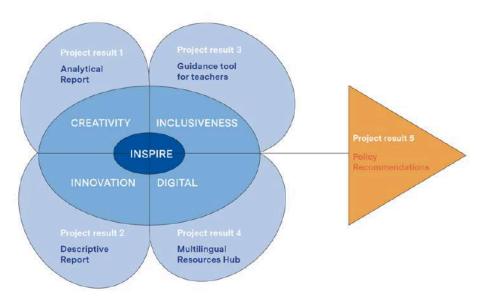


Figura SEQ Figura * ARABIC 1: Excite project's petals and project results (PR1Model elaboration)

The second section presents some assumptions of the scientific literature on teacher training professional development in Europe. This is followed by a second methodological part, through which we share the process and rationale for the protocol of Focus Groups and the methodology applied for the analysis of functional elements for our research purposes. The third section presents the SURVEY and the categories as they emerged from the analysis of data.

At the end, some reflections will be introduced on the teachers' opinions and their needs that must be taken into account in the continuation of the work.

2 – Study of the reference scientific literature: what do teachers think about their professional development and school context of work

The starting point of the reflection on the issues of the new frontiers of training needs for teachers in service and their professional development is the consideration of some limits and gaps of contemporary education, both referring to "external" factors and to "internal" factors. The "external" factors had been one of object of discussion during the Kick off Meeting: it has been discussed the disparity of resources between different schools and countries, the lack of adequate provision of digital devices and compensatory instruments during the pandemic, the loss of faith of teachers in the system which does not value their professionalism. The not always adequate amount of support that school leaders and territorial committees can give to a teacher and the context in term of resources to foster and improve the quality of education are some of the main issues. Otherwise, the current educational crisis evokes that, at present, teachers' needs are little known and little investigated by pedagogy too. Institutions in general are still proposing an idea of training intended as a transmission of information and increasingly specialized notions; they are often too numerous and fragmented and run the risk of confusing and bringing onto already disciplinary-type paths track, teachers who need new and powerful tools to face contemporary society and its challenges. The "internal" factors were also discussed: in Europe school curricula are sometimes very diversified, closely linked to disciplines, connected to traditional settings and methodologies that still prefer the use of pen and paper assessments and the comforting support of a good textbook. However, due to some cultural stereotypes, school curricula are still unbalanced on the development of the cognitive dimension at the expense of the affective, creative, and relational dimensions of the individual, with an evident consequence in fragile inclusion and lack of innovation: at the end, teachers and the mass media often reports on the general malaise in schools. The role and the impotence of some teachers were at the centre of the debate, too. It is easy to witness a sort of "limit", or "impotence" in the educational relationship, referred by teachers, that it is not necessarily part of "lack of notions", "education" or "tools" suitable for the implementation of an inclusive and efficient teaching and a collaborative professional environment.

The theme of improving teacher training as a strategic lever to act on the results of education systems has been recurring for decades in official documents, from the well-known UNESCO Recommendation dated 5 October 1966 up to the most recent lines adopted by the European Community, which substantially coincide with those of the OECD and have also informed the vast surveys conducted by these bodies. From the strategy adopted by the Lisbon Council of 23-24 March 2000 to make Europe by 2010 "the most competitive and dynamic economic system knowledge-based", particular objectives have arisen, among which are that of investing in the training of teachers and trainers, "removing obstacles to teacher mobility and attracting quality teachers".

The "Education & Training 2010" Program (2002) lists as objective 1.1 «improve the education and training of teachers and trainers» The resolution of the Council of Europe of 27 June 2002 on lifelong learning invites member states to develop initial training and teachers to acquire the necessary skills to play their role in the knowledge society. Following the recommendation contained in the interim report (February 26, 2004) of the "Education & Training" program on progress towards the Lisbon 2010 objectives, the European Commission has adopted since 2005 a charter of "Common European principles for teacher competences and qualifications", in order to guide policy-makers at national and regional level³. Among the common European principles is that the teaching profession entails lifelong learning: teachers are provided with support to continue their professional development throughout their careers. Teachers themselves and their employers recognize the importance of acquiring new knowledge and are able to innovate and use the information effectively.

Teacher training systems are not always well equipped to respond to these new needs. A recent OECD survey⁴ shows that almost all countries complain about gaps in teaching skills and difficulties in updating them. Gaps relate in particular to the lack of skills needed to deal with the new evolution of education (including individualized learning, preparing pupils for autonomous learning, the ability to manage heterogeneous classrooms, the preparation of learners for the optimal use of ICT, etc.)⁵.

"In many Member States there is little systematic coordination between the various elements of teacher education, leading to a lack of coherence and continuity, in particular between the teacher's initial professional education and subsequent further professional development, continuous training and professional development; often these processes are not related to academic development and improvement or research in teaching. There is very little incentive for teachers to continue updating their skills throughout their professional career. Investment in the training and continuing education of teaching staff is very limited throughout the European Union, as is the continuing training available to teachers during their career. Continuing teacher training is compulsory in only eleven Member States, however teachers are not explicitly required to undergo this type of training in all of these countries8. Where there is the possibility of following training, this generally does not exceed 20 hours per year. In no Member State does the compulsory minimum training exceed five days per year and in most countries only three days of training per year are compulsory. Furthermore, the fact that continuous training may be compulsory does not in any way indicate what the real participation rate is. As regards new teachers, only half of European countries offer them some kind of support at a systematic level (e.g. integration, training, mentoring) during the first year of teaching. Only in a third of countries are there specific contexts to help teachers who have difficulties in carrying out their work"6.

Therefore, to better understand the point of view of teachers, regarding the theme of in-service training, we analysed the in-depth work carried out in Europe in two important researches that reconnected the audience of European teachers with surveys and interviews. This work was taken as a theoretical reference: De Sanctis G., (2008) TALIS 2008, *Italian teachers between professional growth needs and resistance*, FGA Working Paper n.24, 2/2010 and Baggiani, S. (2022). *Continuing professional development of teachers in Europe. Patterns, participation, status and planning at school level*, Paper.In Yul Reasearch, Vol. 3 num. 5. Pp.357-372.

³ European Commission – Directorate General for Education and Culture, *Common European Principles* for Teacher Competences and Qualifications, Bruxelles, 3 febbraio 2005.

⁴ OECD, Teachers Matter: Attracting, Developing and Retaining Effective Teachers, Paris, 2005.

⁵ Cfr: Zini, A. (2012) La normativa italiana, i documenti europei e la riflessione teorica sullo sviluppo professionale degli insegnanti. P.6. Translation by Landini A..
⁶ Ibidem.

2.1 A Focus group to investigate the needs of teachers and their opinions: a theoretical framework

It should be specified that the positivistic paradigm is, in our opinion, inadequate to investigate some areas of education. Much of the essence of the educational phenomenon is as a unique and unrepeatable epistemic device that cannot be easily seen through the positivist lens.

Epistemic ecological paradigm-related guidelines are best suited to investigate the world of education.

That is why we chose to use tools with quantitative-qualitative standards to investigate the particular scope of educational research represented by the ethical education of values within a framework of full professional and educational well-being. There were several epistemic ecological paradigm-related underpinnings, which included a phenomenological approach, a critical approach, and a participatory approach. These approaches express different philosophies, which are not mutually exclusive.

In this research work, in particular, we favoured a phenomenological-hermeneutic interpretive approach⁷, which takes account of empirical data.

The phenomenological hermeneutic paradigm aims at the elaboration of scientific reports defined "interpretative descriptions" of interpretation. It is mostly this paradigm, which developed theories of phenomenological research as it applies to education.

The starting point was the experience to investigate networks and meanings that participants identified. The phenomenological methodology excludes generalizations.

The essence of the phenomenological orientation is to be faithful to the phenomenon itself; the epistemic imperative is to "go to the things themselves". Things are not perceived as factual but as elements of consciousness, objects of intuition, the essence of things revealed to the consciousness. The researcher should, according to this paradigm, study things in their setting, knowing however that they can manifest themselves in different ways according to the ways of accessing them. In order to be faithful to the phenomenon, researchers should refer to the principle of evidence; and the authors adhered to this principle. They also recognized that phenomena do not always appear to be completely transparent to one's gaze but rather that everything has its own specific way of transcending appearance.

This made the researchers try to create real contexts of education during the Focus groups: the goal was to recreate concrete situations, which, set as authentic tasks, would allow teachers to project themselves into a specific teaching context, linked to the 4 skills of the project, to identify and promote empowering strategies that can contribute to new improvements for the professionals involved.

It was therefore a matter of following a process and not of certifying a product, placing the action within the context of the Grounded Theory (Glaser & Strauss, 1967) in a complementary perspective that takes into account the fragility of the design, as well as the points of strength. The generative question that guided the research was whether peer experience, in terms of research and self-education, produces significant changes in the vision and transformation of evaluation paradigms and practices. From this non-static question, it was decided to propose the Focus groups to collect data and identify some key concepts of the experience in progress. The attempt was to identify central categories that would lead to a revision of the theories that emerged from action-formation and that would clarify what kind of processes underline the ongoing transformations:

1. original Focus groups on the training needs of teachers, related to the four target competence areas, were conducted in Italy, Spain, Sweden, Hungary.

13

⁷ Fuster G.D.E., (2019). Qualitative Research: Hermeneutical Phenomenological Method. Propósitos y Representaciones, 7(1), 201-229. Doi:http://dx.doi.org/10.20511/pyr2019.v7n1.267

- 2. for each countries, we collect 2 Focus groups, one involving primary teachers and one secondary teachers, first grade (Middle school);
- 3. the collected summaries were analysed and organized in a synthetic report problem: verify if the elements emerged from the PR1 descriptive report and from the study of the scientific literature, on the professional needs of in-service teachers (found in these specific groups, divided by school grades) presented elements of continuity or differentiation

2.2 Focus group Protocol and Questions references

At the beginning of June 2022 IC Manzoni/UOC Proposal was to quickly proceed for the administration of the Focus Groups, as agreed in the previous meeting. The protocol was prepared distinguishing different grades of school (Annex 1 and Annex 2): the PR2 planned to organize 2 focus groups per country, in the mother tongue of the reference country.

The focus groups have been structured differently according to the school level keeping in count that the authentic tasks designed to stimulate a concrete and targeted reflection of the participants would have been calibrated on activities and experiences consistent with the reference ages and with the 4 areas of competence defined by the petals of the project:

In a specific folder were included, in addition to the protocols, two articles in English on focus groups and the theoretical reference framework for the protocol, the definitions of the petals agreed between PR1 and PR2, the analysis protocol with the proposed criteria.

This was the final roadmap for the PR2:

- **June**: administration of the Focus Groups
- **July/September**: analyses and summary in English or the results, to be sent to Manzoni
- October: study and structuring of the Survey
- **November**: Trasnational Meeting in Reggio Emilia

The research group was aware that the translation of the focus groups would have created variables and possible byas, however the use of a common administration protocol, derived from a clear theoretical framework, and some criteria for the creation of the final Summaries, to be delivered for the comparative analysis, seemed to be sufficiently consistent with the system and with the objectives set. On the other hand, it would not have been possible to find a sample capable of speaking with due confidence in English on the subject in all the partner countries, just as the use of the mother tongue would have ensured a better understanding of the questions and functional confidence in the formulation of opinions and of the participants' reflections.

According to Krueger (2002), the Characteristics of Focus Group Interviews need careful precautions for:

- participants
- environment
- moderator
- analyses and reporting

All the partners agreed to follow the framework proposed. The instructions included guidelines to be read before starting in order to make communications, management and registration methods as uniform as possible. The Focus group was structured starting from some references relating to the scientific literature of reference for teacher training in Europe and that relating to the 4 specific key competences of EXCIITE:

Question 1 – What characterizes a good training course?

Question 2 – How to get success in ...? What kind of training do you feel you might need/suggest?

References for the authentic tasks about:

- a. innovation
- b. creativity
- c. inclusion
- d. digital competencies

Question 3 – What are the needs that you perceive in this particular moment of your professional life?

In the table below the theoretical references connected to the tools for formulating the questions.

QUESTION	REFERENCE TOOLS	SECTION/SUB SCALE/FACTO R	ITEM
Question 1 – What characterizes a good training course?	OECD (2018), "Teaching and Learning International Survey (TALIS): Teacher Questionnaire", http://www.oecd.org/education/school/TALI S-2018-MS-Teacher-Questionnaire-ENG.pdf.	Professional Development	22 (PD activities codification); 26 (characteristic s of PD activities that had the greatest positive impact on your teaching); 28 (barriers to participation in professional development)
Question 2 – Ho References	ow to get success in ? What kind of training do y	ou feel you might	need/suggest?
a. innovation	Creative Teaching Inventory (CTI – Palaniappan, 2009) Metacognitive Awareness Inventory for	Innovative Procedural	2; 8; 12; 20
	Teachers (MAIT – Balcikanli, 2011)	knowledge	2; 0; 12; 20
b. creativity	Teacher's creativity nurturing behaviour (TCNB - Sharma & Sharma, 2018)	Abstraction; Critical thinking	
	Teaching for Creativity Scales (Rubenstein, McCoach & Del Siegle, 2013)	Teacher self-efficacy; Student posture	
c. inclusion	Index for Inclusion (Booth & Ainscow, 2002)		
	Ohio State Teacher Efficacy Scale (OSTES – Tschannen-Moran & Hoy 2001), LONG-FORM Teacher Beliefs	Engagement; Strategies	1; 4; 6; 9; 12; 22 17; 18; 20; 23
d. digital competencies	SELFIE for TEACHERS (European Commission)	all	

Question 3 –	OECD (2018), "Teaching and Learning	Professional	27 (areas of
What are the	International Survey (TALIS): Teacher	Development	professional
needs that	Questionnaire".		development
you perceive			needs)
in this			
particular			
moment of			
your			
professional			
life?			

Tabella 1Questions' reference

2.3 Focus group analyses and results

As we mentioned before, some critical aspects are present in the design. Also the phase of Analysis and Reporting may have been conditioned by variables on:

- Systematic analysis
- Verifiable procedures
- Appropriate reporting

On the other hand, the analyst must take the focus group data and find what is meaningful to the purpose of the study. One of the skills that beginning analysts must learn is to match the level of analysis to the problem at hand. In fact, not all studies require the same level of analysis. To better hit the target it was decided to look for the major themes that cut across groups and those gems that might have been mentioned by only a few people. The analyst can only do this by being clearly grounded in the purpose of the study (Krueger, Casey, 2015).

Hence, the PR2 group compared and contrasted results by categories of individual focus groups:

- looked for emerging themes by question and then overall;
- constructed typologies and diagrammed the analysis;
- analysed the scientific literature to identify themes and indicators that could be consistent with what was emerging and could provide tools validated by previous surveys.

From the analyses of the summaries a table (See Annex 3) was structured by means of a pre-filled grid. This description form and the attached filling guidelines were the basis of the information collection that 4 researchers carried on individually. Summaries were then exchanged between the 4 researchers to ensure a double check on emerging categories.

The analyses started from Primary school Focus groups, followed by the Secondary school Focus groups. In this part we focused on common elements.

PRIMARY SCHOOL TEACHERS

1. CATEGORIES OF NEEDS

The common categories of needs that emerged during the primary school teachers' focus group are presented below. The *Criteria are taken from TALIS 2008,TALIS 2018, Teaching and Learning International Survey (OCSE, 2009)*

• COOPERATION AMONG PROFESSIONALS AND FAMILIES (HUNGARY - SPAIN - ITALY) • INCLUSION (HUNGARY - SWEDEN - ITALY) • CLASSROOM MANAGEMENT (SWEDEN - SPAIN - ITALY) • USE OF DIGITAL PLATFORM AND TOOLS (HUNGARY - SWEDEN - ITALY)

Teachers of primary school defined their Professional Development Needs (Areas). Here are some examples of the participants' interventions:

COOPERATION AMONG PROFESSIONALS AND FAMILIES

(HUNGARY - SPAIN - ITALY)

"It is crucial to cooperate among professionals" (e.g. teachers, psychologists, development teachers), to share new skills, good practices and knowledge with colleagues and the management team

"it is necessary a cooperation with parents": parents should be involved in the development, in the day-to-day work.

"Relational/communicative competence with colleagues, parents and students".

NEEDS EXPRESSED: Listen to and share Courses on circular communication involving all those involved in the school/family systems

INCLUSION

(HUNGARY - SWEDEN - ITALY)

"learning about the cultures of different countries" and promote "a whole school approach to student health (across professions)"

Other important emerged topics are the various forms of emotional distress, autism and SLD.

"Reading emotions to create authentic relationships"

"Course that helps the observation to understand the potential of children. Course for the recognition of verbal and non-verbal codes to meet the needs of all children".

NEEDS EXPRESSED: know theoretic concepts on inclusion and inclusive works about the weaknesses of children; develop inclusive methodologies to promote well-being at school

CLASSROOM MANAGEMENT

(SWEDEN - SPAIN - ITALY)

"leadership in the classroom, understand what is happening to teachers not from theory but from their situated knowledge and experiences into the class".

NEEDS EXPRESSED: It arises from a need linked to its own disciplinary field or to the management of relational dynamics within the class.

USE OF DIGITAL PLATFORM AND TOOLS

(HUNGARY - SWEDEN - SPAIN - ITALY)

- Use of appropriate digital platforms, digital tools, online programs (3 times), robotics, properly installed wi-fi, Lifelong Learning /LLL/ digital platform skills.
- Different aspects of digital competence. There are multiple challenges and teachers have different needs based on their own digital competencies: Innovative teaching is one of them.
- Digital culture.

"A teachers must be pedagogically digital literate and master what is required from the students" (Sweden)

"Training course on digital for documentation purposes and with the function of self-assessment"

"Course for cataloging the various software to be able to use the most suitable for the purposes of the moment"; "Course on the risks of web surfing". (ITALY))

"Issues related to digital wellbeing and the critical use of TIC are needed" (SPAIN)

NEEDS EXPRESSED: Training courses on digital tools and pedagogical/digital culture and innovative teaching methods with a focus on attention, motivation and web surfing risks.

2. TYPES AND ORGANIZATIONAL ASPECTS OF A TRAINING ACTIVITY REFERRED TO YOUR NEEDS (theme emerged in the focus group) and PERCEIVED IMPACT OF TRAINING ACTIVITIES (TYPES)

The types and organizational aspects of a training and pedagogical/digital culture and the perceived impact of training activities emerged during the focus group are presented below. The riteria are taken from TALIS 2008, TALIS 2018, Teaching and Learning International Survey (OCSE, 2009)

CORRESPONDENCE BETWEEN THEORY AND PRACTICE (problem-based approach)

(ALL NATIONS INVOLVED)

TIME MANAGEMENT OF THE TRAINING COURSES

(SWEDEN - ITALY)

VISITING OTHER SCHOOLS

(SWEDEN - SPAIN - ITALY)

MENTORING

(HUNGARY - ITALY)

USE OF DIGITAL RESOURCES

(HUNGARY - SWEDEN - ITALY)

COOPERATIVE PRACTICES

(SWEDEN - HUNGARY)

The participants highlighted the organizational aspects and the types of training of in-service employees that they find most functional. As can be seen, there is a fair amount of agreement on active and coaching methods:

CORRESPONDENCE BETWEEN THEORY AND PRACTICE (problem-based approach)

(SWEDEN - SPAIN - ITALY - HUNGARY)

"It is important to bear in mind the idea of accompaniment, this back and forth between theory and practice is what should be woven in because sometimes transformations in schools are made largely by pedagogical intuition" (SPAIN)

"It is important that the training courses are adjusted to different school realities, It should be structured with a theoretical part and a workshop in presence; It should deepen the proposed topic and not only give generic indications/inputs" (ITALY).

"The course, always with a theoretical part and a practice could also include the presence in the classroom of the trainer" (ITALY)

TYPES AND ORGANISATIONAL ASPECTS: a training proposal must balance theory and practice, ensuring coherence e reciprocity among the modules, adaptability to the context and presence during the activities of the teacher trainer.

TIME MANAGEMENT OF THE TRAINING COURSES

(SWEDEN - ITALY)

TRAINING DURATION:

- -The teachers agreed that it was important to consider the time for a training course.
- -Depending on the topic the course can consist of a larger number of short elements spread out over a semester or a few comprehensive meetings
- -The weekly duration of 4 6 meetings with final feedback and possibility of subsequent discussion between teachers. Ultimately the course should not be too long or should be arranged in modules spread out over time.

TYPES AND ORGANISATIONAL ASPECTS: the duration may be variable, but not of a pair of modules or isolated modules. requires time distributed between real activities and comparison between colleagues

VISITING OTHER SCHOOLS

(SWEDEN - SPAIN - ITALY)

"it would be interesting to learn from other schools in different parts of the country or other countries" (SWEDEN).

-Some of the teachers thought it would be interesting to visits other schools to learn what is being done in other contexts, "to see what is being done in other realities and improve knowledge on transference of learning" (SPAIN)

"Visit of innovative schools with alternative settings" (ITALY)

TYPES AND ORGANISATIONAL ASPECTS: possibility to observe and visit other school context and settings

MENTORING

(HUNGARY – ITALY)

teacher – facilitator: Learn the most suitable methodologies from a more experienced colleague

"Collaborative work and mentorship were regarded as good methods for learning for new teachers, especially training of leadership in the classroom and to create structures in the classroom, eg. start and ending of the lessons" (SWEDEN)

"A good practice is to create tutors/mentors related to a topic. A small group of teachers who works on a topic teaches/informs another group of teachers on this topic. Then, someone of the new mentors do the same with another group of teachers, in order to trainee all the school (SPAIN)

TYPES AND ORGANISATIONAL ASPECTS: Mentoring by experienced colleagues

- USE OF DIGITAL RESOURCES

(HUNGARY - SWEDEN - ITALY)

"There are different thematic Facebook groups for teachers, sharing lots of exercises, ideas. Beyond informal Facebook group, a so-called Genius Portal is also available for free: on these platforms all disciplines are covered, interactive learning materials are freely downloadable in pdf format". (HELTE)

"Online courses are more flexible and easier to fit in the daily work life hence more realistic".(SWEDEN)

"Good proposal of webinars and tutorials" (ITALY)

TYPES AND ORGANISATIONAL ASPECTS: teachers find Facebook pages, thematic websites, informal teacher's groups, online webinars and tutorials, a simple and useful way to exchange materials and ideas, but also to train.

COOPERATIVE PRACTICES

(SWEDEN - HUNGARY))

- asked for more knowledge on how to work collaboratively and yet be structured. Teachers request cooperative techniques.

TYPES AND ORGANISATIONAL ASPECTS: cooperative learning also appears to be considered useful in teacher training.

3. OBSTACLES AND INCENTIVES TO PARTICIPATION IN PROFESSIONAL DEVELOPMENT ACTIVITIES (FINANCIAL OR EMPLOYMENT SUPPORT)

The obstacles and incentives to participation in professional development activities emerged during the focus group are presented below. The criteria are taken from TALIS 2008, TALIS 2018, Teaching and Learning International Survey (OCSE, 2009 and theme emerged in the focus group as well):

COUNTRY	OBSTACLES:	INCENTIVES:
HUNGARY	open scepticism about the function of such creativity training among participants. disagreement in the group concerning the existence and availability of knowledge sharing platforms (only for 1 is a good idea) most Hungarian schools do not have sufficient numbers of computers, in smaller schools, in smaller municipalities that cannot provide facilities (digital divide)	mostly external resources (local governments, EU funds and families) were used to develop. Group members agreed that specific training for drafting Erasmus proposals would be more useful for Hungarian teachers rather than general training on creativity and inclusion.
SWEDEN	Time is something that worries Swedish teachers in general as they are facing work and curricula overload. However, some teachers agreed that if the training course were given in English, they would be nervous if they had to discuss it in English.(difficulty in the English language as a medium in teacher training)) Creating an inclusive school needs a commitment from the school management and the teaching staff.	Aspects that are important for successful training of teachers is prior knowledge and motivation – and this goes for the students/pupils as well.
ITALY	/	There also emerged a request for meritocratic recognition for subsequent involvement within the Institute.

SPAIN	Time is something that	
	worries teachers a lot because	_
	they are overwhelmed	/

4. BELIEFS ABOUT THE NATURE OF TEACHING AND LEARNING

The common belief about the nature of teaching and learning emerged during the focus group are presented below. The criteria are taken from TALIS 2008, TALIS 2018, Teaching and Learning International Survey (OCSE, 2009) and themes emerged in the focus group as well:

• THE IMPORTANCE TO FOSTER THE STRATEGIC THINKING/ TRANSVERSAL COMPETENCES

(HUNGARY - SWEDEN)

 THE IMPORTANCE TO USE PROBLEM-BASED LEARNING/ AUTHENTIC TASKS

(HUNGARY - SWEDEN - ITALY)

• THE IMPORTANCE TO APPLY COOPERATIVE AND COLLABORATIVE LEARNING

(SWEDEN - ITALY)

THE IMPORTANCE OF OBSERVATION AND KNOWLEDGE OF THE CLASS

(SWEDEN - ITALY)

Countries that are not mentioned in the table do not focus on this theme in particular.

5. WORKING CLIMATE IN THE SCHOOL (STUDENT-TEACHER, COLLABORATION BETWEEN TEACHERS, PERCEPTION OF SCHOOL MANAGEMENT)

The topics related to the working climate in the school emerged in the focus group are presented below. The Criteria are taken from TALIS 2008, TALIS 2018, Teaching and Learning International Survey (OCSE, 2009)

 PERCEPTION OF SCHOOL MANAGEMENT: CRITICAL ISSUES OF THE SCHOOL SYSTEM

"No free choice of textbooks, shrinking choice of textbooks, cutbacks in teachers' freedom, burnout, underpaid, unmotivated, many drop-outs, many burdens, "our careers have become a survival camp" (HUNGARY)

"Curricula are experienced as binding and overload" (SWEDEN). For instance, in the Swedish curricula creativity isn't mentioned and thus restricts the initiatives to be creative. Creativity is therefore not a priority for all teachers in teachers' training. They might think they do not need training in this area.

CLASSROOM LEARNING ENVIRONMENT:

- allocation of time between different activities; importance of time and relationship management (ITALY SPAIN)
- shared teaching practices consistent with the same pedagogical line: (climate attributable to a traditional teaching model of the transmissive type or to a constructivist model) Constructivism (ALL NATIONS)
- satisfaction and self-efficacy beliefs (SWEDEN AND HUNGARY) "Adaptation to the new challenges and improving teachers' digital literacy"

MAKE teachers FEEL CONFIDENT and foster the EFFECTIVENESS of the climate they build.

In summary, the next table synthesised when and how *teachers' training types* emerge in the **primary** focus groups, related to OECD/TALIS categories:

CATEGORIES OF	HELTE (HUNGARY)	OREBRO (SWEDEN)	UOC	MANZONI
TYPES OF TRAINING			(SPAIN)	(ITALY)
Criteria drawn from De Sanctis G. (MIUR, National Project Manager for Italy of OECD-TALIS)				
TALIS 2008, Italian teachers between professional growth needs and resistance, FGA Working Paper n.24, 2/2010				
individual or group research on topics of professional interest				
reading of academic publications	Х	х	х	
informal dialogues with colleagues	Х			х
peer mentoring, observation and mentoring	x	х	х	х
qualification program				
participation in a network of teachers with specific objective of professional development				х
study visits to other schools	X	х	Х	х
courses/laboratories	х	х		х

conferences and	Х	Х	Х	Х
seminars				

SECONDARY SCHOOL TEACHERS

1. CATEGORIES OF NEEDS

The common categories of needs that emerged during the secondary school teachers' focus group are presented below. The Criteria are taken from TALIS 2008, TALIS 2018, Teaching and Learning International Survey (OCSE, 2009)

• INNOVATION		
(ALL NATIONS INVOLVED)		
INTEGRATION AMONG SUBJECTS		
(HUNGARY – SWEDEN)		

- NEED OF INNOVATION (ALL NATIONS INVOLVED)
- -lots of critical issues to reach it, due to the educational system in Hungary. (HUNGARY)
- -for specific subjects/disciplinary areas, not in a general sense (SWEDEN- ITALY)
- "Very practical course oriented to its own disciplinary area, in the field of innovative teaching related to digital skills in presence and/ or in mixed mode" (ITALY)
- -ICT: know the normative data protection law, not only in ICT, and the appropriation of what already exists on the web, but also at the level of research skills (SPAIN)
 - NEED OF INTEGRATION AMONG DIFFERENT SUBJECTS AND FLEXIBILITY (HUNGARY – SWEDEN)
- -Teachers believe that they underline the need for greater cohesion in the curriculum and for a good understanding of the knowledge of specific subjects but also their connections. They introduce the theme of knowledge of new aspects in the school, such as that of privacy.
- "To concentrate on the amount of curriculum by integrating the school materials of the different subjects. -Those who don't teach compulsory "maturity-exam" subjects can be innovative. They have a "freer hand". (HUNGARY)
- "To grasp knowledge of the proposed activities and the connections between the different activities" (SWEDEN)

NEEDS EXPRESSED: Teachers need innovation in specific disciplines and integration between disciplinary areas. They require development of knowledge in normative data protection law, not only in ICT.

2. TYPES AND ORGANIZATIONAL ASPECTS OF A TRAINING ACTIVITY REFERRED TO YOUR NEEDS (theme emerged in the focus group) and PERCEIVED IMPACT OF TRAINING ACTIVITIES (TYPES)

The types and organizational aspects of a training and pedagogical/digital culture and the perceived impact of training activities emerged during the secondary school teachers focus group are presented below.

The criteria are taken from TALIS 2008, TALIS 2018, Teaching and Learning International Survey (OCSE, 2009)

CORRESPONDENCE BETWEEN THEORY AND PRACTICE
(SWEDEN- SPAIN-ITALY)
TIME MANAGEMENT OF THE TRAINING COURSES
(SWEDEN – ITALY)
USE OF ON LINE PLATFORM
(ALL NATIONS INVOLVED)
COOPERATIVE LEARNING
(SWEDEN - HUNGARY - ITALY)
TRAINERS FOR DIRECT EXPERIENCE OF WHAT THEY
TEACH (HUNGARY - SPAIN – ITALY)

• CORRESPONDENCE BETWEEN THEORY AND PRACTICE (SWEDEN-SPAIN-ITALY)

- provide practical useful and sustainable notions, which learning objectives could be applied daily.
- Course organized in a transdisciplinary perspective.
 - TIME MANAGEMENT OF THE TRAINING COURSES (SWEDEN ITALY)

"The duration should be at least 10 hours. It could be three afternoons from 3/4 hours each, or alternatively evening classes". (ITALY)

• USE OF ON LINE PLATFORM (ALL NATIONS INVOLVED)

[&]quot;Short courses" (SWEDEN)

- -Meet, phone apps, Wordcloud, Wordwall, National Education Portal (https://www.nkp.hu), Messenger. Online methods, programs, the point system for assessment, online communication, discussion techniques in online teacher meetings; Google Classroom, Redmenta (https://redmenta.com), Kahoot, mind maps, You tube, word cloud; ICT tools, lots of ideas from website, (Hungary)
- -Training course to know how to use google maps and similar sites that allow virtual trips to compare laws and uses on common topics (e.g. separate collection); Refresher course for documentation of what you are going to learn (brochure, video, presentations, teaching output); Course of modeling in 3d. Image education race for the teacher on the communicative style of iconic language; Video maker course to convey images as effectively as possible; Course on the regulations of the net in matter of copyright and licenses of use also to levels of Institute (Italy)
 - **COOPERATIVE LEARNING (**SWEDEN HUNGARY ITALY)
- -cooperative learning techniques
 - TRAINERS FOR DIRECT EXPERIENCE OF WHAT THEY TEACH (HUNGARY SPAIN ITALY)
- -"discussion techniques applied in class as well as in teacher meetings" (HUNGARY)
- -"It is important that trainers have direct experience of what they teach" (SPAIN)

TYPES AND ORGANISATIONAL ASPECTS: a training proposal must be practical, useful and give sustainable notions, ready to use in the daily work. There does not seem to be an agreement on the duration between the groups, as there are many differences on the types of content that would be deemed useful on the digital competences and ICT courses. A lot of heterogeneity is noted in the representation of the types of courses necessary to implement the digital skills of secondary teachers in the different groups.

6. OBSTACLES AND INCENTIVES TO PARTICIPATION IN PROFESSIONAL DEVELOPMENT ACTIVITIES (FINANCIAL OR EMPLOYMENT SUPPORT)

The obstacles and incentives to participation in professional development activities emerged during the secondary teachers focus group are presented below. The **c**riteria are taken from TALIS 2008, TALIS 2018, Teaching and Learning International Survey (OCSE, 2009 and theme emerged in the focus group as well)

HUNGARY Most of the new training elements and devices came kinds of technical support when the COVID period started in	COUNTRY	OBSTACLES:	INCENTIVES:
how to use Google Classroom) and parents (in affluent areas, mainly in Budapest, parents donated equipment). -course should be more well paid course should be more well paid and parents (in affluent areas, and students in time. It integrated Cisco Webex into the national online e-learning system, even if it did not work well. financial resources, time, project management and	HUNGARY	elements and devices came from colleagues (e.g., video on how to use Google Classroom) and parents (in affluent areas, mainly in Budapest, parents donated equipment). -course should be more well	kinds of technical support when the COVID period started in 2020. Most high schools only assessed the needs of teachers and students in time. It integrated Cisco Webex into the national online e-learning system, even if it did not work well. financial resources, time,

		organization, cooperation with other work groups
SWEDEN	Course perceived as work overload	 certificates of participation upon completion of the course; enlight the aims and purposes of the training courses; encourage the perception of the course as an aid.
ITALY	Not always the course provide for the possibility of having a trainer to support in the phase of application of what you have learned	moments after the course itself as a reinforcement of what has been learned: observation and mentoring between newly-introduced teachers and experienced teachers and discussion of the emerging issues, even in out-of-school moments.
SPAIN	Importance of "teaching rotations" as most of the time secondary school teachers are sharing trainings with the same colleagues and this can be limiting. - Regarding ICT there is training for teachers, but it does not take into account different levels of knowledge. For some people it could be basic or repetitive. -Usually teachers are not really motivated to do trainings, especially if these trainings are at the same school where they work at.	- It is crucial allowing teachers to create a network (for example, biology teachers from different schools who can become an innovative and transforming network in biology methodology)

7. BELIEFS ABOUT THE NATURE OF TEACHING AND LEARNING

Criteria taken from TALIS 2008, TALIS 2018, Teaching and Learning International Survey (OCSE, 2009) and theme emerged in the focus group as well)

MENTORING	
HUNGARY - SPAIN)	
 SOCIAL SKILL DEVELOPMENT 	

(HUNGARY - ITALY)

• IMPORTANCE OF INTERDISCIPLINARITY AND INNOVATION IN EDUCATIONAL PROCESSES

(HUNGARY - SWEDEN - ITALY)

DIGITAL AWARENESS AND SKILLS

(HUNGARY - ITALY)

KNOWLDEGE OF THE CLASS GROUP

(SWEDEN - ITALY)

8. WORKING CLIMATE IN THE SCHOOL (STUDENT-TEACHER, COLLABORATION BETWEEN TEACHERS, PERCEPTION OF SCHOOL MANAGEMENT)

Theme emerged in the focus group and Criteria taken from TALIS 2008, TALIS 2018, Teaching and Learning International Survey (OCSE, 2009)

- Student-teacher: -for inclusivity: openess, acceptance and self-reflection on the parts of both children and teachers;
- Digital skills: a group of teenage students can implement such projects easily without the help of a teacher: AUTHENTIC TASKS. (HUNGARY- SWEDEN)
- Teacher-teacher: collaborative work and mentorship (ITALY SPAIN HUNGARY)
- Perception of school management: critical issues of the school system (ALL COUNTRY)

Working climate should be implemented by: classroom learning environment, shared teaching practices consistent with the same pedagogical line (climate attributable to a traditional teaching model of the transmissive type or to a constructivist model), for instance Constructivism (Hungary- Sweden- Italy) or Universal learning design methodology (Spain); it needs satisfaction and self-efficacy beliefs; well motivated courses (Sweden - Italy) are useful to foster satisfaction.

In summary, the next table synthetize the presence/absence of *teachers' training types* in the **Secondary School** focus groups, related to OECD/TALIS categories:

	HELTE - HUNGARY	OREBRO - SWEDEN	UOC - SPAIN	"A. MANZONI" ITALY
individual or group research on topics of professional interest	х			х
reading of	х			х

[&]quot;Allow teachers to create a network for every subject".(SPAIN)

[&]quot;Cooperation between teachers necessary and positive" (ITALY)

[&]quot;Motivation, interest, subject integration" (HUNGARY)

academic publications				
informal dialogues with colleagues	х		х	х
peer mentoring, observation and mentoring	х		Х	Х
qualification program	х		х	х
participation in a network of teachers with specific objective of professional development			X	х
study visits to other schools	Visiting?			х
courses/laborator ies		х		х
conferences and seminars				х

FIRST COMPARISON RESULTS:

The PR2 Descriptive report on the training needs of teachers relating to the four main areas of competence at the center of teachers' professionalism, tried to create a relationship to connect teachers' opinions and knowledge about in-service teachers training and the fields of creativity, inclusiveness and didactic innovation, combined with the planned transformation of educational systems for making them "digitally ready".

These are some table to summarise our qualitative further deepening:

1.

CATEGORIES OF NEEDS -Listen to and share Courses on circular Criteria taken from TALIS 2008, TALIS 2018, communication involving all those involved in the Teaching and Learning International Survey (OCSE, school/family systems; 2009) -know theoretic concepts on inclusion and inclusive COOPERATION AMONG PROFESSIONALS works about the weaknesses of children; -develop inclusive methodologies to promote AND FAMILIES **INCLUSION** well-being at school; CLASSROOM MANAGEMENT -arise from a need linked to its own disciplinary field

- USE OF DIGITAL PLATFORM AND TOOLS
- INNOVATION
- INTEGRATION AMONG SUBJECTS

or to the management of relational dynamics within the class:

-attend Training courses on digital tools and pedagogical/digital culture and innovative teaching methods with a focus on attention, motivation and web surfing risks.

2.

TYPES AND ORGANISATIONAL ASPECTS OF A TRAINING ACTIVITY REFERRED TO YOUR NEEDS (THEME EMERGED IN THE FOCUS GROUP) AND

perceived impact of training activities (types)

Criteria taken from TALIS 2008, TALIS 2018,

Teaching and Learning International Survey (OCSE, 2009)

- CORRESPONDENCE BETWEEN THEORY AND PRACTICE TIME
- MANAGEMENT OF THE TRAINING COURSES
- SCHOOL VISITING
- MENTORING
- USE OF DIGITAL RESOURCES AND ONLINE PLATFORMS
- COOPERATIVE PRACTICES
- TRAINERS WITH DIRECT EXPERIENCE OF WHAT THEY TEACH

- A training proposal must balance theory and practice, ensuring coherence e reciprocity among the modules, adaptability to the context and presence during the activities of the teacher trainer;
- the duration may be variable, but not of a pair of modules or isolated modules. It requires time distributed between real activities and comparison between colleagues;
- possibility to observe and visit other school context and settings;
- mentoring by experienced colleagues;
- teachers find Facebook pages, thematic website, informal teacher's groups, online webinars and tutorials, a simple and useful way to exchange materials and ideas, but also to train themselves;
- cooperative learning also appears to be considered useful in teacher training

BELIEFS ABOUT THE NATURE OF TEACHING AND LEARNING Criteria taken from TALIS 2008, TALIS 2018, Teaching and Learning International Survey (OCSE, 2009) (THEME EMERGED IN THE FOCUS GROUP as well)

- FOSTER THE STRATEGIC THINKING/ TRANSVERSAL COMPETENCES
- PROBLEM-BASED LEARNING/ AUTHENTIC TASKS
- COOPERATIVE AND COLLABORATIVE LEARNING
- OBSERVATION AND KNOWLEDGE OF THE CLASS
- MENTORING
- SOCIAL SKILL DEVELOPMENT
- IMPORTANCE OF INTERDISCIPLINARITY AND INNOVATION IN EDUCATIONAL PROCESSES

- DIGITAL AWARENESS AND SKILLS
- KNOWLEDGE OF THE CLASS GROUP

Other criteria from TALIS 2008, TALIS 2018, Teaching and Learning International Survey (OCSE, 2009)

- CLASSROOM LEARNING ENVIRONMENT;
- SHARED TEACHING PRACTICES CONSISTENT WITH THE SAME PEDAGOGICAL LINE;
- SATISFACTION AND SELF-EFFICACY BELIEFS;

CATEGORIES OF TYPES OF TRAINING

Criteria drawn from De Sanctis G. (MIUR, National Project Manager for Italy of OECD-TALIS)

TALIS 2008, Italian teachers between professional growth needs and resistance, FGA Working
Paper n.24, 2/2010

PRIMARY	SECONDARY
TEACHERS	TEACHERS
0/4	2/4
3/4	2/4
2/4	3/4
4/4	3/4
0/4	3/4
1/4	2/4
2/4	4/4
3/4	2/4
4/4	1/4
	TEACHERS 0/4 3/4 2/4 4/4 0/4 1/4 2/4 3/4

2.4 Final considerations

From the qualitative comparison of the Focus group analyses we tried to make the voice of teachers heard in their contexts and give them space to better focus on their needs and opinions.

Thanks to the categories related to OECD Teaching and Learning International Survey (TALIS) we started to understand if the criterias of our survey were correct, assessing the ways in which teachers acquired their knowledge and skills during their early education and training, as well as how they prefer to develop their professional development.

The conductors ask teachers about their working life in school, the interactions with colleagues, their teaching practices and their opinion about participation in continuous professional development.

Effective training involves teachers adopting a research attitude towards their own practices. This involves a process of progressively recognizing, explaining, and critically observing their own frames of reference, which are made up of beliefs, attitudes, routines, knowledge, and more. When teachers become aware of these aspects and recognize a discrepancy between them and the problematic teaching situation they are facing, their resistance to change decreases and their readiness to change increases. (Taylor, 2015).

Supporting this process requires the teacher to adopt a reflective attitude towards their teaching actions on a permanent basis, rather than spontaneously or occasionally. According to *Schon* (1983), teachers should aim to become reflective professionals who reflect on problematic situations to interpret and resolve them, while also monitoring and reviewing their own systems of knowledge, beliefs, and attitudes.

In the Focus groups they ask to move away from transmissive ways to teach and learn: they need to meet colleagues, have informal dialogues with them, peer mentoring, observation and mentoring. They do believe in study visits to other schools as well as conferences and seminars, with more practical work labs, but together with an expert who seems to determine the revision and personalisation of the learning progressions.

They have common believes on their learning needs to improve their students' wellness and results:

- Encourage strategic thinking and transversal competencies.
- Use problem-based learning and authentic tasks.
- Promote cooperative and collaborative learning.
- Observe and understand the class.
- Provide mentorship to students.
- Develop social skills in students.
- Emphasise the importance of interdisciplinary and innovative approaches in education.
- Teach digital awareness and skills.
- Understand the dynamics of the class group.

It is not enough to provide knowledge and tools to change teaching action. Furthermore, they confirm the preference for pathways where the teacher takes an active role. Teachers seem to ask for courses that assure them not only disciplinary knowledge but transversal knowledge, in accordance with the reflections on what the partner countries consider crucial elements of the good practices collected.

Transversally to many needs and reflections on the types of training often emerges the reflection on the need to acquire greater digital skills on several aspects ranging from the production of materials to techniques and methodologies, to knowledge on sharing and online and safe use of the Internet.

Due to the fact that teachers' attitudes and knowledge guide their teaching practices, we should keep in account their opinions. When teachers recognize their own frame of reference and realise that it may not be useful or fully effective in dealing with a challenging teaching situation, they become willing to change their frame of reference. This willingness to change leads to a stable and profound transformation of their teaching practices, resulting in an improved approach to teaching.

The skills relating to the areas of inclusion and creativity are those which, in the authentic tasks proposed as a moment of reflection in the focus groups, have created the most discrepancies. Given that this may depend on the contexts and methodologies on which it was reflected that they certainly see a *byas* in the differences between countries and school systems, it seems that the vision of these two "petals" is the most diversified one. For this reason, it is also important to have a quantitative analysis thanks to the survey.

3 – Methodology and structure related to scientific literature

The Survey, thanks to the analyses of the Focus groups, has been confirmed in the following structure, related to the scientific literature and to the GPes.

Furthermore, we keep in count Kennedy models CPD (2005): the main characteristics of these models are categorised and can give us an insight on which circumstances can be suitable to adopt and explore the form(s) of knowledge through a particular model. Kennedy identify nine models:

- award-bearing;
- deficit:
- cascade:
- standards-based;
- coaching/mentoring;
- community of practice;
- action research:
- transformative.

Obviously, as we mentioned for the Focus group analyses, our main reference are some recent international studies conducted by UNESCO (2006)2, OECD (2005), European Union (Eurydice, 20034, 2007, 20085; European Commission, 20096): these European surveys collected information on in-service teacher education. It is all about data regarding the level and intensity of participation in training initiatives in service, organization and extent of the offer, types, supports and incentives foreseen in the different national education systems, budgets, which intertwine with other aspects measurable characteristics of teachers (level of qualification and education, length of service) and working conditions.

Finally, we add items on our 4 main competences, inclusiveness, creativity, innovation and digital, related to the projects and on what emerged from the PR1 analytical report.

Other references for the survey are:

- Balcikanli, C. (2011). Metacognitive Awareness Inventory for Teachers (MAIT). *Electronic Journal of Research in Educational Psychology*, 9(3), 1309-1332.
- Booth, T., & Ainscow, M. (2002). *Index for inclusion: developing learning and participation in schools*. Centre for Studies on Inclusive Education (CSIE), Bristol, UK.
- DaVia Rubenstein, L., McCoach, D.B., & Siegle, D. (2013). Teaching for Creativity Scales: An Instrument to Examine Teachers' Perceptions of Factors That Allow for the Teaching of Creativity, Creativity Research Journal, 25:3, 324-334, DOI: 10.1080/10400419.2013.813807

- OECD (2018), "Teaching and Learning International Survey (TALIS): Teacher Questionnaire", http://www.oecd.org/education/school/TALIS-2018-MS-Teacher-Questionnaire-ENG.pdf.
- Palaniappan, A.K. (2009). Creative teaching and its assessment. In: 12th UNESCO-APEID International Conference with the theme "Quality Innovations for Teaching and Learning", 24 – 26 March 2009, Bangkok, Thailand.
- Sharma, E., & Sharma, S.S. (2018). Creativity nurturing behaviour scale for teachers.
 International Journal of Educational Management, 32(6): 1016-1028, DOI: 10.1108/IJEM-10-2017-0294
- Tschannen-Moran, M., & Woolfolk, H.A. (2001). Teacher Efficacy: Capturing an Elusive Construct. Teaching and Teacher Education, 17: 783-805. DOI: 10.1016/S0742-051X(01)00036-1

Here are the sections and the related questions with related references:

QUESTIONNAIRE SECTION	FOCUS GROUP RELATED QUESTION	SOURCE	SECTION/SUB SCALE/FACTOR	ITEMS
Background and Qualification		OECD (2018), "Teaching and Learning International Survey (TALIS): Teacher Questionnaire".	Background and Qualification	1; 2; 3; 5; 6
2. Current Work		OECD (2018), "Teaching and Learning International Survey (TALIS): Teacher Questionnaire".	Current Work	9; 11
3. Professional Development	Question 1 – What characterizes a good training course?	OECD (2018), "Teaching and Learning International Survey (TALIS): Teacher Questionnaire".	Professional Development	22 (PD activities codification); 26 (characteristics of PD activities that had the greatest positive impact on your teaching); 28 (barriers to participation in professional development)
4. Innovation	Question 2 – a. innovation	Creative Teaching Inventory (CTI) (Palaniappan, 2009)	Innovative	All items (12 items)
		Metacognitive Awareness Inventory for Teachers (MAIT) (Balcikanli, 2011)	Procedural knowledge	2; 8; 14; 20
5. Creativity	Question 2 – b. creativity	Creativity nurturing behaviour scale for teachers (Sharma & Sharma, 2018)	Abstraction; Critical thinking	All items (5 items); All items (4 items)
		Teaching for Creativity Scale (Rubenstein, McCoach & Del Siegle, 2013)	Teacher self-efficacy; [potentially: Student posture]	All items (13 items)
6. Inclusion	Question 2 – c. inclusion	Index for Inclusion (Booth & Ainscow, 2002). ENG	Questionnaire 1 - DIMENSION C Evolving inclusive practices	All items (16 items: C1.1-C1.11; C2.1-C2.5)
		Teachers' Sense of Efficacy Scale (Tschannen-Moran & Hoy 2001), SHORT FORM - Teacher Beliefs	Efficacy in Student Engagement; Efficacy in Instructional Strategies	2, 3, 4, 11. 5, 9, 10, 12.

QUESTIONNAIRE SECTION	FOCUS GROUP RELATED QUESTION	SOURCE	SECTION/SUB SCALE/FACTOR	ITEMS
7. Digital competencies	Question 2 – d. digital competencies	SELFIE for TEACHERS (European Commission) 1.7 Professional Engagement - Professional learning (through digital technologies) 3.1 Teaching and Learning - Teaching 3.2 Teaching and Learning - Guidance 3.3 Teaching and Learning - Collaborative Learning	1.7 3.1 3.2 3.3	
8. Perceived PD needs	Question 3 – What are the needs that you perceive in this particular moment of your professional life?	OECD (2018), "Teaching and Learning International Survey (TALIS): Teacher Questionnaire".	Professional Development	27 (areas of professional development needs)
«Good practice elements»		PR1 Report		

To accommodate the complexity of the data and pursue in the intended aim, the researchers opted to analyse the data with SPSS, a statistics software, in order to use the Descriptives procedure to compute a select set of basic descriptive statistics for one or more continuous numeric variables. In all, the statistics produced are:

- N valid responses
- Mean
- Sum
- Standard deviation
- Variance
- Minimum
- Maximum
- Range
- Standard error of the mean (or *S.E. mean*)
 Some of the items have been analyzed with an insight on frequencies and contingency.

4 - Analysis of EXCIITE Survey

In the **first** section we can see the background of the respondents and some items about their qualifications.

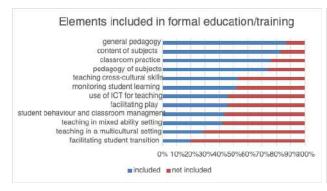
The average age is 46.31 years, for a sample with a majority of women (88.3%). Over 55% of the sample has the highest level of completed formal education ISCED 6, that leads to a first degree or equivalent qualification. They typically have a duration of three to four years of full-time study at the tertiary level.

Teachers say they complete the formal education or training that qualified them to teach in a range of 20 years for the most. The sample is therefore heterogeneous.

Questions 6A and 6B investigated elements included in their formal education or training and if and how they judged these elements as elements they felt prepared in their work.

The most representative elements of the themes included in their preparation resulted in order: elements of general didactic, disciplinary knowledge, elements of methodology and general pedagogy. In the same items, the cumulative percentage considers them prepared in general pedagogy for 83.8%, while the levels of self-efficacy rise due to the use of mixed methodologies and for elements of knowledge of multicultural teaching and for the skills in managing pupils' behaviours, the latter elements in which the formal path did not seem to have been particularly formative.

The following graphs help to relate the two questions for each specific items in terms of inclusion of topics in the formal learning path and of preparation in the work experience:





Comparing responses provides valuable insights into the gap between what was formally included in teacher education and perceived preparation for the same elements.

In many cases, the elements included in training are consistent with positive perceptions of preparedness. However, there are significant discrepancies in certain areas. While some respondents reported that "Teaching in a multicultural or multilingual environment" was included in their training, perceived preparation for this element often lags behind, indicating a potential need for more practical or in-depth coverage. About cross-curricular skills, similar gaps appear in areas such as fostering creativity, critical thinking and problem solving, suggesting that theoretical inclusion does not always translate into confidence in practical application.

Regarding positive correlations, elements such as "general pedagogy" and "classroom management" show a stronger correlation between formal inclusion and readiness, reflecting effective training in these fundamental areas.

The data highlight the importance of bridging the gap between theoretical training and practice, particularly in areas that require adaptation to different classroom contexts. Strengthening practical components, such as teaching in mixed ability settings or using ICT, could improve teachers' confidence and effectiveness. This comparison highlights the need for teacher education programmes to balance theoretical knowledge with practical, hands-on experience to ensure comprehensive preparation.

The **second** section describes elements of the current work's experience of the sample, with a standard deviation of 0,725. 80,8 % declare a Permanent employment, while only the 14,9 % of the teachers have a Fixed-term contract for a period of 1 school year or less.

The sample is rather homogenous from this point of view.

They are experienced teachers and the Item 8 confirms the work employment of the average: only 11% have less than 4 years of school work experience and more than 50% from a cumulative percentage of teachers with more than 17 years of work experience.

Many teachers, about half of the respondents, had years of work in other educational roles, while about 40% had work experience in a non-educational field.

The **third** section about Professional development deepens the professional development activities participated in the last 12 months. Only 0.27% say they have followed training involving most colleagues from their school, while approximately 0.85% confirm that they have followed training related to their educational needs, training of an active nature and that provided opportunities to practise/apply new ideas and knowledge in their own classroom. Only around 40% report training attended which provided follow-up activities and which took place at their school. These are the activities that had the most impact on their professional development according with the item 9.

As for the type of courses followed in the same period, only a third of the teachers had the opportunity to make visits or to create networks for follow-up training, something requested both in the focus groups and as emerged from the GPes, while 75% attended courses in presence, 86% followed online courses and just over half attended Education conferences where teachers and/or researchers present their research or discuss educational issues and studied in-depth professional literature.

Questioned in item 11 on the barriers that have prevented them from carrying out a good professional study, the teachers answered that over 40% do not agree that it is a problem of prerequisites, for about 50% it is a problem linked to the lack of support from the employer, more than 60% believe that these are barriers related to family responsibilities, while more than 50% think there is a lack of incentives for participating in professional development.

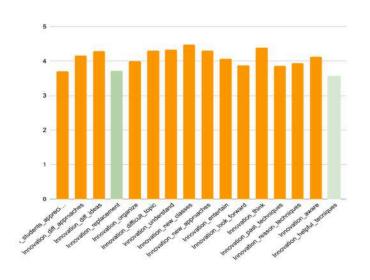
The **fourth** section on innovation gives the following results (1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree):

Innovation: section 4

12. Please read every statement carefully and choose the answer that best describes * you. There are no right or wrong answers. This is simply an assessment of your personal experience.

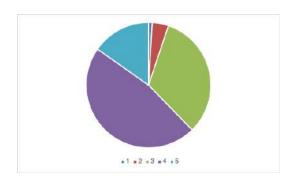
[Strongly disagree; disagree; Neutral; Agree; Strongly agree]

Innovation_students_appreciation	3,71
Innovation_diff_approaches	4,17
Innovation_diff_ideas	4,29
Innovation_replacement	3,72
Innovation_organize	4
Innovation_difficult_topic	4,31
Innovation_understand	4,33
Innovation_new_classes	4,48
Innovation_new_approaches	4,31
Innovation_entertain	4,07
Innovation_look_forward	3,88
Innovation_think	4,38
Innovation_past_techniques	3,86
Innovation_reason_techniques	3,95
Innovation_aware	4,13
Innovation_helpful_tecniques	3,55

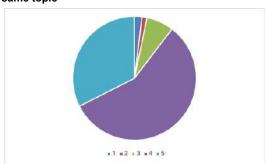


Below are all the answers, by percentage:

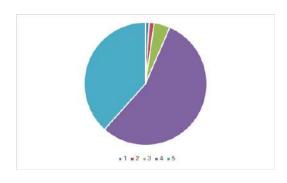
Item 12.1 My students look forward to my class



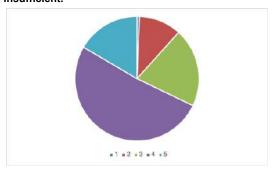
Item 12.2 I always like to use different approaches for the same topic



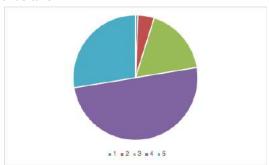
Item 12.3 I like to use different ideas



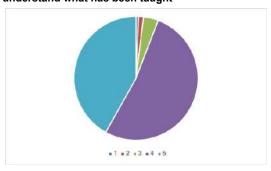
Item 12.4 I can easily find replacement for things that are insufficient.



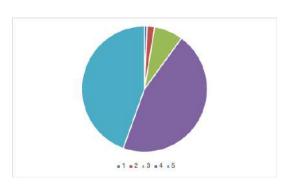
Item 12.5 I like to organize activities that have never been undertaken



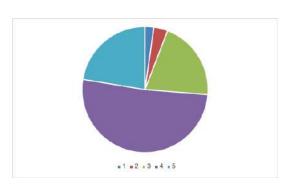
Item 12.7 I like to find new ways to make my students understand what has been taught



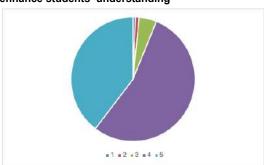
Item 12.9 I like to try to use new teaching approaches



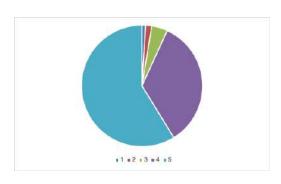
Item 12.11 I always look forward to teach my classes



Item 12.6 I like to find new ways to teach a difficult topic to enhance students' understanding



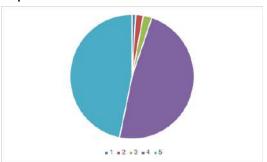
Item 12.8 I like to teach my classes



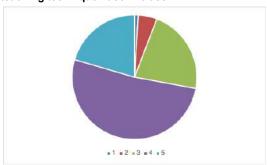
Item 12.10 I like to search for new ways to entertain my students



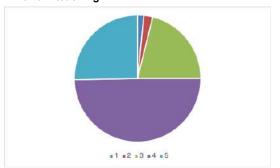
Item 12.12I try to use teaching techniques that worked in the past



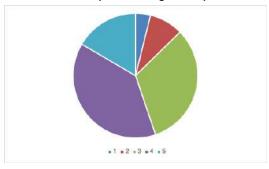
Item 12.13 I have a specific reason for choosing each teaching technique I use in class.



Item 12.14 I am aware of what teaching techniques I use while I am teaching

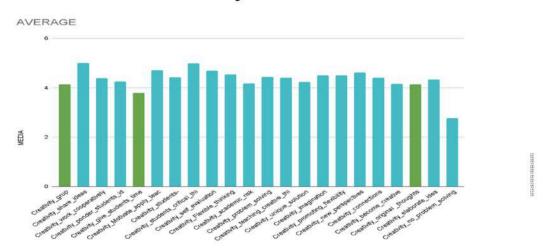


Item 12.15 I use helpful teaching techniques automatically



The **fifth** section on "Creativity" gives the following results:

Creativity: Section 5

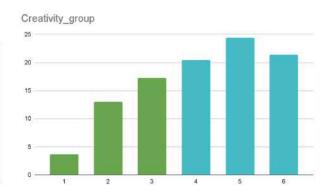


Please read every statement carefully and choose the answer that best describes you. There are no right or wrong answers. It is simply a matter of what is true for you. [1 - Completely disagree / 2 / 3 / 4 / 5 / 6 - Agree completely]

This is followed by a focus on some specific questions, which we found particularly important:

Creativity - Item 13.1 - "I regularly give group assignments as part of the pedagogy"

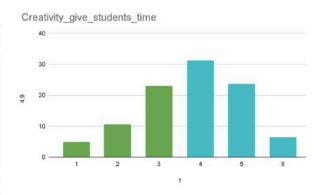
	Frequency	Percentage	Cumulative percentage
1	11	3,6	3,6
2	40	13	16,6
3	53	17,2	33,8
4	63	20,5	54,2
5	75	24,4	78,6
6	66	21,4	100
Total	308	100	



Cumulative percentage of 1-2-3 answer is 33,8%

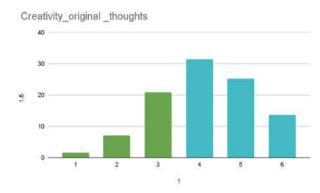
Creativity - Item 13.5 - I do not react immediately to the suggestions of the students rather give them time

Answer	Frequency	Percentage	Cumulative percentage
1 completely disagree	15	4,9	4,9
2	33	10,7	15,6
3	71	23,1	38,6
4	96	31,2	69,8
5	73	23,7	93,5
6 Completely agree	20	6,5	100
Total	308	100	



Creativity - Item 13.20 - I am capable of increasing the quantity of original thoughts my students have.

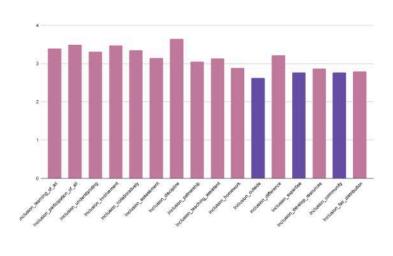
Answer	Frequency	Percentage	Cumulative percentage
1 completely disagree	5	1,6	1,6
2	22	7,1	8,8
3	64	20,8	29,5
4	97	31,5	61
5	78	25,3	86,4
6 Completely agree	42	13,6	100
Total	308	100	



The **sixth** section 6 on "Inclusion" gives the following results:

Inclusion: Section 6

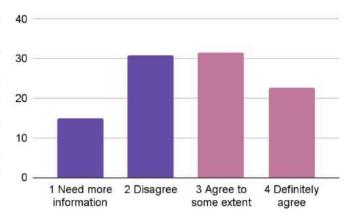
	Average	Standard deviation
Inclusion_learning_of_all	3,39	0,806
Inclusion_participation_of_al	3,49	0,742
Inclusion_understanding	3,31	0,804
Inclusion_involvement	3,47	0,75
Inclusion_collaboratively	3,35	0,757
Inclusion_assessment	3,15	0,842
Inclusion_discipline	3,65	0,695
Inclusion_patnership	3,05	0,866
Inclusion_teaching_assistent	3,14	1,047
Inclusion_homework	2,89	0,923
Inclusion_outside	2,62	0,996
Inclusion_difference	3,22	0,886
Inclusion_expertise	2,77	0,899
Inclusion_develop_resources	2,87	0,917
Inclusion_community	2,77	0,89
Inclusion_fair_distribution	2,8	0,968



This is followed by a focus on some specific questions, which we found particularly important:

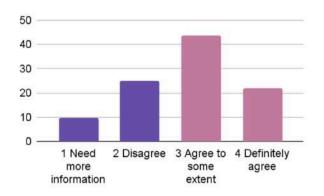
Inclusion - Item 14.11 - Homework contributes to the learning of all.

	Frequency	Percentage	Cumulative percentage
1 Need more information	46	14,9	14,9
2 Disagree	95	30,8	45,8
3 Agree to some extent	97	31,5	77,3
4 Definitely agree	70	22,7	100
Total	308	100	



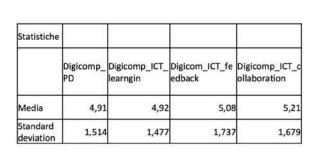
Inclusion - Item 14.7 - Classroom discipline is based on mutual respect.

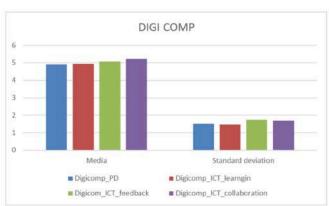
	Frequency	Percentage	Cumulative percentage
1 Need more information	30	9,7	9,7
2 Disagree	77	25	34,7
3 Agree to some extent	134	43,5	78,2
4 Definitely agree	67	21,8	100
Total	308	100	y



The **seventh** section on "Digital" gives the following results:

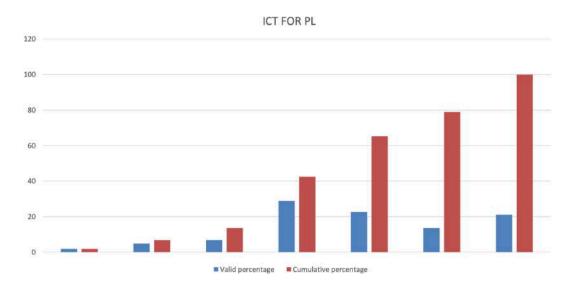
DIGITAL COMPETENCES: SECTION 7



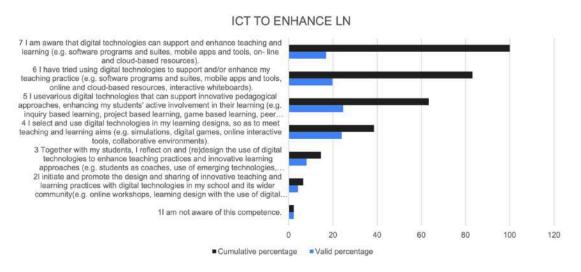


This is followed by a focus on some specific questions, which we found particularly important:

Item 16: Using digital technologies for one's own professional learning



Item 17: Designing, developing and support learning with the use of digital technologies to enhance learning outcomes.



Item 18: Using digital technologies to foster and enhance learner collaboration for individual and collective learning



In the **eighth** section, the questions were adapted from the 'good practice elements' (PR1). These are the questions asked:

GPE_needs_environments	How to make classrooms collaborative and inclusive environments	
GPE_needs_diversity	How to use diversity as a learning resource	
GPE_needs_agency	How to promote learners' agency	
GPE_needs_democratic	How to support the development of a democratic learning environment	
GPE_needs_expressive_tools	How to design a multimodal learning environment with multiple expressive tools	
GPE_needs_partner_organizations	How to partner with different organisations to enhance students' learning experience	
GPE_needs_ICT_documentation	How to document teaching practices innovative learning experiences in order to reflect and share them with colleagues by using digital tools	
GPE_needs_digital_platforms	How to use digital platforms and tools for the collaborative design of innovative and dynamic learning experiences for students	

and materials in a collaborative way, involving

teachers' team and students

GPE_needs_remote_resources How to use digital tools to enrich learning

experiences by giving access to remote resources, contexts, teachers, equipment and

intercultural learning experiences

GPE_needs_individual How to identify and cope with individual learning

needs

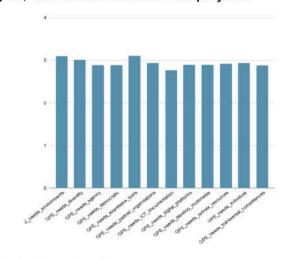
GPE_needs_transversal_competences How to develop and evaluate transversal

competences within the curriculum framework

The **section 8** on "Good Practice Elements" gives the following results:

GPES: «21. During field research we have identified some Good Practice Elements (GPE) for creativity, innovation, inclusiveness and digital, that are the focus of our project.»

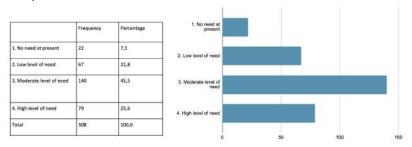
	Media	Standard deviation
GPE_needs_environments	3,10	0,931
GPE_needs_diversity	3,01	0,921
GPE_needs_agency	2,89	0,891
GPE_needs_democratic	2,89	0,921
GPE_needs_expressive_tools	3,11	0,852
GPE_needs_partner_organizations	2,94	0,871
GPE_needs_ICT_documentation	2,77	0,952
GPE_needs_digital_platforms	2,90	0,918
GPE_needs_develop_multimedia	2,90	0,954
GPE_needs_remote_resources	2,92	0,901
GPE_needs_individual	2,94	0,859
GPE_needs_transversal_competences	2,88	0,883



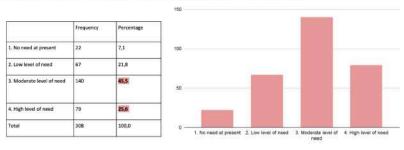
For each of the competences listed below, that emerge from our GPEs, please indicate the extent to which you currently need professional development. [1 - No need at present / 2 - Low level of need / 3 - Moderate level of need / 4 - High level of need]

This is followed by a focus on some specific questions, which we found particularly important:

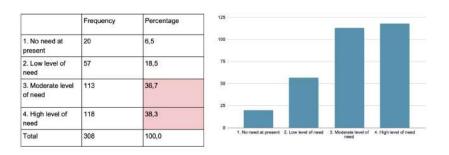
GPEs: How to develop and evaluate transversal competences within the curriculum framework



GPEs: How to develop and evaluate transversal competences within the curriculum framework



GPEs: Item21.1 How to make classrooms collaborative and inclusive environments



GPEs: Item21.5 How to design a multimodal learning environment with multiple expressive tools

	Frequency	Percentage	150
1No need at present	16	5,2	
2Low level of need	50	16,2	100
3 Moderate level of need	131	42,5	
4 High level of need	111	36,0	50
Total	308	100,0	
			0 1 No need at nees

4.6 How were teachers' needs identified?

The work on the analyses of the survey and its complex correlations will continue according to the development of tools for the PR3.

The identification of needs will come "from the top," from the national agencies of education, from the expected outcomes of European documents (OECD SURVEYS, Eurydice documents, United Nations, 2015), from the Focus group results and from the collected Good Practices.

From the Focus group analyses we better understand needs can be detected before the training proposal (generic, to orient training, to learn about interests, to probe knowledge already possessed) or during the program (to continually redefine and adapt the program): they do underline the needs of cooperation among professionals and families, of inclusion, of the support of a classroom management, a better competence in using digital platform and tools, a urgent call on innovation, the idea that school can achieve a better integration among subjects.

The online Survey on teacher needs, has helped to detect interests and knowledge; analysing the responses, it is possible to structure the training and updating year by year, promoting that network emerged as an issue both in the focus group and in the survey; in the case of collaboration between several training institutions, the overall training plan could be developed according to the principle of continuity, consistency and constant exchange with different actors, but also keeping in count the idea of visiting and mentoring as a main issue claimed by the teachers; they also confirm the importance to use open platform: teachers can identify their own needs and look for material to use on the platforms;

Literature and experience show that it is hard for teachers to imagine training needs outside of their usual scope of actions, they asked for a balance among theory and practice, ensuring coherence e reciprocity among the training modules, adaptability to the context and presence during the activities of the teacher trainer and mentor: connecting to different professional, engaging in online exchanges with other teachers, helps them broadening their horizons and enhancing their understanding of their professional development needs.

5 - Concluding reflections and further steps

How to use the Descriptive Report in view of the following Project results

- The results of the Focus groups comparison, thanks to the summaries analyses, can
 certainly deepen the opinion and the teachers' point of view on their PD (professional
 development) and types of training, usually proposed in respective countries, and should
 delve PR3 into the topic, putting in relation the GPs collected with their reflection on
 obstacles and opportunities for professional development.
- Furthermore, the Good Practice Elements, both petal specific and transversal, identified in the PR1 Analytic report, may be filter through their reflections on needs: certainly the practices chosen by each partner are excellent training and professionalizing opportunities which, however, must bend to the considerations of the teachers: these considerations, despite being a non-representative sample in scientific terms, can guide the elaboration of structures more fitting training courses on the previous experiences of professionals in the educational sector.
- The Survey, built starting from the European reference scientific literature and enriched by validated documents with respect to the 4 areas of interest of the EXCIITE project, made it possible to collect important data to be correlated with the GPEs and T-GPEs in order to offer strong support to PR3 and to structure elements to design the PRR4 Multilingual Learning and testing Resource Hub.
- The results, starting from careful overview of the background and professional career profile of the teachers, with a look not only at the years of service, but at the level of training, has made it possible to better understand the aspects most lacking in their professional entry, their perception of effectiveness and what types of training courses have been attended in the last period. Among those who filled out the questionnaire, the profile of teachers interested in in-service training emerges, still closely tied to disciplinary teaching, with diversified profiles and opinions on the issue of inclusion and creativity.
- The digitization plan, and the new training needs that emerge from the challenges of the Digicomp Profile, give the image of teachers who, after the pandemic, are more aware of the need to use mixed tools and methodologies, platforms and online courses for their training, a certain degree of tools for collaborative work with the aim of implementing communication and integration of teaching-learning paths between colleagues. The creation of a Hub, that allows for the offering of self-assessment tools for choosing career paths and that offers a network of European partners in this regard, seems to respond perfectly to this need.
- Finally, the PR1 analytical report suggested possible learning needs that now we can relate to the Surveys' results.

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Annex 1

Characteristics of Focus Group Interviews - Target: Primary school teachers

PROCEDURE

Participants

- ≅ Carefully recruited
- ≅ 5 to 10 people per group, 6-8 preferred
- \cong Similar types of people: primary school teachers
- ≅ Repeated groups for interwiews, if possible
 - Environment
- ≅ Comfortable
- ≅ Circle seating
- ≅ Tape recorded
 - Moderator
- ≅ Skillful in group discussions
- ≅ Uses pre-determined questions (See protocol)
- ≅ Establishes permissive environment (See some common rules)

Analysis and Reporting

- \cong Each partner transcripts the focus groups in their mother tongue, keeping in count the definitions of the petals
- \cong Each partner analyses the answers, providing a summary in English of relevant elements (use the given questions), based in the different categories agreed for analysis.
- \cong Send the report (to the mail.....)
 - Organization

Remember:

- a. Send a Personalized Letter. Soon after the person has agreed to participate, send him or her a personalized letter. Don't use a generic salutation, such as "Dear Friend." This letter should thank the person for agreeing to participate and confirm the date, time, and place.
- b. Send a Reminder. Phone or contact each person the day before the focus group to remind him or her of the group: "I'm looking forward to seeing you tomorrow at. . ."

During the focus group:

- a. Use Pauses (5 seconds pauses) and Probes to Draw Out more Responses such as "Would you explain further?"; "Can you give an example?"; "I don't understand"; Tell me more."
- b. The moderator shoul avoid showing signs of approval or disapproval. Avoid verbal cues like "that's good" or "excellent".
- c. Don't correct participants during the group.

- d. Do not decame defensive if participants tell you they think your program is horrible. Instead, try to get information that will help you understand their perspective.
- e. Everyone shoud have the opportunity to share.
- f. Control dominant talker by thanking them for their imput and asking for others to share.
- g. Call on quiet participants. "I don't want to leave you out of the discussion. What would you like to add?".

Conclusion

Remember: Use an appropriate conclusion.

- a. Summarize the key points of the discussion and ask confirmation. Usually the assistant moderator does this: it means summarize 3 to 5 of the most important points.
- b. Review the purpose and ask if something is missing.
- c. Thank the participants and conclude the session.

FOCUS GROUP

Outline

Welcome

- Welcome everyone
- Introduce moderator and assistant

Introduction: An overview of the topic

"Our topic is in-service teachers training"

"The results will be used to fulfill a survey conducted at a transnational level using quantitative tools. The survey results will be further enriched using qualitative approaches.

We will write a descriptive report on teacher training needs related to the four target competence areas: creativity, inclusiveness, didactic innovation, digitally-enhanced teaching and learning.

You were selected because we need to investigate directly from teachers their description about the training needs of teachers in relation to the target competences".

Guidelines for participants

There are no right or wrong answers, only differing points of view.

We're tape recording, one person speaking at a time.

We're on a first name basis.

You don't need to agree with others, but you must listen respectfully as others share their views.

Rules for cellular phones: turn off your mobiles.

My role as moderator will be to guide the discussion

Talk to each other, don't talk to the moderator.

Opening question

Would you please introduce yourself?

Main questions to discuss:

- If you might choose a training course, what are the main characteristics it could have? (topic, number of hours involved, organization, practical aspects...);
- 2. Imagine this circumstance: (authentic/real educational context)

a) (innovation)

Two colleagues, in the first years of teaching, complain of difficulties in involving the class in the proposed activities. Traditional teaching does not seem to be effective. What would you suggest? In particular, which training courses would you recommend, both concerning the topics covered and the organizational and methodological aspects of the course itself?

b) (creativity)

You and your colleague want to lead your pupils to develop / produce something material / immaterial, new, which combines and adapts elements they know to achieve the purpose of build on a "Creativity corner" in their classroom. In this way they explore ideas with curiosity, playful spirit, imagination, resilience and persistence, using different materials, through exploration and playing with possibilities. What are the tools and skills you need as a teacher that you could develop through training?

c) (inclusion)

You want to organize a small work group for the construction of a vegetable garden. Each group will act in different moments of the work (one group will prepare the ground, another will plant the seeds,...). This aimes to create: a. Responsibility– from caring for plants; b. Understanding– as they learn about cause and effect (for example, plants die without water, weeds compete with plants); c. Self-confidence – from achieving their goals and enjoying the food they have grown.

How to allow all children to be able to express themselves according to their potential? How to get success in creating inclusive environments for children? What kind of training do you feel you might need?

d) (digital competences)

Two teachers decide to propose to their pupils to create an identity card of their favorite animal, public or fictional figure, combining text and images, aimed at enabling pupils to use some specific functions of the software, to create at the end a Classroom identity card collection, which combines all of them.

Children will have to insert and edit the searched and selected images / information online, correctly within the text, both online and framed. This implies how teachers perceive that their activities for social and cultural competences bear digital connotations in practice.

What skills will teachers need? What kind of training course would you suggest to them?

3. What are the needs that you perceive in this particular moment of your professional life? Could you explain why?

Annex 2

Characteristics of Focus Group Interviews - Target: Secondary school teachers

PROCEDURE

- Participants
- ≅ Carefully recruited
- ≅ 5 to 10 people per group, 6-8 preferred
- ≅ Similar types of people: primary school teachers
- ≅ Repeated groups for interwiews, if possible
 - Environment
- ≃ Comfortable
- ≅ Circle seating
- ≅ Tape recorded
 - Moderator
- ≅ Skillful in group discussions
- ≅ Uses pre-determined questions (See protocol)
- ≅ Establishes permissive environment (See some common rules)
 - Analysis and Reporting
- \cong Each partner transcripts the focus groups in their mother tongue, keeping in count the definitions of the petals
- ≅ Each partner analyses the answers, providing a summary in English of relevant elements (use the given questions), based in the different categories agreed for analysis.
- ≅ Send the report (to the mail.....)
 - Organization

Remember:

- a. Send a Personalized Letter. Soon after the person has agreed to participate, send him or her a personalized letter. Don't use a generic salutation, such as "Dear Friend." This letter should thank the person for agreeing to participate and confirm the date, time, and place.
- b. Send a Reminder. Phone or contact each person the day before the focus group to remind him or her of the group: "I'm looking forward to seeing you tomorrow at. . ."

During the focus group:

a. Use Pauses (5 seconds pauses) and Probes to Draw Out more Responses such as "Would you explain further?"; "Can you give an example?"; "I don't understand"; Tell me more."

- b. The moderator shoul avoid showing signs of approval or disapproval. Avoid verbal cues like "that's good" or "excellent".
- c. Don't correct participants during the group.
- d. Do not decame defensive if participants tell you they think your program is horrible. Instead, try to get information that will help you understand their perspective.
- e. Everyone shoud have the opportunity to share.
- f. Control dominant talker by thanking them for their imput and asking for others to share.
- g. Call on quiet participants. "I don't want to leave you out of the discussion. What would you like to add?".

Conclusion

Remember: Use an appropriate conclusion.

- a. Summarize the key points of the discussion and ask confirmation. Usually the assistant moderator does this: it means summarize 3 to 5 of the most important points.
- b. Review the purpose and ask if something is missing.
- c. Thank the participants and conclude the session.

FOCUS GROUP

Outline

Welcome

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Opening question

Would you please introduce yourself?

Main questions to discuss:

- 1. If you might choose a training course, what are the main characteristics it could have? (topic, number of hours involved, organization, practical aspects...);
- 2. Imagine this circumstance: (authentic/real educational context)
- a) (innovation)

Two colleagues in the first years of teaching complain of difficulties in involving the class in the proposed activities. Traditional teaching does not seem to be effective. What would you suggest? In particular, which training courses would you recommend, both concerning the topics covered and the organizational and methodological aspects of the course itself?

b) (creativity)

You and your colleague want to lead your pupils to develop / produce something material / immaterial, new, about a Citizenship development, exploring urban design in different countries: it was asked if they had been to any of the countries being discussed and looking to solve some of the problems of urban environments, such as over-population and waste disposal. This means to combine and adapt elements they know to achieve a purpose, so that they explore ideas with curiosity, playful spirit, imagination, resilience and persistence. What are the tools and skills you need as a teacher that you could develop through training?

c) (inclusion)

You want to organize a small work group for the construction of an Association who take care of teenagers and involve them in the activities outside the school (late afternoons, weekends, summer, etc.): this means to represent activities for democratic citizenship, including activities that foster societal engagement or respect for diversity in perspectives. Each group will act in different moments of the work (one group will prepare the aims, another will set up the agenda, another will prepare social activities...). How to allow all students to be able to express themselves according to their potential? How to succeed in creating inclusive environments for teenagers? What kind of training do you feel you might need?

d) (digital competences)

Two teachers propose to the students to produce a "Holiday Guide", aimed at enabling the students to use specific digital skills such as "developing content", "integrating and reworking" and "copyright and licenses":

Students will have to create content in different formats, including multimedia and express themselves creatively through digital media and technologies; use existing resources by creating new and original content; apply the rules relating to copyright and licenses regarding the information and content used. This implies how teachers perceive that their activities for social and cultural competences bear digital connotations in practice.

What skills will teachers need? What kind of training course would you suggest to them?

3. What are the needs that you perceive in this particular moment of your professional life? Could you explain why?

Annex 3

See the attached file