

INDUCTION MODELS AND TEACHERS PROFESSIONAL DEVELOPMENT

SOME RESULTS AND INSIGHTS FROM THE PILOT EXPERIENCE OF NEWLY QUALIFIED TEACHERS 2014/2015

Giuseppina Rita Mangione¹
Maria Chiara Pettenati¹
Alessia Rosa¹
Patrizia Magnoler²
Pier Giuseppe Rossi²

¹ INDIRE, sedi di Napoli, Firenze, Torino - Italy

² Università di Macerata, Macerata - Italy

Keywords: Induction, e-portfolio, Teachers' Satisfaction, Quali-quantitative Results.

The initial training programmes for teacher induction to school activity need to be integrated within a recursive self-sustaining circularity, able to produce professional skills. The present work analyses the models and perspectives that have characterized the professional development in Induction experiences and defines an innovative theoretical framework underpinning the experience of Italian Newly Qualified Teachers (NQT) in the 2014/2015 academic year, based on a pattern which envisages an alternation of theory-practice and reflection. Such a pattern finds in the teacher's portfolio, structured into training curriculum, teaching and competence assessment, a time of tight integration of the perspectives that guide the teacher's work, maximizing moments of action, reflection and appraisal. It will present methodologies and tools to investigate teachers' perception about the role of the portfolio and whether it was a model capable

for citations:

Mangione G., Pettenati M.C., Rosa A., Magnoler P., Rossi P.G. (2016), *Induction Models and Teachers Professional Development - Some results and insights from the pilot experience of Newly Qualified Teachers 2014/2015*, Journal of e-Learning and Knowledge Society, v.12, n.3, 129-158. ISSN: 1826-6223, e-ISSN:1971-8829

of accompanying the new qualified teachers in an authentic way, letting teachers understand their competences and practices.

1 Introduction: Models and Perspectives

The first years of teaching are, according to a large number of studies, a critical period for the professionalization process of teachers (Feiman-Nemser, 2001; Wang, Odell & Schwille, 2008).

According to “Developing coherent and system-wide Induction Programmes for beginning teachers. A handbook for policy makers” (Snoeck *et al.*, 2010): “*becoming a teacher should be seen as a gradual process, including initial education, the induction phase and continuing professional development. The point at which newly qualified teachers transfer from Initial teacher Education and move to professional life is seen as crucial for further professional commitment and development, and for reducing the number of teachers leaving the profession*” (*ibidem*, p. 13). Effective induction programs should provide all new teachers with systematic personal, social and professional support in the early years of the career. They can therefore also help improve school and teacher performance (*ibidem*, p.13).

From a research perspective, it is possible to identify some trends that marked the induction programs in the last 30 years and that helped to reconsider the role of the teacher in his/her professional development.

Since the mid-1980s to mid-1990s, the prevailing approach of induction programs is “instruction related support” (Gold, 1996), considered necessary to get an effective classroom/class practice. The path of teacher professional induction is conceived as a “*deficit model*”: the incoming teachers are still unable to perform well all the activities required by their professional profile and an induction program aims to help them bridge this gap. This vision implies a view almost exclusively focused on the organization and management of teaching activities and on the development of “instructional routines”.

Since the mid 90’s to the early 2000, the induction came increasingly to be part of an integrated approach in order to provide support, opportunities for development and evaluation moments based on standards for teaching and learning, promoted in collaboration between school and university, and characterized by a strong component of “mentoring”, able to propose challenges and trajectories of change (Feiman-Nemser, 2001). By focusing on the importance of learning to teach through practice, induction programs begin to find their own specific role in the teacher’s career path: a bridge between teacher education and teachers’ continuing professional development.

From the mid-2000s to today the induction program has been recognized to be very important for newly recruited teachers when developed within the

school environment and if accompanied and embedded into a national policy for teachers' professional development. In accordance with the idea of "growth model", new teachers are required to actively contribute to the development of the school, since they have many competences and skills to offer and are involved in the changes and transformations of teaching and school-making (Tickle, 2000). The induction of new teachers is therefore an aspect of the wider concept of "school's learning community".

During this period the number of induction programs at national level grew exponentially: as reported by Smith and Ingersoll (2004) in the USA about 80% of incoming teachers were supported by formal actions, and this trend also affirmed in other countries (for example, in Australia, UK, China, Israel, New Zealand).

Britton, Paine, Pimm, and Raizen (2003) studied the various induction programs and emphasized interesting differences. For example, in France, these programs are born with the goal of shaping the teaching profession and included courses and assistance to a second school, while in Switzerland and New Zealand the purpose of the induction phase was related to the development of a person as a whole through peer discussion, cooperation and reflection (Howe, 2006).

In recent years, from 2010 onwards, in line with a postural change based on teacher awareness and reflection, the induction path is characterized as an educational pattern providing action-reflection recursion. The "alternation model" enhances the recursion between practice immersion and reflective spacing (Vanhulle, Merhan & Ronveaux, 2007; Buysse & Vanhulle, 2010; Achinstein & Davis, 2014). According to this vision, the educational act is a privileged place to explore teaching and connect theoretical and practical knowledge within the profession (Rossi *et al.*, 2015) which can find a concrete support to the deliberate development of professionalism (Durand & Filliettaz, 2009) in the processes of peer-to-peer co-explication (Vinatier, 2009). This new vision is accompanied by the enhancement of teachers' social integration and of professional teaching communities (Taranto, 2011), providing space to share and develop practices as well as to manage the *reality shock* (Kearney, 2014; Correa *et al.*, 2015).

The current perspective is influenced by paradigmatic changes revolving around "action" considering the action as a privileged place to explore teaching, and connecting theoretical and practical knowledge within the teacher's work (Vinatier, 2009; Pastré, 2011), and reinforcing a relationship among "before-during-after classroom activity" (Theureau, 2006).

Reflection, seen as a look over the action, and a part of competence, (Perrenoud, 2001) leads to awareness of one's own conceptualizations. Reflection contributes to building and revisiting the *habitus* (Perrenoud, 1996; Magnoler, 2011) namely concepts, patterns, routine of their professional practice (Tochon

& Munby 1993; Mezirow, 2003).

To effectively respond to these paradigm shifts, it is essential to rethink the traditional training paths by introducing a *pattern* that provide an “action-reflection” recursion. The alternation, therefore, becomes a “key element” of this pattern and can be seen both as a concept, i.e. recursion between theory and practice, and as a process, i.e. recursion between practice immersion and reflexive exercise of distancing (Buysse & Vanhulle, 2010).

For the purpose of reconstructing this pattern based on “alternation”, the paper will focus on the experience of Newly Qualified Teachers (NQT) 2015, and on a specific, experimental, online e-portfolio model, and will show the results related to a phase of analysis about satisfaction and effectiveness of the path.

After presenting the emerging models and a brief overview of how the induction is tackled at international level (Sections 1 and 2), this work will focus on the experience of induction in Italy (Section 3). It will present methodologies and tools to investigate teachers’ perception about the role of the portfolio and whether it was a model capable of accompanying the new qualified teachers in an authentic way, letting teachers understand their competences and practices (Section 4 and 5).

2 European Views and Key Facts Concerning Induction

Induction programs vary from country to country (Howe, 2006; Wong *et al.*, 2005) and this variation is expressed in terms of duration, educational components, sources, organization, target, intensity and completeness. Mentoring tends to be a transversal component integrated with elements such as orientation, digital assets, reduction or balancing of workloads, classroom observations, workshops and seminars (Kemmis *et al.*, 2014; Ingersoll & Strong 2011; Ingersoll & Smith, 2004; Wong, 2005).

Often, newly qualified teachers have access to a compulsory, structured induction phase usually lasting about one year (see Fig. 1), ending with an evaluation, which may confirm the teachers’ recruitment (European Commission, EACEA, Eurydice, 2015). While mentoring (89%), scheduled meetings (88%) and courses/seminars (60%) are quite uniformly put in place in all European countries, other forms of support during induction are less diffused (Team teaching, 40%; Networking/virtual communities, 37%; Peer review, 34%; Collaboration with other schools, 29%; Diaries/journals, 26%).

In some cases, however, even though many have been examples of “comprehensive induction programs” (Britton *et al.*, 2003; Luft, 2007) there are been a lot of criticism about the weakness of the content, to the non-compliance with respect to the explicit needs of teachers (of various levels of school) and the lack of a strong theoretical framework that presents a broader view of the role

that a training program can play in developing new teachers (Kane & Francis, 2013).

The goal should be to provide new teachers a good orientation and reflection opportunities that facilitate the processes of gradual “acculturation” of their profession (Howe, 2006).

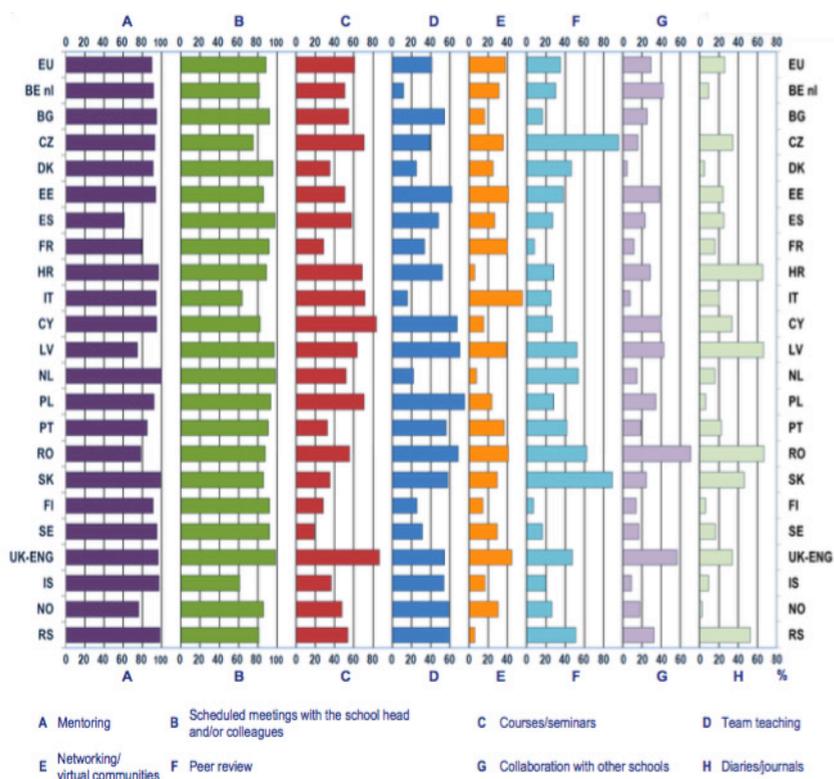


Fig. 1 - Activities that characterize an induction path (source: European Commission, EACEA, Eurydice, 2015).

According to A Multifaceted Approach to Teacher Induction (Bickmore *et al.*, 2010) an effective induction is as a systematic process embedded in a healthy school climate that meets the teachers’ personal and professional needs. Induction program should be “multifaceted”, involving regular collaboration with colleagues, orientation seminars, networking with other teachers and promotion of collaborative practices, reduced teaching load and teacher aid, reflective writing and observation of colleagues’ teaching.

3 Pilot Experience: The Italian Newly Qualified Teachers Path

The Newly Qualified Teachers' (NQTs) experience in 2014/2015 involved 28,716 teachers in Italy during the 2014-15 academic year (13,446 of whom were support teachers). The newly qualified teachers are the ones that the Italian state hires permanently and allocates in the various schools depending on vacancies.

The first year is also a trial year, during which the hired teachers must carry out a series of training and reflection activities and then must take an exam at the end that includes an interview with the Assessment Committee of the school they teach at.

Before 2014-2015, there was also a dedicated path for newly qualified teachers, but the structure was extremely different: the teachers had to study content online (instructivist approach) and write a dissertation where they described a theoretical approach and a teaching experience connected to it. The evaluations made at the ministry had shown the low level of efficacy of the path for the teacher's professionalism and the lack of originality and significance of the final products. Hence, a new proposal for the 2014/2015 academic year.

In the 2014-15 academic year the Italian Ministry of Education, Universities and Research (MIUR)¹ decided to arrange a path that aids professional development. The path revolves around an innovative concept of "Alternation" also recalled in the subsequent law 107/2015. To effectively address these changes, the training paths, especially induction programmes (structured to support newly hired teachers) will be included in a recursive, self-sustaining circularity which produces professional skills integrating patterns based on an acquisitive posture, with patterns characterized by awareness and reflective posture.

The purpose is to influence practices through a process that alternates between moments of immersion and distancing, which are actualised in: "*When I teach*" and "*When I reconsider my teaching to think of what happened*".

Teacher training must implement as habitual the activation and operation of recursive paths between theory and practice, the reflection and conceptualization concerning practice, the search for connections between personal conceptualization and the theorizing by the scientific community. In order to make these operational conditions a habit, we propose an innovative pattern that enables the teacher to analyse their practices, activates recursive paths of distancing and immersion declares and documents their professional history to support a reflective attitude. This pattern makes explicit the relationship between theory and practice: "*I am immersed, then I take distance*", "*I am in action, then I think of what I'm doing*". Improving and taking action on one's

¹ The guiding ideas for the online path were set out by MIUR while it was structured and implemented by INDIRE, the Italian National Institute for Documentation, Innovation and Educational Research in collaboration with the University of Macerata.

own formative process involves being aware of their professionalism and way of acting.

One part of the course is attended; the other part is distance learning. Face to face course is organized as follows: (1) two meetings, one at the start and one at the end, one for each province, during which the path is explained, together with the overall sense of the course; (2) some meetings on topics that have taken on the format of laboratories, and finally, (3) a number of activities at the school the teacher belongs to where the teacher, supported by a guiding teacher, takes part in some of the latter's lessons and even takes some lessons in the presence of a guide. In a dedicated online environment, identical nationally, the teachers make a number of reflections about their professional identity, and document their teaching work and professional nature.

The path moves between attendance and distance, using the principle of alternation as described above.

3.1 The Online Portfolio: Toward Teacher's Professionalism

The environment devised for the 2015 Newly Qualified Teachers is a Teacher e-Portfolio. Thee-Portfolio is on line space where teachers can build around the path global significance (Barrett, 2003; Danielson & Abrutyn, 1997), develop a greater awareness of its teaching activities and look the continuous professionalization (Imhof & Picard, 2009).

This on line environment presenting moments in which the task of the newly hired teacher is redesigned as a trajectory that guides them to regain possession of their professional history: Where do I come from?, Where am I?, Where am I going as a professional?, the Teacher Portfolio (Cerini, 2011, Rossi *et al.*, 2011; Rossi *et al.*, 2015) is split into three work spaces, as shown in Fig. 2: Training Curriculum, Documentation of Teaching Activity and Balance Sheet of Skills.

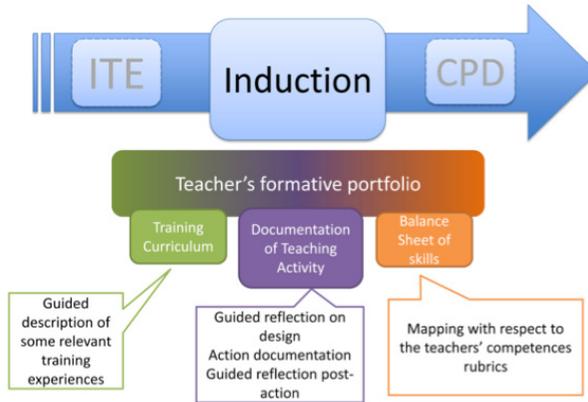


Fig. 2 - The use of teacher's formative portfolio in the Induction program along a continuum from Initial Teachers Education (ITE) towards Continuing Professional Development (CPD).

In order to face the large number of users (28.000 in 2014/2015, 85.000 in 2015/2016), the implemented architecture works on a battery of web servers processing users' request and providing responses. Each server has a connection to a Network Attached Storage for the shared storage and to two DBMS (Oracle and MySQL) used by the different application's modules.

The registration procedure is autonomously conducted by the teachers, whose identity is verified against the national database of MIUR.

The application modules are mainly constituted by forms allowing the insertion of data and metadata, through the use of fields and dedicated guiding-questions for each workspace.

This is analogous for the Didactic Activity – Design (form with guiding questions and metadata), Documentation (form with metadata and multimedia material uploading facility) and Reflection (form with guiding questions and metadata), and for the Balance Sheet (form with guiding questions and metadata). All the monitoring questionnaires are implemented using LimeSurvey tools and embedded into the on line environment. Once all the activities are concluded, the environments enables the function of "Export Portfolio in PDF", a specifically implemented function that allows to dynamically created a complete PDF document containing all the filled fields introduced by the teachers in the different activities.



Fig. 3 - Web environment for Neoassunti 2015 training.

The web environment (Fig.3) presents three workspaces that correspond to three specific questions. The Training Curriculum (“*Where do I come from?*”) allows the teacher to think about which experiences, both in training and in life, have marked his/her way of being a teacher, how they have influenced his/her educational philosophy. The Documentation of Teaching Activity allows a teacher’s modus operandi (“*Where am I?*”) to be better understood. By describing a micro activity, from when it is planned to when it is implemented in the classroom, to post-activity consideration, the teacher can show some of his/her ways of working and organizing teaching activities. Lastly, the Balance Sheet of Skills should allow a future direction to be identified (“*Where am I going as a professional? Which areas of my professionalism do I want to focus on in the future?*”), and is divided into two sections: the first one that focuses on the skills already possessed, the second one where the skills that need to be worked on are explained.

3.2 Training Curriculum

Where do I come from? This space is broadly intended to pursue the aim of tracing a path that includes the alternation of experiences, both formal and informal, considered meaningful by the newly hired teachers to show situations that have contributed to their professional training. Research has found that the acting of a teacher is largely dependent on training experiences that have “marked” his/her evolution as a student, as a professional and a subject who learns.

The experiences achieved over the time serve the purpose of putting the subject in front of them, that is, they allow the subject to select what experiences result to be more impactful. In this way, the subject is implicitly led to investigate the experiences that have had an effect on the practice they carried out.

In the Curriculum, the teacher was asked to describe five experiences that

had marked his/her own way of being a teacher, in order to rebuild the teacher's identity. In addition to describing each activity the teacher had to indicate how the teaching experience changed or guided his/her identity and what he/she learnt. For each selected experience, the teacher was asked to distinguish whether it was functional to the acquisition of concepts or skills that have enriched him/her culturally or allowed him/her to learn new subject content or develop new beliefs on teaching or on the role of a teacher. Choosing is one of the hardest things. It means to select, analyse, understand and then to define whom you are.

Revising the selected experiences can be seen as an opportunity to better understand how the image that currently everyone has of himself or herself as a teacher, has evolved.

3.3 Teaching Activity

Where am I? How do I approach the teaching activity? The philosophy that guided the definition of this space is not to provide design or activity patterns. The goal is to help the newly employed teachers to understand the actions that he/she usually performs. At the root of the teaching activity competences is a *mobilization* of resources. Task of the pattern is to explain and make explicit to the probationary teacher how this mobilization takes place.

The teacher is supported through guiding questions to let them understand the consistency of the designed, simulated and acted activity. He/she is guided through moments of reflection on the internal consistency of the designs, only working in depths on a lesson. In this way, the teacher is able to trace back the reasons for his/her acting. This process is also strongly supported by Documentation strategies that allow the teacher to reactivate his/her attention to practice through such traces, evidences, and not only impressions. The teacher is asked for the Documentation to describe a micro-activity, comprising one or at most two lessons.

The involved teachers included 4 types of materials into the documentation of planning and action, in addition to the initial project: (a) items arranged by the teacher for carrying out the activities, (b) materials made by the students during activities, (c) materials useful for documenting action in class (videos, photographs, descriptive texts, audio recordings), (d) first impressions of teacher, students or tutor.

Attention to the working session allows us to understand the way in which the teacher chooses their activities, including consistency of goal, mediators and overall verification. By analysing the activities, it is possible to grasp how the teacher manages to systematize and coordinate these elements. This is a central moment of the teaching activity.

In addition, in each phase (planning, action, and final consideration) they

were supported by the presence of some questions used to reflect on the processes, on ways of carrying them out, and on the theoretical references adopted.

Meaningfulness is the criterion that drives the selection and recount of experiences through the many documenting materials. Reflecting spontaneously helps the newly hired teachers to re-build their own way to implement the didactic transposition.

Lastly, the newly hired is required, through the tool “View”, to compose a page: namely, he/she can construct a story including the media elements he/she utilized for documenting himself/herself, and structuring a personal narration of the teaching activity.

Using the “view”, namely, a space for arranging chosen materials to document, the teacher can present resources he/she used in classroom activities, basing on their significance, or on a temporal logic.

The “stimulus-like” questions on the consistency of the performed action, the perceived differences between provided and acted planning, the difference detected between expected and obtained results, have been processed with the aim of identifying key elements that will be resumed and reinforced by the teacher in follow-up activities, and critical elements to be improved by deepening theoretical aspects as well as experiencing other paths.

Forms of rationality that are functional to analyse the planning and to position it according to the results achieved support the change in the teaching action.

3.4 Balance Sheet of Skills

The Balance sheet of Skills, included into the path provided for the newly qualified teachers, has a training aim since it allows each professional to place themselves within a professionalising trajectory defined at the international level, and to periodically draw operational guidelines in order to feed their own skills.

The balance sheet underlies 3 shared items from both the research and the training at an international level:

1. A balance sheet is made of defined competences.
2. The teacher is a reflective practitioner.
3. A professional self-design.

Basing on these three principles, we have rethought the balance as a solicitation for the newly hired to restart towards a trajectory (ref. law 107/2015) which has been designed to build a community that builds another professional culture, starting with newly qualified teachers, involving tutors and then expanding to the whole school.

One of the critical issues about the teaching profession was the spirit of widespread de-professionalization in both English-speaking and French-speaking environments.

The spheres that characterize this aspect are two: *loss of autonomy* (when the teacher does not feel in control of his/her own teaching, and thinks of being the executor of a programme defined by others) and *multiplicity of tasks* (reports, meetings, etc. that do not allow to focus on teaching anymore). Moving teacher's professionalism out of the classroom and enhancing the role they have created within the school was one of the objectives to be achieved.

Another objective, which the balance sheet is intended to answer, is to accompany the *teacher's mobility*. It is important to give value to different skills so that, through a balance sheet, the teacher may be helped understand how to become more productive, helpful and functional to an organization. The balance sheet helps realize where to get the best of oneself, what trajectories to choose and what functional structures to contribute to.

To organize the Balance Sheet of skills (third part of the Portfolio), an analysis of the various international perspectives was carried out (French Referenciel, English Teacher Standards, MEQ in Quebec, *in primis*) and then a structure suited to the Italian context was created, with the Italian Ministry of Education Guidelines as a background. The balance sheet, however, implies a backstory. It was necessary to define the teacher profile, which in Italy is not accompanied by regulations.

A balance sheet that is not neutral comes from a series of identified skills, able to frame a kind of teacher, who is "sustainable and spendable" in the Italian school.

Although, a reference in the D.M 249/2010, reports a distinction between teaching sector and affiliation sector, rethinking the skills and how to direct the training path in accordance with this set of skills would have required us to detect the difference between prescribed and real elements. To bridge this gap, we have selected the European skills profiles, revised in relation to the Italian teacher. We have observed a convergence with the 10 families of skills by Perrenoud (Perrenoud, 2002). The first 4 out of 10 skills are centered on teaching activity. The central ones concern with organization, the latter are dedicated to the care for the professional self.

The Newly Qualified Teachers are given a list of skills divided into three areas (the teacher and the class, the teacher and the school community, the teacher and his/her own professionalism) from which they must initially choose the ones that they believe they already possess, and then the ones on which they must work. There are three text fields, one for each area, where they can describe the level reached and the development paths.

Such an idea is based on an instrument, namely the balance sheet, which

is also instructional. Besides being a set of *descriptors* that the newly hired teacher undertakes to analyse and choose for building their own analysis, it is also accompanied by a set of guiding questions that help to disambiguate meanings. We believe that today's and tomorrow's professional cannot exempt themselves from understanding how to manage a formative assessment process.

The balance sheet has been bent with questions intended to be exploited in collaboration with the tutor. Questioning, discussing and debating on the items (e.g. formative feedback) is therefore a formative moment in itself.

The balance sheet is very demanding because of the many descriptors, but, if accurately done, helps accomplish the three key actions:

1. Activate the attention during the *p2p observation*; reflecting on the item and discussing about it allows us to define the focus to be considered during the observation, which, in turn, will be followed by a discussion. In the final balance sheet then, I will resume the same items. What I am considering now is not a radical change of professionalism, but how the newly hired teacher manages to self- design in very specific areas.
2. Build the *training documentation*; the sense of action is understood by collecting traces.
3. *Support the discussion* between tutor and newly hired teacher on these issues, so that the phase of the dossier construction / investigation can be much easier and more oriented.

Finally, the NQT is faced with a balance sheet seen in perspective, a future balance sheet. *Now that you are here, where do you want to go to?*

Asking this question serves the scope of helping them head towards the future, in line with investments on teacher training (for example: use of the *bonus*), trying to support reflection on specific areas of intervention and building a new mode of thinking of oneself that gives the feeling of becoming competent.

The underlying idea that guides this path is to help eradicate the de-professionalization settled in school and in teacher activity.

4 Research: Methodology, Tools and Analysis of Results

This research has the scope of investigating on how reflective posture might generate professionalism within the path that newly qualified teachers 2014/2015. Methodologies and Tools developed intend to investigate in particular the self-perception of the teacher and satisfaction.

4.1 Methodologies and Tools

The research topic is then clarified through two specified questions:

- What value does a process of reflection on action and for action produce during the probation year of newly hired teachers?
- Does the teacher as a functional development of his/her perceive change, fostered by different online path activities, professionalism?

The distance activity that is part of the 2015 Newly Qualified Teacher path has been assessed using quantitative and qualitative methods and tools, useful for *real word research*, aimed at identifying the functions and efficacy of the proposed tool, according to the perception of the teachers involved (Cohen *et al.*, 2000; Robson, 2002).

For quantitative phase, we used highly structured questionnaire, because closed questions are useful in that they can generate frequencies of response amenable to statistical treatment and analysis. They also enable comparison to be made across groups in the simple. The high sample size has required a first quantitative analysis. Subsequently we organised 4 focus groups in various regions of Italy (Campania, Friuli, Emilia Romagna and Toscana) for gathering qualitative data.

For qualitative phase, focus group were useful to orient the interpretation of specific answer retrieved by questionnaire and for gathering data on attitudes, values and options.

4.2. Analysis of Data from the Online Questionnaire

At the end of the training path, a questionnaire has been administered to the participants in the online Portfolio, aimed at investigating whether such an environment has allowed the teacher to reconstruct and understand their teaching action, to reflect on practice and identify trajectories of professional improvement.

The analysis refers to data collected up to 31 July 2015 for a total of 26,957 newly hired teachers. The questionnaire was designed with the objective of investigating the perceived effectiveness of the Portfolio, and its sections, the site navigability and, teachers' sharing behaviour.

The data collected have made it possible to identify any measures that will improve the proposed Portfolio (Pettenati *et al.*, 2015).

Given these objectives, the data were processed through the calculation of simple frequencies, without investigating possible correlations amongst the variables.

The questionnaire structure, predominantly consisting of closed questions requiring single answers, is organized in 10 questions, with predominantly closed questions, aimed at investigating different aspects of the proposed Portfolio, specifically:

- Activity: “curriculum”
- Activity: “design-documentation-reflection related to a teaching activity
- “Balance sheet of skills”
- Overall online experience
- Site navigability
- Attitude towards sharing their created portfolio

Regarding the first point on the list, the teachers have stated that the curriculum development enabled them, firstly, to strengthen their awareness of their professional path (83%), secondly, to grasp the importance of specific training experiences (80%) and finally, to reorganize prior learning experiences, giving new meaning to the professional path (86%) (see Fig.4).

The choice made among the three aspects mentioned above (each of which included a specific question whose answers were presented in an aggregated mode) shows no substantial differences, and allows us to hypothesize a substantial large attribution of significance to the curriculum development, which seems to be rather useful from different points of view.

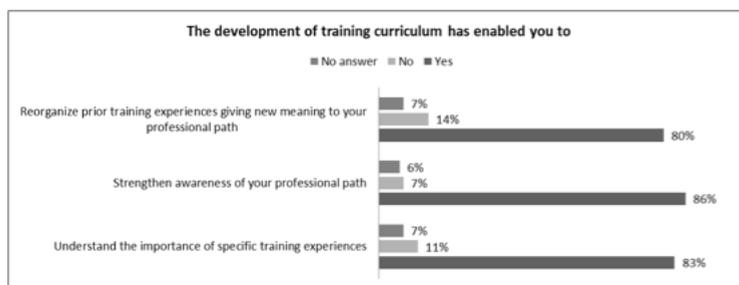


Fig. 4 - Elements recognized as being functional to development of training curriculum.

The activity of “planning-documentation-reflection on teaching” has proved particularly useful for what concerns the understanding of planning trajectories (82%). The main factors influencing it (81%). Less than a half of newly hired teachers have identified, through reflection on didactic planning, elements not previously considered (see Fig.5).

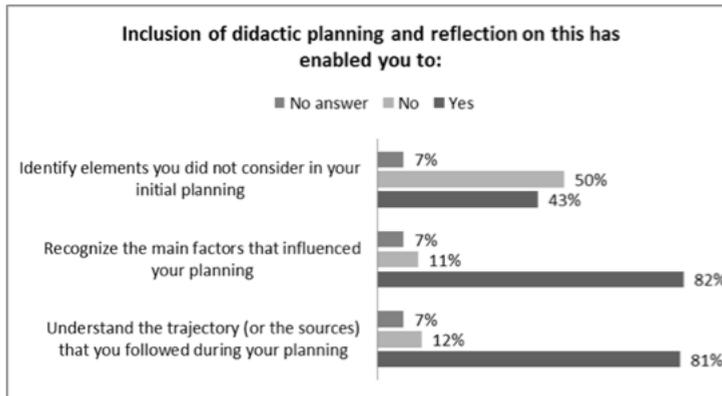


Fig. 5 - Elements helped by reflection on didactic planning.

Teachers have been asked to give an order to the proposals meant for documenting, and to indicate the ones they considered most effective. The ability to reflect on the activity is regarded as the most functional, probably because they were able to re-analyse, calmly and through a structured support, their previous and current experiences.

In second place is the ability to gather the materials used during lessons and / or prepared for student activities. The materials produced by students during the activities have been mostly mentioned as a third choice. The documentation related to the teaching activity with the help of audios, videos and photos ranks last place among the choices made by teachers, since its organization is not included in the didactic routine and appropriate disclaimers should be acquired.

It is interesting to note that through the overall reflection on the teaching activity chosen, the teachers report that they were able to rethink firstly the achievement of objectives, and secondly the activities that resulted to be more successful. The validity of the evaluation is in third place.

The activity on the balance sheet of skills has been for 83% of newly hired teachers useful to find aspects of skill on which to plan their future training, giving it a significance that transcends the mere process of induction. This activity has also been useful for 81% of teachers to understand more thoroughly different dimensions of the professional skills, thus opening multiple perspectives on teacher professionalism, and allowing (this element has been chosen by 78% of teachers) to outline in its entirety the professional role of the teacher, increasingly rich and complex.

Finally, 75% of teachers has discovered, through the activity made on the balance sheet, the most characterising aspects of their skills (see Fig. 6).

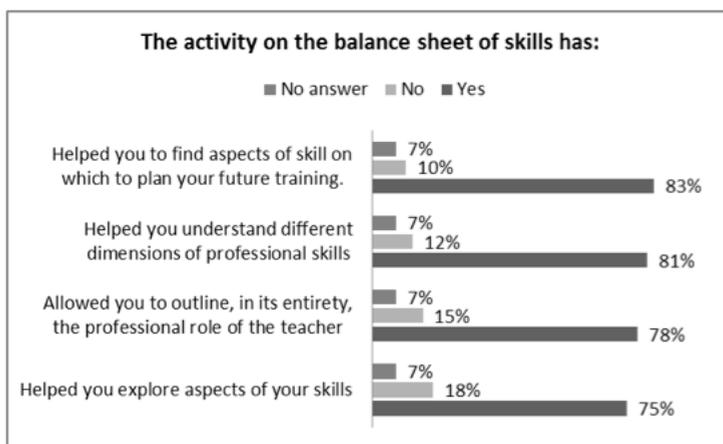


Fig. 6 - The perception of balance sheet of skills.

The online path has been widely praised by the newly hired teachers, who have deemed it as a valuable tool for analysing the teaching practice (80%) and identifying professional goals to be achieved (76%).

Finally, for 70% of teachers, the proposal has been functional to build their professionalization path becoming a nurturing element in the analysis and revision of their being a teacher today (see Fig. 7).

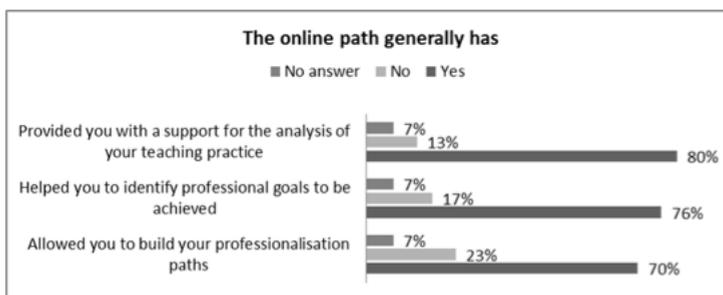


Fig. 7 - How the newly hired teachers rated the online path.

The effectiveness of such a complex path, from the point of view of subjective reworking, has been well supported by the platform frame, which, overall, has been positively evaluated in all its parts by the participants (see Fig. 8).

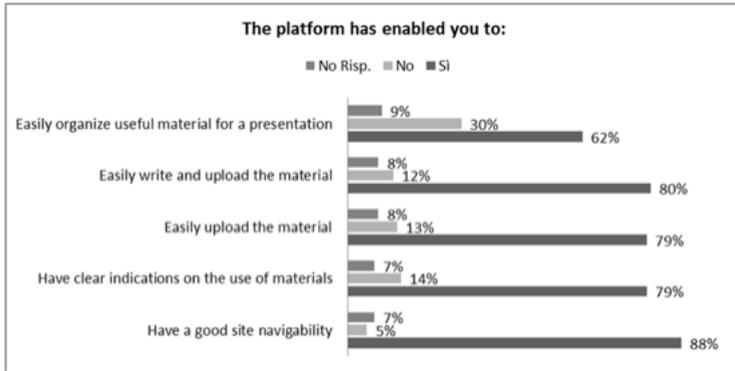


Fig. 8 - The add value of platform.

The total data collected, represent for the research and implementation team, a sound basis for improvement and development an efficient induction Italian path.

4.3 Analysis of Regional Focus Groups and Recurrences Compared with Quantitative Data

In general terms, this section is meant to report feedbacks relating to sharing and consent received on the overall proposal, in that it clearly embodied the message of considering the teacher as a “reflective practitioner,” able to reflect and enhance their professional trajectory. The section has fully captured the idea behind the innovation initiative advocated by the Italian Ministry of Education, University and Research (MIUR).

The validation of data collected through the questionnaire was supported by a phase of qualitative analysis, aiming at interpreting quantitative findings, through the creation of four national focus groups, which include a representative sample of newly qualified teachers coming from southern (Campania), central (Toscana and Emilia Romagna), and northern Italy (Friuli Venezia Giulia).

Object of investigation of these focus groups is primarily “the experience” lived by the participants in the path, to understand how the teachers have perceived their training with special attention to their use of the portfolio, and whether there are traces of repercussions on conceiving new reflective and / or training processes. What emerges from the outset is their appreciation for personal work, which led to enhance their professional skills, and a greater awareness of their actions, thanks to targeted questions and competence rubrics. Partial results of these focuses to date, endorse the content-related decisions taken by the 2015 Newly Qualified Teachers programme.

The regions where the focus groups were conducted are: Campania (1,599 NQTs) Toscana (2,099 NQTs) Emilia Romagna (2,471 NQTs), Friuli Venezia Giulia (538 NQTs).

The focus groups attendance is divided as follows:

- **Focus A - Campania.** 9 Teachers divided into: 4 primary school learning support teachers, 1 pre-primary school learning support teacher, 2 primary school curriculum teachers and 2 secondary school curriculum teachers;
- **Focus B - Toscana.** Teachers divided into 7: 2 pre-primary school learning support teachers, 4 upper secondary school learning support teachers, 1 upper secondary school teacher;
- **Focus C - Emilia Romagna.** 15 Teachers: 2 pre-primary school teachers, 3 primary school teachers, 1 lower secondary school teachers, 3 upper secondary school teachers, 6 primary and lower secondary learning support teachers.
- **Focus D - Friuli Venezia Giulia.** 7 Teachers divided into: 2 Primary school curriculum teachers, 1 lower secondary school teacher, 4 primary and lower secondary school learning support teachers.

Before going into the details of each theme driving the focus, it is possible to make a general analysis of the path as a whole, and especially of the novice teachers' expectations. Particularly, what is new with respect to the traditional report (*"I had no specific expectations on the platform structure, and at the beginning of the school year, my school was given a schedule for us to draw up a report about the probation year; I thought the platform activity would have complemented the report, actually all the platform activities totally replaced the report; I found the structure to be very interesting and challenging, because it required us to make reasoned choices in all of the three sections and also a critical reflection our own path, concerning both training and practice. While during the school year, there were also moments for us to think of how to develop future skills"*) and the correspondence between training path and teachers' desiderata (*"I did expect a professional growth"; "something like that, and I was satisfied, especially for being allowed to reflect and focus on the practice. I did expect that we would have talked about our work experience; I also found the training curriculum very interesting. Everything was as I expected and as I wanted it to be"*).

Aspects that had been valued by the teachers, both in terms of curriculum space, and of teaching activity, with a special reference to planning (questions 2 and 2bis), documentation and reflection, have also been testified by participants in the territorial focus groups.

Particularly, the teachers from **Focus A - Campania**, grasped through the curriculum space, the very core of their professionalisms (*"I liked it right away, I thought: at last something personal! The question about personal experiences asking 'what made you the teacher you are now?' well, that was fantastic!"*) and reflecting on changes (*"Everyone asks you for something, you should always be doing something and producing, instead that question I liked a lot, asks you to think and say: I've become this kind of teacher for a reason! It was nice to reflect on the events that have changed me. This also applies to assessing, everything changes"*). As regards the space associated with teaching activity, the teachers appraised the structure of stimulus-like questions designed for reflection (*"Following the stimulus questions was useful, it helped me to think more easily"*) acknowledging their crucial role also in the peer to peer phase (*"I thought the stimulus questions were more beneficial than the tutor's help was"*). Reflection on teaching activity, as evidenced by the focus group, helped to start a critical path of analysis and reworking (*"I think reflection is helpful because through this exercise I have been able to process the assigned task and when I turned back to revise it, I noticed all things that I had overlooked"*). The documentation activity prompted more fearful teachers, or less accustomed ones to fully understand its value (*"At first, I was scared of facing the documentation task, then we produced the material; unfortunately we hardly ever deal with this type of activity, or when it happens is for special projects"*) within a path aimed at reflecting even after a long time (*"For me it was a reminder, perhaps to be attached to the final assessment"*).

Also **Focus B – Toscana**, supported the Professional Curriculum as a reconstruction of professional history (*"I've read through these new experiences in a way that is transversal to mine"*), and was based on those experiences that provided useful skills for teaching.

What emerged was the importance of working more on the design and creation of questions stimulating reflection on actions (*"This helped me make a reflection on some teaching aspects, I live a particular type of job precariousness, which occurs repeatedly in the same school"*) but a limited attention to the Learning Support Teacher professionalism, already referred to by Focus A, (even if more marginally) was also underlined (*"I expected more from the professionalism standpoint, we are specialized teachers and have extra gears. I've also improved as a curriculum teacher, I'm able to notice when pupils need our help and say", "The teacher helps us with a subject or with state examinations"; "We have extra gears, as I said, but they are just poorly considered"*) who noticed that the fields in the questionnaire were scarcely customized compared to their professional profile (*"Little space, few questions; we were obliged to choose the questions to answer, indeed, they did not concern us, they were*

questions for subject teachers”).

The documentation activity, with special reference to images and videos, aroused some interest. Choosing over what and how to document mostly depended on habits (*“I did it as normal as possible, pictures in classroom and little things produced by the children, that I preferred to print out and attach”*) or were mediated by specific educational fields (*“As for what documentation concerns, I felt a bit disoriented, I only had taken some pictures, not many; carrying out this task as a learning support teacher was difficult to accomplish, but I still think that documenting is important”*).

Focus C – Emilia Romagna, obtained an appraisal as regards its section on the Training Curriculum (*“I completed all of 5 experiences and made sure to reflect on past experiences, not only involving my professional sphere, but any experience I went through in my formative process that affected my professionalism, and which I considered very important and effective to include in my path”*) inspiring a specific value related to *“what made you the teacher you are now”* (*“Personally, it was my favourite part, because it enabled me, while thinking about what I’ve done, or the experiences I have had, to see how those events have guided me towards what I am and I do in the present, so for me it was very useful”*) and giving value to non-formal and informal experiences (*“I also agree with the comments that have already emerged, because I found the structure of non-traditional training curriculum to be very interesting as for the possibility of including different backgrounds, whether working experience or not, and meeting relevant people, and of measuring effects in the long run; perhaps in today’s activity, a way of reflecting on aspects that otherwise I would not have thought of, with such a calm and attention”*).

With regard to planning, documentation and reflection on teaching activities chosen by the individual teacher, their variation resulted to be little responsive to the needs of support teachers (*“In the sense that the whole part of questions and reflection moments, was little centred on teachers that are not very involved in learning support teaching, thus we had to slightly adapt it”*).

The reflection on the activity was much appreciated by the teachers (*“I think this part of the design was clearly structured, and through wizards/procedures I was enabled to make some personal reflections on my path, maybe acquiring more specific skills; precisely I was able to improve my teaching action, that is why I found it a well-structured and clear part”*) because it supported the process of immersion and functional distancing for the critical analysis of the teaching action (*“The reflection time is fine, because it actually gave us the opportunity to reflect; above all, I liked the part where questions such as ‘what*

would you do?’, ‘why were you not able to do?’, were asked. For example, I had answered that I would have liked to do an educational trip with my students, but we were beyond the time limit and had no chance to arrange for it; also, I liked the fact that we had to concentrate on two lessons, on retroactivity, since I realized how in 1-2 hours we can actually organize the lesson in the classroom, and maybe the whole learning path, and after that, we can get lost! I found this very effective from an instructional point of view. Even the evaluation core had the opportunity to see in one hour the way we manage to organize ourselves, something that maybe would be overlooked during the entire path”). Even the learning support teachers, despite the difficulties connected with the choice of activities to focus on for planning and reflection, showed a general appreciation on the objectives that guided the various areas (“I liked it, and felt involved a lot, especially where I was asked to do 1-2 lessons, which is a beautiful thing, circumscribed, also because I was required not to look at the design of my project in general but also specifically at the planning, conduction, organization and evaluation of each individual task during a day or several days. I really liked this. Of course, being a learning support teacher, I also found it difficult to choose. Anyhow, it was an unavoidable choice, since I had to make a reference to the peer to peer activity and observation; so I chose basing on organizational reasons, focusing on a given case and not on other one”).

As regards the documentation phase, the photographic resources obtained teacher’s greatest attention, especially for pre-primary schools (“I agree about using pictures, because they allow me to document the experience of the younger children in a simple way. Thinking vertically, from pre-primary to high school, all forms are useful and above all the pupils’ works”) but in particular cases, such as in learning support teaching, textual materials were highly preferred (“I happened to include in my activity some texts produced by the students. In particular, the material on an individualized activity addressed to a student with a disability, provided additional food for thought”).

The teachers from **Focus D - Friuli Venezia Giulia**, being asked to enter their experiences in the Curriculum space, highlighted the importance of having managed to reflect on moments that have greatly contributed to the development of their profile. It was a kind of memory exploration (“Seeking what I had learned (...) was a meta cognitive path; namely thinking of ‘what I lived, and also of activities that might have nothing to do with school’) and identification of significant moments which had marked their growth (“I have understood how I got to be a teacher; in 2000, I worked as a disability educator in a classroom with 3 disabled pupils out of 12 children. The teachers, who had lovingly planned their work with that classroom, were doing a ‘work

of inclusion' with those children; at that time there was no talk of inclusion, and I soon fell in love with the way they had organized that program. This experience made it possible for me to understand my disposition and decide to study Primary Education Science. Later, I started working as a private teacher and slowly decided to devote myself to this profession; but I did it by chance, I recognize that not all educators become teachers").

With regard to the training activity, the teachers understood and then reported on the relationship between planning and documentation. In particular a learning support teacher (*"I dealt with the creation of a tactile book, starting from the tactile skills of a little girl who had never seen an animal and thought that a hen had four legs. We went to a farm and with the help of a farmer, the child could touch the animals. So I could include in the book all the pictures taken in the farmhouse, showing the little girl while she was touching the animals, and other activities involving materials identified by touch. In the final phase, all the children wrote picture captions and the special little girl did so in braille"*). Moreover, there was a good synergy between the various spaces and the awareness of how the reflection in its process of distancing is able to guide the teacher in improving teaching documentation paths (*"I have utilized some photos of a lesson in which I had initially used a whiteboard, and then PCs. Actually the pictures were uninteresting, because they showed children looking at PC screens. Anyway, being mandatory, I included them, not paying too much attention to how I was using them, in the sense that it would be more meaningful to insert other materials. Then through reflection activities I realized that I could create a data recording card, a kind of analysis, and this was a hint form me to enrich my documentation"*).

Teachers (question 6 of the questionnaire) evaluated the activity on the Balance sheet of Skills very positively. This latter point also emerged from the territorial focuses.

The teachers from **Focus A (Campania)** reaffirmed its importance concerning reflection (*"I think that being compelled to think of what I did in my path, was a point of excellence; the balance of skills is one thing I would develop in the future, it gave me a lot"*) still underlying it should be bound to the teaching action as a continuum (*"It should be done annually and be dependent on the individual case being addressed. It made me think"*).

The **Balance of Future Skills** was also appreciated (*"What I found to be very interesting in it, was being asked about what I would like to deepen, to investigate after that, in the future."*) as well as the stimulus-like questions, that encouraged the teacher to reflect on investments and capitalizations (*"I had not thought that, for example, I could use my creativity, and instead on that*

occasion I could remember my first and very difficult teaching year; creativity and stimulating questions, helped me a lot to remember it and not to forget”; “I managed to reflect on my weaknesses, and on the fact that I would have liked to be better at using the PC; now I’m able to use it but I have realized I would like to improve, also on behalf of the school in which I’ll be teaching in the future, given that the young are greatly fascinated by this type of innovations”).

The teachers from **Focus B – Toscana** - attributed an important value to the Balance in that it helped shed light on the capitalized skills (*“It was very helpful to think of what I had already done and of my whole path”*) even if during a long period of work precariousness (*“It made me realize that my years of job insecurity were very fruitful, allowed me to grow, but I miss a work continuity”*) encouraging professional development and growth.

Focus C - Emilia Romagna, showed an understanding of the Balance’s value and structure in areas and indicators selected by the teacher. In particular, a strong correlation between today’s skills and the ones on which to invest in the future (*“I meant the reflection on current skills, being divided into three areas or scopes such as school activities, school participation, and training, to be able to offer many hints through questions touching a variety of points; so I had no difficulty in identifying priorities and aspects for me to focus on and then articulate my organic and vital reflection. And I liked the preparatory part being identical to the following part concerning future reflection, which allowed us to focus on it and work more on it in the forthcoming years, even from the next school year, to improve and enrich our professional skills”*) also recovering the value of a specific training experience as an element on which the future paths will be built (*“I could do a unitary reflection that touched both teaching and scholastic aspects. For example, I attended some training workshops during the year, and those laboratories represented interesting suggestions for the future, in fact, only taking part in such well organized and structured workshops allowed me to enrich both the aspects, getting involved in them and cooperating to increase school activity and to enhance team training”*).

Finally, from **Focus D - Friuli Venezia Giulia** – the value of the Balance of competence emerged as a positive point (*“The positive aspect is that it makes you reflect on what you did”*) but also, on the one hand, the awareness that self-assessment is a very difficult process (*“Self-evaluation is not easy, then it depends on your level of self-esteem, it is not an objective assessment”*) but above all, even more the need for continuity, to trace a pattern that guides the professional development of the teacher also after the Induction phase (*“Ano-*

ther thing about the skills, is that by reflecting you become aware of what is missing, but then there is no one that provides you with proper training on it”) avoiding that this experience of deep reflection may remain isolated and therefore cannot actually be a guide for tomorrow’s teacher.

As far as the **overall evaluation** of the online path, **Focus B – Toscana**, gave extra weight to “training curriculum” in the process of reflection and analysis (*“It was nice to reflect on the events that have changed me”*). And overall, all the stimulus-like questions that enabled to stop and work on the professional self (*“Thinking out of the ordinary, out from ranking, diplomas and certificates was an interesting experience”*; *“At last, I could not think of the portfolio as such, but could bring my own experiences”*).

In **Focus A – Campania**, confirmed the importance of the online environment for teachers to build their professional-self history (*“I’ve read some experiences in a way that is transversal to my history”*) and emerged, even if timidly, the importance of the social dimension with regard to reflection on the experiences that characterized and defined the training time (*“For example, there was something in the curriculum that I had not understood, then after talking with a colleague, I could look at her experience, which thing was very helpful; so I can admit that a social approach could be useful”*).

Focus C - Emilia Romagna, and **D - Friuli Venezia Giulia**, reported evidences of how the teachers had lived the whole experience (*“A useful, positive and inspiring experience, a good tool to reflect on teaching activities and professional skills, also in terms of self-assessment, and professionalism enhancement”*) and despite some difficulties, mainly related to delays in the environment activation, and also due to a low level of specialization with respect to the learning support teachers (which indicates difficulty in reporting and focusing on micro-activities, especially in the presence of intellectual disabilities) on the whole, the innovative significance of the approach was understood (*“We really enjoyed it, even our tutors when they read it, and the evaluation committees, were all impressed by this training pattern and said it was appealing, and crucial to innovate the newly qualified teachers training”*) as well as the importance given to ‘individual’ teacher (*“Coping with my own path was very positive, especially because, not surprisingly, I could count on the support by educational resources from INDIRE; generally speaking, thinking of myself as a professional and being helped by a guided reflection was a positive experience”*).

The training path, designed through a structured formative portfolio, has resulted to be a helpful tool for the teacher professionalization. It is central

within an analysis process of practice and reflection on action, and eventually, useful in light of accompanying a change in teacher professional practice. In general, this qualitative analysis confirms the data, also reported by questionnaire, that teacher portfolio is perceived and lived in its aim of strengthening teacher's awareness of professional paths, but also as a self-assessment tool for identifying trajectories of personal improvement.

Conclusions and Future Work

In this paper we have shown some findings related to the perceived effectiveness and liking of the training programme implemented in the academic year 2014/2015 for newly hired teachers. The described model and experience have marked the first edition of a national induction model profoundly transformed compared to previous editions. The new model (CM 6768/2015) indeed, unhinges a more instructivist approach, going deeper in results that derive from the educational research, which valorises the alternation between immersion and distancing in/from teaching practice, peer assisted learning relationship, importance of self-assessment of professional skills.

The quantitative and qualitative results gathered from this experience, which involved about 28,000 teachers in 2014/2015, detailed in the work, demonstrate the positive impact of this training model and all arrangements therein adopted. The model added value is certainly to be connected to the experimentation of some innovative tools: *i) the training curriculum* that requires some rethinking and valorisation of one's own significant experiences with respect to professionalization, *ii) planning-documentation-reflection* of the activity that substantiates the principle of alternation and recursion between immersion and distancing from the teaching action, *iii) and balance sheet* of skills helping the teacher determine their professional level in the expertise dimensions required to their role and think in terms of projection and professional development, aimed at either filling any gaps or boosting further areas of excellence.

These tools need to be further deepened and developed as for their configuration and their logical - temporal connections. The formative and organizational model certainly asks for being improved and refined in relation to specific actions to be made on "tutors", representing one of the main strengths of the new model, as regards the responsibilities they assume in placing new generations of teachers in a new professional context, following an ideal passing of the torch.

As a result of the findings observed and documented in this work, the model applied in 2014/2015 has been revised and improved as described in D.M. 850/2015 and C.M. 36167/2015. The second edition of training basing on this revised model is currently underway and involves about 85,000 newly hired

teachers in 2015/2016.

The main revisions introduced include: a) a review of the planning-documentation-reflection process of the teaching activity that in 2014/2015 provided for a single task while in this academic year provides for two tasks; actually, owing to an advance of the training time, the teacher is given two moments for deepening, hopefully spaced by a few months, in order to let them perceive the professional trajectory accomplished in the meantime, through the scaffolds implemented during the training (attended laboratories, mentoring activities with tutor, use of available training resources); b) an increased structuring and empowerment of the role and significance of peer-to-peer activity in which teacher and tutors may be involved in flanking and mentoring activities d) provision of specific learning resources (both for subject areas and transversal) and community tools for sharing and collaboration.

The experience reported in this work took place at the turn of a period of great change in the Italian school, resulting in the introduction of Law 107, which has introduced many reforms. The model, however, anticipates and is a continuation of a fundamental premise acknowledged by the same law providing that training for all teachers - even those on duty - is *mandatory, permanent and structural* (Law 107/2015 paragraph 124).

The model here described proves to be functional to the exploitation of a great diversity of newly qualified teachers and to set a moment of realignment in view of the following professional development in the school context.

The ongoing experience for newly hired teachers therefore represents a mode for reflecting on their competences and for documenting their training experience, necessary and useful in the probationary year, but not only, and places itself in close continuity with the premises laid for the continuing education of teachers through Law 107/2015, encouraging the start of a teacher professionalism development with the aim of succeeding in affecting the teacher skills systematically and deeply.

Acknowledgments

The Italian Newly Qualified Teacher Training program is directed by the technical Secretary and by the School Personnel Training Direction of the Italian Ministry of Education (MIUR). INDIRE and the University of Macerata were involved in the design of the educational path and activities and the design and implementation of the educational contents (INDIRE – School Personnel Training Area and University of Macerata) and for the technical design, implementation, maintenance and user support of the online environment (INDIRE – Technical Area).

Credits

Giuseppina Rita Mangione authored the following sections: «Induction: Models and Perspectives», «Pilot Experience: The Italian Newly Qualified Teachers Path» and «Analysis of Regional Focus Groups and Recurrences Compared with Quantitative Data».

Maria Chiara authored the following sections: «European Views and Key Facts Concerning Induction», «Conclusion», and co-authored «The Online Portfolio: Toward Teacher's Professionalism».

Alessia Rosa authored the sections «Methodologies and Tools» and «Analysis of Data from the Online Questionnaire».

Patrizia Magnoler is the author of «Training Curriculum» and «Balance Sheet of Skills».

Pier Giuseppe Rossi authored «The Online Portfolio: Toward Teacher's Professionalism» and «Teaching Activity».

REFERENCES

- Achinstein, B., & Davis, E. (2014), *The subject of mentoring: towards a knowledge and practice base for content-focused mentoring of new teachers*. *Mentoring & Tutoring Partnership in Learning*, 22(2), 104-126.
- Barrett, H. (2003), *Researching the process and outcomes of electronic portfolio development in a teacher education program*. Society for Information Technology & Teacher Education International Conference. 1, 15-18.
- Bickmore, D.L. & Bickmore, S.T. (2010), *A multifaced approach to teacher induction*. *Teaching and teacher education*, 26, 1006-1014.
- Britton, E. D., Paine, L., & Raizen, S. (2003), *Comprehensive teacher induction : Systems for early career learning*. Springer Science & Business Media.
- Buyse, A., & Vanhulle, S. (2010), *Le portfolio: une médiation contrôlant et structurante des savoirs professionnels*. *Revue suisse des sciences de l'éducation*. 32 (1), 87-104.
- Cerini, G. (ed) (2011), *La strategia del portfolio docente*. Napoli: Tecnodid Editrice.
- Cohen, L., & Morrison, K. Manion, L. (2000), *Research methods in education* London: Routledge.
- Correa, J. M., Martínez-Arbelaiz, A., & Aberasturi-Apraiz, E. (2015), *Post-modern reality shock: Beginning teachers as sojourners in communities of practice*. *Teaching and Teacher Education*, 48, 66-74.
- Danielson, C., & Abrutyn, L. (1997), *An Introduction to Using Portfolios in the Classroom*. Association for Supervision and Curriculum Development, 1250 N. Pitt Street, Alexandria, VA 22314-1453.
- Durand, M., & Filliettaz, L. (2009), *Introduction. Des liens entre travail et formation*

- : *vers une nouvelle épistémologie?*. In M. Durand & L. Filliettaz (Eds.) *Travail et formation des adultes*, Paris: PUF. 1-34.
- European Commission/EACEA/Eurydice (2015), *The Teaching Profession in Europe: Practices, Perceptions, and Policies. Eurydice Report*. Luxembourg: Publications Office of the European Union.
- Feinman-Nemser, S. (2001), *From preparation to practice: Designing a continuum to strengthen sustains practice*. *Teachers College Record*, 10(6), 1013-1055.
- Gold, Y. (1996), *Beginning teacher support: Attrition, mentoring, and induction*. In: J. Sikula, T.J. Buttery, & E. Guyton (Eds.), *Handbook of research on teacher education*, 2nd ed., pp. 548–594.
- Ingersoll, R. M., & Strong, M. (2011), *The impact of induction and mentoring programs for beginning teachers a critical review of the research*. *Review of educational research*, 81(2), 201-233.
- Howe, E.R. (2006), *Exemplary teacher induction: an international review*. *Educational Philosophy and Theory*, 38(3).
- Imhof, M., & Picard, C. (2009), *Views on using portfolio in teacher education*. *Teaching and Teacher Education*, 25(1), 149-154.
- Kane, R. G., & Francis, A. (2013), *Preparing teachers for professional learning: is there a future for teacher education in new teacher induction?*. *Teacher Development*, 17(3), 362-379.
- Kemmis, S., Heikkinen, H. L., Fransson, G., Aspfors, J., & Edwards-Groves, C. (2014), *Mentoring of new teachers as a contested practice: Supervision, support and collaborative self-development*. *Teaching and teacher education*, 43, 154-164.
- Kearney, S. P. (2014), *Understanding beginning teacher induction: A contextualised examination of best practice*. *Cogent Education*, 1(1), 1–15.
- Luft, J. A. (2007), *Minding the gap: Needed research on beginning/newly qualified science teachers*. *Journal of Research in Science Teaching*, 44(4), 532 – 537.
- Magnoler, P. (2011), *Tracce di habitus?* *Education Sciences& Society*, 2(1), 68-82.
- Merhan, F., Ronveaux, C. & Vanhulle, S. (2007), *Alternances en formation*. Bruxelles : De Boeck.
- Mezirow, J. (2003), *Apprendimento e trasformazione. Il significato dell'esperienza e il valore della riflessione nell'apprendimento degli adulti*, Milano: Raffaello Cortina Editore.
- Pastré, P. (2011), *La didactique professionnelle*. *Education Sciences & Society*, 2(1).
- Perrenoud, P. (2001). *La formación de los docentes en el siglo XXI*. *Revista de Tecnología educativa*, 14(3), 503-523.
- Perrenoud, P. (1996), *The teaching profession between proletarianization and professionalization: two models of change*. *Prospects*, 26(3), 509-529.
- Pettenati, M.C., Mangione, G.R, Rosa, A., Magnoler, P. & Rossi, P.G. (2015), *Programma nazionale per la formazione dei docenti neoassunti: alcuni risultati dall'esperienza "Neoassunti 2015*, *Bricks*, 6(4), 2015.
- Robson, C. (2002), *Real world research : a resource for social scientists and practitioner-researchers*. Malden, MA Blackwell.

- Rolheiser, C. & Anderson, S. E. (2004), *Practices in teacher education and cooperative learning at the University of Toronto*. Commissioned by the International Association for the Study of Cooperation in Education, in E. Cohen, C. Brody & M. Sapon-Shevin (Eds.) *Teaching cooperative learning: The challenge for teacher education* (pp. 13-30). Albany: State University of New York Press (SUNY).
- Rossi, P.G., Giannandrea, L., & Magnoler, P. (2011), *Portfolio e riflessione*. *Education Sciences & Society*, 2(2), 192.
- Rossi, P. G., Magnoler, P., Giannandrea, L., Mangione, G. R., Pettenati, M. C., & Rosa, A. (2015), *Il Teacher Portfolio per la formazione dei neo-assunti*, *Pedagogia oggi*, 2015(2), 223-242.
- Schön, D.A. (1983), *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Smith, T. M., & Ingersoll, R. M. (2004), *What are the effects of induction and mentoring on beginning teacher turnover?* *American Educational Research Journal*, 41(3), 681–714.
- Snoeck, M., Eisenschmidt, E., Forsthuber, B., Holdsworth, P., Michaelidou, A., Dahl, J., & Pachler, N. (2010), *Developing coherent and system-wide induction programmes for beginning teachers-a handbook for policy makers*. European Commission Staff Working Document SEC (2010) 538 final. Retrived in http://ec.europa.eu/education/policy/school/doc/handbook0410_en.pdf
- Taranto, G. (2011), *New-teacher induction 2.0*. *Journal of Digital Learning in Teacher Education*, 28(1), 4-15.
- Theureau, J. (2006), *Le cours d'action. Méthode développée*, Toulouse : Octarès.
- Tickle, L. (2000), *Teacher Probation Resurrected: England 1999–2000*, *Journal of Education Policy*, 15:6, pp. 701–713
- Tochon, F., & Munby, H. (1993), *Novice and expert teachers' time epistemology: A wave function from didactics to pedagogy*. *Teaching and teacher education*, 9(2), 205-218.
- Vanhulle, S., Merhan, F, & Ronveaux C. (2007), *Du principe d'alternance aux alternances en formation des enseignants et des adultes*. In F. Merhan, C. Ronveaux, S. Vanhulle (Eds), *Alternances en formation (7-45)*. Bruxelles : De Boeck.
- Vinatier, I. (2009), *Pour une didactique professionnelle de l'enseignement*. Presses universitaires de Rennes.
- Wang, J., Odell, J.S. & Schwillie, S. (2008), *Effects of teacher induction on beginning teachers teaching. A critical review of the literature*. *Journal of Teacher Education*, 56(2), 132-152.
- Wong, H. K., Britton, T., & Ganser, T. (2005), *What the world can teach us about new teacher induction*. *Phi delta kappan*, 86(5), 379-384.
- Wong, H. K. (2005), *New teacher induction*. In (eds) Hal Portner, *Teacher mentoring and induction : The state of the art and beyond (pp.41-58)*. Corwin Press : California.