Beliefs and motivation to teaching in pre-service teachers

A research within the students of the pre-service university degree course for pre-school and primary school teaching in the University of Bologna

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Abstract

This survey is part in the research field that highlights the strong links between the renewal of schools and both pre-service and in-service teacher training. Italian research works show how teachers constantly try to maintain a balance between the reproduction of traditional models and innovation in implementing quality in schools. The international debate on Teacher Change points to two macro-variables that appear to be very important in promoting innovation in teaching practices: the individual path of each teacher and the organizational context of the school.  

This research aims to analyze the motivations for teaching and the beliefs on “good teachers” held by the students attending the pre-service University Degree Programme for Pre-school and Primary School Teaching at the University of Bologna, in order to understand the attitude of the new generation of teachers and obtain useful information for orienting their curriculum.  

In this research work, it has been hypothesized that motivations and beliefs may be correlated to other variables concerning previous personal and training paths.  

The survey is a descriptive research work involving a broad sample of students. A questionnaire was used, containing some previously validated attitude scales and many structured items on personal data and the characteristics of each student’s training experiences. The survey was implemented in continuity with other previous research, making it possible to compare different groups of graduates who are currently working as teachers (novice teachers).  

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1. Theoretical Framework

The field of research on Teacher Change, which explores the processes of change (or resistance to change) implemented by teachers in schools, is particularly wide and complex. From this field emerges the importance of two macro-variables (Richardson, Placier, 2002) which are fundamental in analyzing the stimuli and resistance of teachers towards innovative educational and teaching practices: on one hand, one area of study places the accent on the influence of individual factors, such as the life experiences of individuals in specific socio-cultural contexts as a
child, friend, parent...; on the other hand, another area underlines the importance of organizational factor linked to the school and teaching contexts the teacher works in.

Despite much questioning, today the matter of how to connect these two areas has still not been solved. Richardson and Placier (2002) underline the importance of using both results achieved by the two approaches, as both ways offer a significant contribution to the systematic analysis of a phenomenon which is as complex as the innovation and improvement processes underway in school contexts.

It is particularly interesting to investigate how pre-service and in-service teacher training can influence the potential for change in the teachers themselves, starting with their beliefs and attitudes and then their concrete school practices.

Within this scenario, the analysis of teachers' beliefs is a central aspect: understanding the origin and structure of those beliefs, their stability or malleability, opens interesting hypotheses on the design of curricula for teacher education.

In this regard, we need to consider some important assumptions concerning the structure of teachers' beliefs on school and on teaching. First and foremost, Pajares (1992) reminds us that beliefs are strongly structured during the years at secondary school, and through the experiences of the individual in the processes of cultural transmission, they gradually develop into veritable organized belief systems; moreover, the earlier this structure is built, the more difficult it becomes to modify it. Change, although rare, can be achieved only when subjects find authoritative confirmation in their professional or learning experiences, which is able to challenge their own beliefs and offer new and coherent attitude structures. Reference to practical experience is often a determining factor in changing beliefs, even though this is truer for in-service teachers, for whom theory acquires meaning only when read through the "lens" of their own personal history (Russell, 1988).

When training pre-service teachers, the problem is often even more complex, as not everyone - in contact with concrete teaching-learning situations (for example, the first experience of pre-service placements) – is able to autonomously reconstruct meanings from experience, above all if these meanings are particularly far from the trainee's initial "image" of teachers and teaching.

From here emerges the interest in survey paths and diagnostic evaluation of beliefs in subjects included in pre-service training paths, in order to understand their image of future professionalism and to analyze how the training path itself can potentially affect the change/non-change of such beliefs. In diagnosing beliefs, it is interesting to explore the declarations made by the subjects also concerning their motivations to teaching: the stimulus of questioning why they chose to train as teachers highlights even more effectively their image of teachers and offers important food for thought on the role current students will have in future in schools. In this regard, it should be remembered how some recent surveys have underlined correlations between motivational aspects and students' learning results (cf. Wayne, Youngs, 2003; Barbieri, Sestito, 2007).

Concerning the factors which motivate towards teaching, there are many metaphors in literature which help to build different images of teachers; we find images of the teacher-artist, the clinical diagnostic, the professional, the researcher (Anderson, 1995), depending on whether the focus is placed on vocational and naturalistic aspects or professionalism and competence (Lodini, 1990). Italian university training paths focus on the development of a teaching professionalism based on teaching and disciplinary skills and on the recognition of the social function of teaching with a view to the democratization of knowledge and a guarantee of full rights to active citizenship for all students. Recent Italian surveys (Galliani, Felisatti, 2005; Mantovani, Vannini, 2007; Balduzzi, Vannini, 2009), aiming to evaluate the results of these pre-service training paths, highlight the incidence of training on innovative attitudes of young teachers, but – at the same time – note the continuing resistance based on belief that the teaching profession is, on one hand, a question of vocation and common sense and, on the other hand, an "easy" choice that responds to the private needs of the individual.

2. Purpose of Study and Methods

In the survey presented here, we have analyzed the motivations for teaching and the beliefs on school and the teaching profession in a sample of students attending the university programmes training pre-school and primary school teachers running at the University of Bologna during the academic year 2009/10.
The survey, based on a descriptive research methodology on a broad sample using a structured questionnaire, aims to gather information useful for orienting the learning elements in the university curriculum; it also offered the opportunity to explore the correlations existing between the beliefs of future teachers and the other variables linked to personal (age, background etc.) and training factors of the students.

The survey tool used included:

- Three Likert scales on motivations to teaching, the image of a "good teacher" and beliefs on the purposes of school;
- Some basic variables concerning: personal data, educational background, period in which the motivation to teaching was born, year and title of current university programme.

Continuing on previous research works, the survey also offers useful comparisons with samples of graduates from the same university programmes, who are currently working in the teaching profession.

3. Sample Survey

The survey sample comprises 200 students in the academic year 2009/10 present in the classrooms as attending students in the first semester.

The population enrolled in the degree programme in the same year was 1362 students. There is no certain figure concerning the number of attending students; however, from the declarations made by the graduates from the degree programme in other surveys (source: AlmaLaurea – www.alma laurea.it), it emerges that, generally, just under 50% of the total of enrolled students attend classes regularly. It is therefore possible to state that the survey presented here reached approximately 30% of the students effectively frequenting the programme, distributed over the various years of the programme and various specialities (pre-school and primary school), as shown in Table 1. In the same table it is also possible to compare the distribution by programme year of the sample with the distribution of the population. As can be seen, in the sample of attending students reached by the survey, above all the students of the first three years of the programme are over-represented, while the students not aligned with the exam schedule are strongly under-represented, as can be expected, as they tend not to attend lessons any more.

The 200 students – 93.5% female and with an average age of 23 (mode = 21) – come mostly (almost half of the sample - 44%), from secondary schools in the psychology-sociology-education sector, strongly coherent with the university path they are following; the remainder have diplomas from scientific or linguistic secondary schools (31%), technical colleges (14%), classical studies (9%) and, finally, very few from vocational colleges (2%). This distribution fully mirrors the overall data concerning the population of graduates of this degree programme over the past few years, while the final degree score seems slightly higher than that of recent graduate populations.

Table 1. Distribution of the sample by programme year and degree programme specialization (comparison among the population of the same a.y.

<table>
<thead>
<tr>
<th>Programme year</th>
<th>% Sample (N= 200)</th>
<th>Distribution % population in the same a.y. NO. 2009/10 (N= 1362)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>17.0</td>
<td>11.4</td>
</tr>
<tr>
<td>Year 2</td>
<td>27.5</td>
<td>15.4</td>
</tr>
<tr>
<td>Year 3</td>
<td>24.0</td>
<td>18.3</td>
</tr>
<tr>
<td>Year 4</td>
<td>16.0</td>
<td>17.5</td>
</tr>
<tr>
<td>Non-aligned with exam schedule</td>
<td>10.0</td>
<td>37.4</td>
</tr>
<tr>
<td>Not specified or Erasmus</td>
<td>5.5</td>
<td>.</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area of specialisation</th>
<th>% Sample (N= 112 students in the second two-year course)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-school teacher</td>
<td>35.7</td>
</tr>
<tr>
<td>Primary school teacher</td>
<td>39.3</td>
</tr>
<tr>
<td>Not specified or Erasmus</td>
<td>25.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>
On average, the degree score highlights the good basic education level of the sample: the average score is 83/100 (compared to 80/100 of the graduate populations), the scores 100 and 100 cum laude represent the mode (present in 13.5% of cases) and low scores, of less than 70/100, represent just 11% of the sample.

The students in the sample state that they are very satisfied with the programme (94% would make the same choice again) as (from the analysis of their open answers) it responds to their needs in terms of both cultural and professional training. Those who stated their dissatisfaction underline specifically the organizational criticalities of the training path (too many exams, difficulties in reconciling the various learning activities: lessons, workshops, traineeships). Generally, the students attend all the lessons (82% of cases), although 70% do not live in the place where the degree programme is delivered.

Finally, it is seen that 19% of the sample (38 students) already have a degree, almost always coherent with teaching and, in three quarters of the cases, graduated in the previous 5 years. This group of students is obviously older than the average and does not always attend all the lessons (only 55% state that they do), also because they often have a stable teaching job. In this regard we should underline that each year a very high percentage of graduates (between 50 and 65% of the enrolled population) enroll in the degree programme. Generally, most of these students do not attend lessons; therefore the sub-sample of the 38 students intercepted by the survey offers an important opportunity to analyse the motivational features of a particular group which, although often busy with their working activities, in any case decide to attend the courses.

4. Findings and Results

Here below just some of the survey results are presented, in particular those concerning the motivations expressed by pre-service teachers and the correlations existing between these motivations and some basic variables identified.

The students in the sample declared, in 66.3% of cases, that their motivation for teaching developed before the age of 19; for just over half of them, the motivation developed between 15 and 19 years of age, when their beliefs on teaching were more strongly structured, as international research highlights. In 27.1% of the sample, the motivation developed after 19, and only 13 students (6.5%) state that it was a "last-minute decision", pondered and considered little.

The declared motivations for teaching are given in Table 2, which shows the most important motivations, also compared to those stated by a sample of graduates from the same degree programme in 2006 (Vannini, Mantovani, 2007).

The aim was to observe how the various motivational drives towards the teaching profession were distributed among future teachers, and how far internal or personal motivations are present, or on the other hand, as the university curriculum tends to instigate, more external motivations, linked to the sense of professionalism and the social function of teaching.

<table>
<thead>
<tr>
<th></th>
<th>2009 sample</th>
<th>2006 sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% pre-service</td>
<td>% in-service</td>
</tr>
<tr>
<td>I have an interest/passion for teaching</td>
<td>99.0</td>
<td>95.8</td>
</tr>
<tr>
<td>I would like to work with children</td>
<td>98.0</td>
<td>96.2</td>
</tr>
<tr>
<td>I believe in the social value of teaching</td>
<td>90.9</td>
<td>89.7</td>
</tr>
<tr>
<td>I would like to improve the quality of teaching in schools</td>
<td>86.4</td>
<td>64.2</td>
</tr>
<tr>
<td>I feel that the teaching function is essential for building a more democratic society</td>
<td>83.4</td>
<td>-</td>
</tr>
<tr>
<td>I have a vocation for teaching</td>
<td>81.3</td>
<td>69.8</td>
</tr>
<tr>
<td>Teaching is a job which allows me to express my autonomy and creativity</td>
<td>79.5</td>
<td>91.6</td>
</tr>
</tbody>
</table>
I am interested in a dynamic job that is open to innovation 74.0 -.
My previous educational experiences have awakened my interest in teaching 64.0 61.0
Teaching gives me free time for my private life, family and children 57.6 67.0
Teaching gives me free time to cultivate other interests 41.2 -.
Teaching is a guaranteed job with a fairly good salary 40.3 44.8
Teaching is a work activity which is coherent with the type of senior school I attended 26.5 39.6
I don't want a job that is too demanding 4.5 -.
Teaching runs in the family 2.5 9.9

From the answers given by the students in the 2009 sample (see Table 2) it emerges that the motivations for teaching that everyone (more than 95%) considers fundamental concern fairly generic attitudes: “I would like to work with children” and “I have an interest/passion for teaching”. Very high values are also found however in three other items which, together, underline a very precise motivational representation: these are motivations linked to the social value of teaching (91%), the wish to improve the quality of schools (86%) and the importance of the teaching function for the democratization of society (83%). On one hand, it is particularly interesting to note the correspondence of the percentages of agreement of pre-service and in-service teachers on teaching as a social function and, on the other hand, the difference between the two groups concerning the wish to improve the quality of schools: 86% of importance by pre-service students in the 2009 sample and only 64% of importance by in-service graduates in the 2006 sample. This practically underlines a certain disillusioned attitude of those who, by now, have met with the difficulty in schools of acting towards change and innovation.

The pre-service sample also demonstrates an attitude which links the choice of teaching once more to "vocation" (important for a considerable 81% of the sample), far more than was expressed a few years earlier by the in-service graduates (70%).

Among the students in the 2009 sample, very high percentages of agreement are found also for motivations such as the wish to express autonomy and creativity (approx. 80%, less unanimous agreements however than the 92% expressed by in-service graduates in 2006) and interest in a dynamic job open to innovation (74% importance).

Lower percentages, in any case of some importance, were found for more contingent motivations, such as the need for a job which offers stability and economic security (40%), and a certain amount of free time to dedicate to one's own private life (58%); this motivation unfortunately corresponds to a social image of the teaching profession linked purely to an "any old job" logic, where long, busy work hours are not always accepted by those who have to manage not only classroom teaching but also and above all the qualifying aspects of the profession, including planning and assessment, in a logic of personal and collective responsibility which many Italian teachers still ignore. It should however be noted in the 2009 pre-service sample that fewer agreements were recorded for this motivation compared to the sample of 2006 in-service graduates, above all due to motivations linked to the need for free time for private reasons, which recorded 67%. To confirm this, in the 2009 sample there is only 5% of agreement with the motivation for a job that is not "too demanding".

To reflect on the correlations existing between the different motivations of the sample of 2009 students and verify the existence or not of underlying dimensions which can explain them in a more synthetic manner, a factorial analysis of the different items of the questionnaire was conducted.

Table 3. Motivations for teaching. Matrix obtained by factorial analysis. (Saturation coefficients) – Survey sample of 2009 pre-service students.*

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching gives me free time to cultivate other interests</td>
<td>0.813</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching gives me free time for my private life, family and children</td>
<td>0.807</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching is a guaranteed job with a fairly good salary</td>
<td>0.706</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I don't want a job that is too demanding 0.630
Teaching is a job which allows me to express my autonomy and creativity 0.599
I feel that the teaching function is essential for building a more democratic society 0.826
I believe in the social value of teaching 0.787
I would like to improve the quality of teaching in schools 0.726
I have an interest/passion for teaching 0.777
I have a vocation for teaching 0.695
I am interested in a dynamic job that is open to innovation 0.496
Teaching is a work activity which is coherent with the type of senior school I attended 0.735
My previous educational experiences have awakened my interest in teaching 0.670

*(Two non-significant items were eliminated from the factorial solution)*

The identified factorial solution, which explains more than 60% of the overall variance, includes four factors, the saturation coefficients of which (extracted through the analysis of the main components with Varimax rotation and Kaiser normalization) are shown in Table 3.

As can be seen in the Table, the four identified factors refer to easily recognizable motivational aspects, which can be summarized as follows:

- Factor 1 – personal and private needs;
- Factor 2 – recognition of the social function of teaching;
- Factor 3 – vocation and enthusiasm;
- Factor 4 – choice coherent with previous experiences.

Statistical analyses of variance and linear regression were conducted on the four factors in order to identify the basic variables correlated to them.

In particular, important, statistically significant correlations were highlighted for factors 4 and 2.

As far as Factor 4 is concerned (choice coherent with previous experiences), this is more present among the females (significance 0.005), who stated an early development of the motivation to teaching, before 19 years of age (significance 0.004) and, less important, with higher scores in the senior school diplomas (significance 0.01).

As far as Factor 2 is concerned (recognition of the social function of teaching) – a motivation which the university learning path aims to promote in students – this highlighted a wider range of interesting correlations. The social motivation for teaching is more present in older students (significance 0.0001), who attend the fourth year or who are not aligned with the exam schedule (significance 0.001), for whom teaching is a mature choice, made later than 19 years old (significance 0.002) and who possess a second degree (significance 0.005).

5. Conclusions

The first results analyzed offer the chance to explore the different "physiognomies" of the motivational structures guiding the sample of students in the degree programme for pre-school and primary school teaching at the University of Bologna.

An initial investigation of these motivational structures has also highlights the utility of some basic variables in understanding the possible factors which affect the motivations of pre-service teachers; in particular, as far as the motivation connected to the wish to follow a profession with an important social function is concerned, the data allows us to offer a hypothesis (subject to verification) that, in addition to the factors concerning the personal maturing of individuals, the university curriculum may have a positive influence, which is shown in the students from the fourth year of the programme onwards.
Thereafter, the analysis of the attitudes of future teachers to school and the image of teachers may further contribute to highlighting a more global and coherent framework of beliefs on teaching and the possibility to act towards innovation in schools.

This analysis, which is currently in progress, may be useful in reflecting on the choices of training elements included in the curriculum for pre-service teacher training in Italy.

References


