Reflection of pre-service teachers in a tabletop exercise of lesson study during their practicum

Rekalidou Galiní, Karadimitriou Kostas

Abstract

The purpose of this study is to examine the reflective capacity and the ability of fourth grade students of a Department of Preschool Education to plan educational programs with the Lesson Study model. The sample consisted of 72 students who performed a tabletop exercise in groups in order to plan a Project or a Cross Thematic program. At the end of the process students wrote a “reflection” report about the overall procedure. The analysis of those reports led to interesting results about their reflective skills and abilities as well as their difficulties to design collaboratively.

Keywords: pre-service teacher education; lesson study; collaboration; reflection; feedback; practicum

1. Introduction

Dewey 1933 (p.9) indicates that reflection is “the active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends”. The term “reflective practice” was first formulated by Schon (1983), who reports that the capacity of educators to mull over the educational practice, so as to participate in a process of lifelong learning, is one of the key elements of their professional development (Atherton, 2011). Reflection is described as the skill with which the teacher is able to examine carefully and persistently “what” and “how” teaches, “what” and “how” it is better for his students to work with. Although the importance of reflection in all levels of education constitutes an acknowledgment (Chetcuti, 2007) the discussion about its applications is constantly broadened (Denton, 2011) while the enhancing of learners to apply it is often difficult (Gustafson & Bennett 1999, Augitidou & Hatzoglou, 2013). Lesson Study (LS) model has
its roots in Japan and has international recognition in all the advanced educational systems. Research has proven that it is a very important model for the professional development of teachers and pre-service teachers (Vaughan, 2012. Zeichner & Liston, 2013. Myers, 2012). It has been found that this model through the procedures of collaborative planning, observation, feedback and redesign gives to pre-service teachers the opportunity to reflect and while reflecting to link theory and practice (Myers, 2013). However, there is questioning whether the LS really promotes reflective abilities or this is achieved only on the surface (Myers, 2013). Finally, the research regarding the training of pre-service teachers with the LS model and the development of reflection abilities is still limited (Dubin, 2010). In Greece the Lesson Study model was first implemented to the Department of Education Sciences in Early Childhood of the Democritus University of Thrace and is still implemented until today.

2. The purpose

This work is the first phase of an overall survey that examines the capacity of students of the Department of Education Sciences in Early Childhood of the Democritus University of Thrace to reflect. It was conducted during the academic year 2013-2014. In this phase we study the capacity of the students, after one semester of theoretical education (winter semester 2013-14) to reflect upon the collaborative planning processes of a program in the context of their Practicum with the application of the model (LS). The next phase, which is now underway, will concern the examination of the development of their reflection capacity during the spring semester (compared to winter) after the implementation of the program that students have designed in the first phase.

3. The sample and the framework

The sample was consisted of 72 4th grade students / pre-service teachers of preschool education. Those students have attended relevant seminars and courses during the last year and implemented their Practicum at the base of the Lesson Study model with main focus to cooperate within the team. During the fourth year, they attended additional theoretical courses and seminars for their Practicum based on the same model with emphasis in reflection and the development of their reflective capacity. The examples of reflection that were presented during their lessons were based on the model of Moon (1999): a) Making sense, b) Making meaning, c) Working with meaning, d) Transformative learning.

The description of the general human made, social, historical, educational and political context and the aspects that governing it is essential in order to analyze and interpret texts in the light of reflective thinking - capacity. For this reason the following are pointed out: The participating students were asked at the beginning of the semester to create voluntary five-member groups (six-member in two cases) for the implementation of LS in their Practicum. Although the groups had been set up by themselves, there were differences among the members in familiarity and this obviously creates restrictions regarding the feeling of security and the relationships of trust within the team. All procedures were performed in the University campus and in the presence of all the groups simultaneously (plenary). At last, students’ experiences and the “baggage” they carry have a traditional content. They have been educated in a profoundly competitive educational system that does not emphasize to the development of critical thinking. They have also been admitted to the university through a very strict examination system, which is based mainly in memorization.

4. Data collection

After theoretical courses and workshops, each group performed a tabletop exercise and cooperated in order to plan a Project or a cross thematic program. Based on the L.S. model, the phases of cooperation were defined as following: a) identification of goals and objectives, b) design of the program content, c) a presentation of the program in plenary (to all the other groups) and d) comments and feedback discussion in the plenary after each presentation in order to redesign. After the end of the four phases, students were asked to write their first reflection report over all the above phases. Students were given instructions and the following general outlines: Procedures during the Design, Operation of the group, Collaboration, Presentation / feedback and Projections in the future. Also,
participants received written assurances that the report is not to assess them. Finally 72 reflection reports were collected.

5. The method

At first we have extensively studied the reports of the students. Then, a qualitative content analysis of them has been done (QCA). After grouping and encoding reports / units in the texts, followed the quantitative analysis of the groups in the four levels of written reflection proposed by Hatton and Smith, (1995): a) Descriptive Text: Simple quotation of facts and procedures, without any attempt to justify, b) Descriptive Reflection: A step beyond simply quotation. Responds are mainly descriptive and answer to “how” but not to “why”, c) Dialectical Reflection: Denotes discussion, consideration of other views, exploring other explanations and perspectives, d) Critical Reflection: Implications, extrapolations, consequences, judgments through a historical and socio-political context. The categorization of the reflective references to those levels was made on the basis of Moons’ criteria (1999). Afterwards, we conducted a Critical Discourse Analysis (CDA) since the combination of the two methods (QCA-CDA) contributes to a more thorough and in-depth analysis of written texts (Fairclough, 1995. Wilbraham, 1995. Schiffrin, Tannen & Hamilton, 2008).

6. Results

On the total, emerged 287 reports/units with reflective features. Those reports/units were grouped and coded (table 1). The first and the second group include the reflective students’ reports regarding the contribution of the knowledge they had conquered and their gaps.

<table>
<thead>
<tr>
<th></th>
<th>(f)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designing: Contribution of knowledge / skills in planning</td>
<td>58</td>
<td>20%</td>
</tr>
<tr>
<td>Designing: Difficulties from gaps in knowledge and skills</td>
<td>51</td>
<td>18%</td>
</tr>
<tr>
<td>The student as a member of the LS group during the operation of the team</td>
<td>42</td>
<td>15%</td>
</tr>
<tr>
<td>Difficulties encountered in the operation / team collaboration</td>
<td>33</td>
<td>11.5%</td>
</tr>
<tr>
<td>Presentation of work in plenary - Remarks: recording of emotions</td>
<td>29</td>
<td>10%</td>
</tr>
<tr>
<td>Projection to the future: Expectations and concerns that arise from the experience</td>
<td>33</td>
<td>11.5%</td>
</tr>
<tr>
<td>Self confidence to continue</td>
<td>41</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>287</strong></td>
<td><strong>100%</strong></td>
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Groups 3 and 4 include reflective records associated with students’ themselves in the group, their presence in relation to the presence of the “other” members, the stakes of cooperation and the achievement of the goal that the team had to achieve. There are also included the positive elements during team work, weaknesses and problems that emerged and the way in which those problems and weaknesses affected the functioning of the group and at last, if they were exploited. The fifth group refers to reflection with respect to the presentation of the design of each group, the comments which have been made, the feedback outcome and the feelings of students during all these processes. Finally, groups 6 and 7 include reports associated with both expectations and reservations of students about the application of the model as drafted by the participation throughout the above phases (group 6) and secondly involve a determination of the students about their future dynamics, in the basis of all those they have conquered or not have conquered and regarding those that they reflectively reported that define their readiness to reflect and implement the LS model at the next level of their training and in their future career as teachers (group 7).

The high rates of reflection reports (group 1 and 2) of students on the conquered and the non conquered theoretical knowledge, (which they needed to implement in practice) were expected, since it is the pre-eminent “visible” issue for discussion within the LS group and therefore more accessible. The category “The student as a
member of the LS group during the operation of the team” (group 3) has also a high frequency of reports and this is positive in the sense that students felt that they belong in a team and this is incorporated in their reports, even at a higher rate than they recorded the characteristics of collaboration between them in category “Difficulties encountered in the operation / team collaboration” (group 4). Students on their reflection reports regarding the presentation of their planning to all the other groups and the process of feedback have focused mainly in experiencing emotions and less on the progress and the outcome of this phase (group 5). In lower percentage appear reflection reports in group 6, but we have the highest percentage of all groups, in group 7 regarding the way they view their readiness in the near and distant future as candidate teachers as well as teachers in action in relation to the specific training they have received. In this group, students made very positive, although succinct, reports. Perhaps it is interesting to mention that almost all students stated that they feel prepared to continue to learn “how” to reflect and on “what”, and consider that the LS model will help them in this direction both short term, during their Practicum, and long term in their professional development.

As shown in table 2 descriptive reports have the highest rates. The percentages of descriptive reflection are probably indicative of an attempt of the students to work reflectively, but it was not easy for them to make further steps. Thus, we observe a decreasing trend in rates (from left to right). Next to the column with the percentage of the descriptive reflection we have a limited number of records in the column of the dialectical reflection and no records to the critical reflection. In conjunction with the QCA we conducted CDA focusing on the categorization of the reflective discourse of the students in order to deepen in the interpretation of the content.

In the descriptive reports of students dominate references which concern their knowledge and follow those which concern procedures, situations or views. In groups 1 and 2 they describe nominally the knowledge they have conquered and helped them in planning and the knowledge they had not conquered. But they did not explain “how” this knowledge contributed or “how” they discovered their gaps and “why” they evaluated them as gaps: “I knew how to identify learning objectives, and I knew from the courses the differences between Cross Thematic approach and Project and this helped me to cooperate... [...]” (subject nr. 11).

Students appear to be not “weaned” from the logic of performance and that is also seen in other references. “I was very anxious before the presentation about the mistakes we had made [...]” (subject nr.60). Also in their descriptive reports, their surface approach often complemented with vague references “I expect to implement as much as possible most comprehensive the model LS in our Practicum according to what we have learned [...]” (subject nr.
In these indicative reports we can see the students’ view on “how” learned something rather than “what”. They do not also indicate if this helped them turning their knowledge into practice and then “look at” it distanced. The absence of the latter, probably results from an established approach of our educational system that focuses on the simple transfer of knowledge as one single truth. Nevertheless the students managed to perform a basic level of reflection in good rates and they were able to “turn back” and analyze key points of the processes in the group from a distance. For example, they were referred to processes for “how” they led to conclusions and decisions through consensuses and conflict. “While we choose our team ourselves, when the time came for the cooperative planning we could not proceed. At first emerged some disagreements for choosing the topic while another member and I did not participate in the discussion. I wanted, but I was very cautious to express a contrary view to others. The behavior of a member who “pretended” the leader also bothered me… [...] After some tension we decided that everyone who suggests an idea should also find and say one negative aspect for his proposal. This helped us to “unblock” and continue [...]” (subject nr. 58)

Although limited in number, the reports of students that passed the level of dialectical reflection included interesting insights and perspectives: “[…] this point was of course very important and I could not tell if it was a matter of personal beliefs or something else. I recalled the contribution of each of us regarding ideas and knowledge. I remember a similar experience that I had […] I am thinking now that maybe I am not quite cooperative […] I had to be less competitive and leading in the group … […]” (subject nr. 42).

Finally, students seemed to have great difficulty to reflect critically. Some tried to reach that level but they used similar references to those that had already been used during the courses and therefore we cannot suggest that these are their personal reductions in a range of critical reflection.

7. Conclusions - Discussion

The results show that the reflective reports of the students slightly exceeded the descriptive level. Students tended to approach or deepen easier to issues having to do with the design of their program, the difficulties they encountered and the cooperation within the group. This may be explained to some extent by the interest of the students for their own designed program in this first phase of implementation, the theoretical courses that they have attended and the outcomes of the Practicum from the third year of their studies. In dialectical reflection, where it was required of them to interpret conditions and situations that they were present themselves or to adopt an alternative perspective, students had difficulties. This result is consistent with results of other studies according to which students / pre-service teachers remain at low levels of reflection. This is attributable to the fact that they do not have experience, their skills in reflective thinking are limited and especially that they do not have good knowledge of the content (Orland-Barak, 2005. Myers, 2012). This interpretation seems to be proven also for our students who wrote their first reflective report during this tabletop exercise. Furthermore, reflection is not a simple process of following a list of behaviours and “steps” but is a “complex, rigorous, intellectual and emotional effort that takes time to do it well” (Rodgers, 2002, p. 844). Researchers report the mediation of various factors that influence the formation of reflective thinking, for example, the motives of the students to attempt an in-depth, reflection report. The assessment or not of the students’ report is a strong motive. Also, the mood and the emotional safety regarding the recipient who is going to study the report are factors that affect the quality of students’ reflection (Hatton and Smith, 1995. Galvez, Martin & Bowman, 1998. Orland-Barak, 2005. Dubin, 2010). Although many researchers such as Burroughs & Luebeck, (2010) and Chassels & Melville (2009) recommend the LS model for the development of reflective thinking (we also support this view), there are concerns about the degree to which this is true. Firstly, it is necessary to point out that the weakness in the written reflection does not necessarily mean failure of reflective thinking. Reflection develops as an internal discussion and that makes the determination of the degree to which students deepen in reflective thinking very difficult (Moon , 1999. Kember, 2000. Hatton and Smith, 1995).

We argue that the results of the second phase of this research will give us a clearer picture and will help us associate them to a greater extent with the international literature. However, we suggest that a combination of the above factors affects the configuration of reflective thinking of students. On the other hand the deficit of cultivation of students on critical thinking from the first grades of their education plays a major role. In summary, the results of
this study are a reference point in order to observe the development of reflection capacity of the students and to improve the context in which we ask students to express reflective thinking.

References


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