Communicational Behavior among Student-teachers in a Working Team

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Abstract This research investigates the future teachers’ views regarding the communication that they developed while working in a team that aimed at implementing a certain project. More specifically, views are being recorded on a) the frequency of meetings of team members during the implementation of the project they undertook, b) the framework of oral communication and the manner in which it was concluded c) the emotions that they experienced during their meetings and d) their behavior during the meetings and the discussions with their fellow-students. The tool for this research was the anonymous written questionnaire, which was completed by future teachers of the Department of Primary Education of Democritus University of Thrace after the completion of a team project in ten scheduled weekly meetings. The results demonstrate that the students - during the implementation of the project that they undertook - would meet with the other team members on a regular basis. During those meetings, they would behave responsibly, would act encouragingly towards team members and would seek to promote cooperation. They would discuss based on a very specific and clear set of targets, focused on predetermined subject matter, while their discussions would often be concluded in a friendly atmosphere or at least in consent.

Keywords: project, teacher education, communication, group, interpersonal relationships


1. Introduction

A student’s success in conquering an educational achievement depends on the time he/she has dedicated to it [1]. However, how much actual time within a teaching hour is dedicated to essential academic work (by students) in class and what are the gains - knowledge, qualifications, skills etc - for their future job career or for their lives in general? The twenty-first century citizen needs information and communication skills, thinking and reflective skills, as well as personal and professional skills [2]. Consequently, schools should offer students more than academic knowledge; they should also cultivate skills such as cooperation, communication, problem-solving etc. To achieve this, however, teachers must focus on more student-centered approaches [3].

A student-centered teaching approach is the project method, which “aims at providing students with independent and team learning skills” [4] through involvement in complex duties over relatively long, yet clearly defined, periods of time. The students begin by posing the initial query or target and continue by working methodically in order to research, to create a final product 1 [5] and finally evaluate both the end-product and the process itself [6].

What characterizes the students’ work when implementing the project method is their cooperation 2 in small teams towards a collective result in the first place, and the knowledge that is built through social interaction in the second place [4]. In the framework of working in a team, the students bring their ideas and suggestions, listen carefully to each other, collect but also exchange information that will contribute to the final product, undertake various roles and social mental behaviours in accordance with the active approach to learning [10]. Learning is, therefore, based both on the research that usually concerns real life and the surrounding world [8] and on the high levels of student participation [11]. Students acquire ICT skills as well as problem-solving skills [12], which are crucial for their success in the twenty-first century 4.

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1 The project’s end-product is the participants’ motivation [7]. It could also protect them from the uncertainty and the unpredictable that may lead them to disappointment [8].

2 During the whole procedure teachers contribute to students’ project by facilitating their efforts [9].

3 Even though the implementation of a project requires cooperation among team members and its positive effects on student learning depends on both the nature of the team composition and the quality of the team procedures [3], it has been observed that in certain cases of collaborative learning model applications, the behaviors within the teams could not be described as “collaboration” [14].

4 Twenty-first century skills comprise information and communication skills, thinking and reflective skills, as well as personal and occupational skills [2].
However, in order for teachers to be able to implement and control this teaching approach (project), it is essential that they are trained [13] or educated on it.

Hixson, Ravitz and Whisman [2] conducted a survey between teachers who used PBL (Project Based Learning) and teachers who did not use PBL or who had used it but they had not the same background as the others regarding professional development and participation in the BIE (Buck Institute for Education) training. Findings showed that the extensively trained PBL-using teachers taught 21st century skills more often and more extensively.

Research that studied the effects of the implementation of the project method on future teachers clearly shows that the participants feel themselves progressing and realize the benefits of this pedagogical approach [15], appreciate the knowledge gained, develop their critical thinking, cultivate cooperation among them and good interpersonal relations, which results in their remembering their participation in it to have been a pleasant one [16].

Specifically, in a research at the Department of Educational Sciences of the University of Cyprus, Mettas and Constantinou [7] examined pre-service teachers’ understandings and strategies in their effort to complete and present together with primary school children a technology fair project. They concluded that project based learning is effective in increasing pre-service teachers motivation and in improving their problem-solving skills.

A study by Frank and Barzili [8] based, mainly, on qualitative data analysis found that pre-service teachers who carried out a project in a project-based learning environment acquired pedagogical and content knowledge, enhanced understanding and decision-making ability, communication skills and self-esteem.

For Mohedo and Bájez [17] project based teaching is an educational experience that will change future teachers training.

Koivuniemi, Järvenoja and Järvelä [18] conducted a research after a seven-week didactic math course. Forty-three second year teacher education students who worked in small groups were asked about their collaboration. The semi-structured interviews were audio recorded and transcribed. The results showed that the most commonly described challenges were of cognitive and motivational nature. The emotional challenges were less frequently reported, indicating “the students’ inability to identify and hurdle the motivational and emotional challenges that they were facing”.

Tsybulsky and Muchnik-Rozanov [15] attempted to study the development of student-teachers’ professional identity during their third year of the science teacher-education program and their experience with the project based learning method. Data were collected from in-depth interviews and reflective reports. Findings indicate that the student-teachers while leading project based learning experienced overcoming challenges and involvement in supportive cooperation with their peers and gained confidence as professionals.

Dobber, Akkerman, Verloop, and Vermunt [19] investigated two research groups in teacher education during their collaboration within their research project. They found that student-teachers working as a team had to depend on each other not only for the accomplishment of the team goals but for their personal gain as well. They also found that when the working team is inactive of long periods, especially at the beginning of the project, it cannot focus on a direct form of discussion consequently group members do not complete their individual tasks.

Peterson and Behfar [20] investigated the relationships between intragroup conflict and performance. They found that initial performance feedback to groups can affect future team interaction and that intragroup trust can prevent future relationship conflict.

A meta-analysis of research on the associations between conflicts (relationship and task conflicts), team performance, and team member satisfaction conducted by DeDreu and Weingart [21] showed that there is a strong negative correlation between task conflict, team performance, and team member satisfaction.

Aiming at educating future teachers on the project method the Department of Primary Education of Democritus University of Thrace has included in its curriculum since the academic year 2001-2002 the subject Teaching Methodology II. The subject was established in the Department by professor Eleni Taratori and was accompanied by several theoretical and research publications either by herself alone or together with associates [22,23,24,25,26,27,28].

The future teachers of the Department, after receiving theoretical background on the project method, the prerequisites, the stages and the steps for its implementation as well as the advantages and disadvantages that result from its implementation, undertake to implement a project focused on their interests. They work in teams, collect information, share it with the other team members, discuss on the ideas put to the table using supporting or criticizing arguments [29] and prepare the end-products of their work as well as its final presentation.

The long-term implementation of the project method in the aforementioned Department and our involvement with it, has aroused our interest in further involving ourselves with the above-mentioned method and more specifically to attempt to outline the context of oral communication that future teachers develop, the emotions that they experience during team meetings as well as the behavior of students during meetings and discussions with their fellow-students.

2. Methodology

A starting point to conduct this experiential research regarding the investigation of the views of students on the communication that develops among members of a team during project implementation, have been both the fact that Greek bibliography is lacking in papers researching this topic and our own personal interest in this field.

Its main aim is to investigate the views of students of the 5th and 7th semesters of the Department of Primary Education of Democritus University of Thrace on a) the frequency of meetings among students during the

5 In “Teaching Methodology I - microteaching”, that precedes chronologically in the Department Curriculum, the students have been practicing since 1993 - the year when professor Eleni Taratori applied microteaching for the first time in the Department - specific social, pedagogical and teaching skills.
implementation of the project that they undertook, b) the context of oral communication among team members during their meetings, c) the way of conclusion of the communicational procedure for the project implementation, d) the emotions that team members experienced during their meetings and e) the attitude and behavior of the students during meetings and discussions that they conducted with their fellow students in the context of project implementation.

To achieve the research goal, the written questionnaire was used as a research tool. The questionnaire comprises 42 closed-ended questions\(^6\).

As previously mentioned, 265 student-teachers (both male and female) of 5\(^{th}\) and 7\(^{th}\) semesters (5\(^{th}\) semester: 48.3\%, 7\(^{th}\) semester: 47.5\%, “out-of-circle”: 3.8\%) of the Department of Primary Education of Democritus University of Thrace, who had received training on the implementation of the project method during the course “Teaching Methodology II”, were our research sample. Their age varied from 20 to 21 years old, however 68 students (25.8\%) were over 21 years old. Some of them already held one more academic degree. Specifically, seven (7) students were BA graduates of another University and five (5) students held a Master’s Degree.

Data collection took place on January 2019 and lasted three weeks.

3. Results

The findings of the research that emerged from the fields mentioned in the future teachers’ views regarding the context of oral communication that develops among them during project implementation, as to how each student judges both his/her attitude and behavior during oral communication with other team members and the behavior of other members, as well as the emotions that team members experienced during their meetings, can be summarized as follows:

a) Regarding the frequency of appearance of certain communicational types during oral communication of team members in the context of meetings for project implementation, the research subjects reported that the most frequent appearance was that of the “persistent” (Mean=2.664). Next came in frequency the “silly” (Mean=2.273) but also the “reactive” (Mean=2.19), the “smart-guy” (Mean=2.051) but also the “shy” (Mean=1.929). They also discerned the “flatterer” (Mean=1.798), the “indiscreet” (Mean=1.715) and the “show-off” (Mean=1.715), and more seldom did they report that there was also a “turncoat” among them, that is to say the betrayer (Mean=1.391).

b) With regard to the oral communication among team members in the context of the meetings for the implementation of the project that they undertook, the students claim that there was often a very specific frame of targets in their in-between communication (often + quite often).

In more detail, the students claim that during their meetings there was a clear frame of targets (Mean=3.656) although sometimes they diverted into various, secondary project-related issues (Mean=3.478). However, their discussions were based on a predetermined set of topics (Mean=3.431). Seldom, their discussions diverted into various, irrelevant-to-project issues (Mean=2.771).

c) With regard to the way of conclusion of the communicational procedure that took place during the meetings of students to implement the project, future teachers claimed that their oral communication was more often concluded in friendly terms (Mean=4.194) or at least in consent (Mean=3.65). Much more seldom did they report their communication concluding in negative terms (Mean=1.73) or being violently disrupted (Mean=1.452).

As regards the moment of parting of the team, the students claimed that there was politeness (Mean=4.192), calmness (Mean=4.13) or a smile (Mean=4.123), whereas much more seldom did they exchange a handshake during their farewells (Mean=2.544).

d) Regarding the emotions that the team members experienced during their meetings to implement the project that they undertook, the research subjects claimed primarily that they felt benefited (Mean=3.419) from the meeting and secondarily that they developed expectations for future similar procedures (Mean=3.173).

From the means to questions “Was the discussion based on a predetermined set of topics?” and “Was there a clear set of targets in the discussion?”, a new variable emerged, which was named “discussion agenda”. From the means of answers to questions “Did you feel to have benefited after the oral communication?” and “Did you develop expectations for similar procedures in the future, after the oral communication?”, a new variable emerged which was named “assessment” and investigated the assessment of each member after team discussions were completed.

The results of the correlation between the variables “discussion agenda” and “assessment” show that there is a medium positive statistically significant correlation (r = 0.382 p < 0.001). This clearly displays that the better the planning of the discussion in specified contexts, the more positive the assessment of the discussions after their completion.

e) With regard to attitude and behavior of students during the meetings and discussions with their fellow students in the framework of project implementation, what emerged is as follows:

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Regarding how each student judges his/her attitude and behavior during oral communication with other team members in the framework of meetings for project implementation, the students that participated in the research declared that they consider themselves to have behaved “responsibly” (Mean=4.0). Also, they consider being particularly “sociable” (Mean=3.845), “expressive” (Mean=3.461) and “meticulous” (Mean=3.163), leaving outside behaviors such as “assertiveness” (Mean=2.345), “passivity” (Mean=1.775) or “aggression” (Mean=1.422).

Focusing on each student’s contribution - through the actions that he/she took during oral communication with other team members - to the project implementation, the
research subjects declared first and foremost that they acted encouragingly, prompting other members to express ideas and opinions (Mean=3.638). Moreover, they would quite often provide team members with important information for the execution of their work (Mean=3.479), they would urge team members to take action (Mean=3.339) and would undertake to inform all team members on the project aims and procedures (Mean=3.28).

From their replies, it is also inferred that the team members displayed self-confidence as they were very rarely influenced by the opinions of others (Mean=2.58), but also respect for the opinion of the other, as they seldom gave orders and demanded that they be executed (Mean=1.883) or show contempt, indifference or unwillingness to participate (Mean=1.685).

During oral communication within their team, the subjects of our research claimed that they sought first and foremost to promote cooperation (Mean=3.342) and secondly team public relations (Mean=2.935). More seldom they intended to influence the views, the choices and the priorities of members in and out of the team (Mean=2.639) or to evaluate every message and inform team members in order for the message to be accepted or rejected by the team (Mean=2.532).

4. Conclusion - Discussion

In conclusion, the students - in the context of the implementation of the project that they had undertaken - usually met as a team once a week. These meetings were organized with precision and based on a clear frame of targets while the oral communication among them had a predetermined set of topics and would be completed in a friendly atmosphere, or at least in mutual consent 7. This resulted in them gaining positive impressions from these meetings, in feeling benefited and in developing expectations for similar future procedures. Besides, the presence of clear targets from the start of a project as well as the steady orientation of participants, have been identified as positive factors by other researchers as well [31], and - as it was pointed out in the present research - the better the discussions were scheduled within certain frameworks, the more positive was the evaluation of discussions after they were completed.

Regarding their conduct in the framework of oral communication among them, it appears that team members were “persistent”, but also “silent” or “reactive”. We must not be surprised by this, as “action” causes “reaction”. Therefore, when a team has one or more individuals who persistently try to establish their views, then the rest of the team members will automatically either silence and accept such a conduct, or react. An encouraging fact is that, in our research, the students avoided to assume quarrelsome behaviors, which might cause tension, disorientate team members from their goal and decrease team efficiency [20,21] and - as a consequence - team member satisfaction [21].

The students themselves assessed that they behaved with responsibility and that they made an effort to contribute to collaboration and good communication atmosphere within the team, and, consequently, in the project development. Besides, more research outcomes [4,13] reach the conclusion that through involvement in a project, skills such as correct expression, communication, team work etc can be enhanced. Especially with regard to future teachers, the project has been proven to contribute to the increase of motivation and the improvement of problem-solving skills [7], to knowledge acquisition and enhanced comprehension, to improvement of communicational skills and decision-making within a team, as well as increase in self-esteem [8].

It is worth noting that the collaborating members in our research would rarely be influenced by the views of others in the team. However, they addressed other views with respect. Besides, lack of respect or unwillingness of a member to listen carefully to other viewpoints may bear negative consequences in team efficiency and in the quality of the final product [35].

Additionally, they would rarely command and demand that their orders be executed or show disregard, indifference or unwillingness to participate; on the contrary, during the project implementation, they would try on the one hand to take initiative and on the other hand to encourage other team members, so that they also express their views and take action. Unfortunately, as it is noted by other research outcomes, team members - even though they interact, work and evaluate their work - do not all participate equally “passionately” [34], and sometimes, their presence in the meetings is not regular, which results in the rest of the participants’ trying every time to explain what had been previously discussed [19].

Students, thus, have a very positive overall picture regarding their contribution in the project. Although they consider that the more initiative and action a person takes, the more they contribute to a positive team communication, they do not exclude from this positive contribution even individuals with negative behaviors.

In conclusion, the future teachers of the Department of Primary Education of Democritus University of Thrace, in the framework of their training on project method implementation, have behaved responsibly, always seeking collaboration and communication within the team. In the discussions among them, which were clearly organized and target-oriented, they ensured a calm, friendly climate and respect among participants, enhancing thus their satisfaction and in this way increasing their expectations from similar future procedures.

References


[31] Consent is necessary, because differences during the realization of a project may - when there is competition during resolving them (the differences) - create conflicting situations [32]. Such conflicts also appeared in a research among collaborating members, who, in general terms, supported each other [33].

[32] The possibilities of building self-esteem, team work and communicational skills through project implementation are endless [34].


