Systematically Guided Reflection on Teamwork as an Opportunity to Enhance the Personal and Professional Development of Student Teachers

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Abstract Teamwork is an important generic competence in teachers today, therefore well-developed teamwork skills in student teachers should be an important study goal in modern teacher education. Students' teamwork competence can be developed indirectly – using teamwork as an approach within various courses, and directly – within a specific course, based on a systematically-guided process of personal and professional development in teamwork. A team represents a powerful learning context; several intrapersonal and interpersonal processes cause rich self-reflective and metacognitive learning. Within the qualitative research approach, the method of content analysis was used on 132 students' written self-reflections on teamwork experience as a part of the students' portfolios. The findings indicate that students' in-depth self-reflection on their own teamwork experience contributes significantly to their personal and professional development. The findings are discussed in relation to various theoretical models of team dynamics. Some suggestions for future teacher education and ideas for future research are highlighted.

1   Introduction

The ability to cooperate with colleagues and to work in teams is recognised as an important generic interpersonal competence in the field of teacher education. The *ability to work in a team* as a generic competence was also stressed within the Tuning Project (Tuning Educational Structures in Europe, 2008), as a leading project of the European restructuring process regarding teacher education. Teacher education experts emphasise the need for greater cooperation between teachers. Research shows that teacher cooperation and teamwork increase the efficacy student learning and positive interdependence among teachers, as well as enhance informal reflection and interpersonal feedback (Schleicher, 2019). The university restructuring process in Slovenia took place at the beginning of the 21st century, and almost every empirical study on student teachers' necessary competences emphasized collegial cooperation and teamwork as an important competence in modern teachers (Razdevšek Pučko, 2004; Razdevšek Pučko & Rugelj, 2006, Peklaj, 2010).

The role of contemporary teachers, who can share the professional vision to be reflective experts in their field and pedagogy, as well as important role models for students, demands constant updating and upgrading of their repertoire of approaches, methods, and knowledge. Competent teachers represent a powerful source of *professional capital* for future generations (Hargreaves & Fullan, 2012), and because they are long-term "influencers", it is very important how carefully they are educated and trained. Teamwork can also lead to *a culture of efficacy*, recognised from the point of view of teams, school collectives, or broader society (Bloomberg & Pitchford, 2017).

The literature on teamwork emphasizes that the teamwork approach among teachers should be introduced, applied, evaluated within a systematically guided process, and accompanied with reflection (Arcaro, 1995; Brady, 2009; Buckley, 2000; Day, 1999; Polak, 2014; Reynolds, 1994; Tom, 1997; Vangrieken et. al., 2014). Day (1999, p.7-8) sees teamwork as one of the main trends in contemporary education and according to him, it should be one of the school demands, because "Teaching takes place in a world dominated by change, uncertainty and increasing complexity." […] "Schools are confronted by a number of changes, which lead to several demands, beside many others (e.g.: commitment to education for all, an extension of the period of initial schooling, recognition of the growing importance of lifelong education etc.)

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also to increasing emphasis on teamwork and cooperation". According to Brady (2009), communities of teachers can provide a better space for an individual teacher to direct their own development, while being provided the opportunities to be supported and challenged by their peers, as well as exposed to the research and expertise of other educators and professionals.

1.2   Enhancing of Teamwork Competency as Part of the Professional Development of Student Teachers

A successful program of teacher professional development should be based on critical and intellectual discussion, which can only be developed in a group of teachers (Yaxley, 1991; Bell & Gilbert, 1996). To develop the teamwork competences of teachers, the university teaching process needs to include various approaches and teaching methods, directly and indirectly focused, with the aim to motivate student teachers for teamwork in a school context (Polak, 2014). Teacher teamwork cannot be learned on the basis of someone else's experience with teamwork, it needs to be systematic and designed as a step-by-step approach based on learning through the individual's own experience. Learning within a team includes learning about oneself, learning about others, learning from the others, and learning about the group. Team planning, team teaching and team evaluation encourage teachers to be involved in the process of sharing experiences, views and opinions, as well as developing collective responsibility for teaching and learning. Teacher teamwork as a learning context ensures psychologically rich processes based on the dynamic nature of social interactions within the team (interpersonal perception, relationships, communication, problem solving, etc.), thus lifelong learning "in" and "about" teamwork should become the permanent way of coping with changes and reaching team goals (Polak, 2007).

Mumford (1999) divides the outputs of various training programs, including a teamwork-training program into knowledge, skills and insight. When we learn in the context of teamwork, the learning process includes acquiring information from others in the group, tapping into the expertise of others, awareness of skills and techniques used by others in the group, as well as awareness of the interaction between oneself and others and between others. Within teamwork, team members practice their personal communication skills, skills of influencing and listening, and many other teamwork skills. Some teamwork experts (Bloomberg & Pitchford, 2017;

Brock & Grady, 2009; Keville et al., 2017) teamwork skills define through the list of desirable personal traits, competences and teamwork strategies. Regarding the team members' insights and attitudes, Mumford (1999) stresses the importance of the awareness of why individuals interact together in the way they do and the awareness of why the team achieves or does not achieve its objectives.

Teamwork is a very successful way of coping with challenges and achieving team goals. Gordon (2018) points out that the most important task of a team is to create a culture – but not just any culture. It must be a positive culture that energizes and encourages team members, fosters positive relationships and successful teamwork, empowers and enables team members to learn and grow, and provides an opportunity for team members to do their best work (Gordon, 2018). A positive team culture can be established when team members: (1) work together toward a shared vision with a greater purpose, (2) enhance optimism, positivity, and belief in success, (3) transform and remove negativity, (4) communicate with and connect to each other, (5) commit to and care for each other, and (6) strive to become better. "Because no one creates success alone" (Gordon, 2018, p. 1).

1.3   The Program of Systematic Enhancing and Motivating (Student) Teachers for Teamwork

The Teamwork (Student) Teacher Training Programme – A Developmental Approach, designed by the author of this paper (Polak, 2001; 2003), is a 30-hour training program, which can be applied both as a training program for in-service teachers, as well as a course for students in programs of teacher education. Through carefully designed intra-personally and inter-personally focused activities, several aims of the program could be accomplished. The whole process is based on a step-by-step approach, which has to be carried out without time-pressure. In general, the main aim of the program is to stimulate personal motivation for teamwork in educational practice, to raise the level of (student) teachers' professional reflection, and to ensure their professional development in the field of teamwork. The main purpose of the program was the author's (Polak, 2003) assumption that teamwork activities, designed as special assignments within the program (e.g., completing questionnaires, writing a portfolio, team discussions) would stimulate (student) teachers' higher level of cognitive, social and emotional activity through their focused reflection on teamwork dynamics and

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psychological processes within a team. The main goals of the program (Polak, 2003) are:

(1) to introduce the (student) teachers to the theoretical, mostly psychological and pedagogical, background of teamwork in the field of education;

(2) to increase (student) teachers' self-awareness and critical self-perception for interpersonal within-team communication;

(3) to identify their concepts of teamwork and their conceptions of interpersonal differences among team members;

(4) to enhance the sincere verbalisation of personal fears, negative and positive expectations regarding teamwork, towards other team members and school principals;

(5) to analyse past positive and negative teamwork experiences and to achieve critical insights on problems, mistakes and conflicts within the team;

(6) to analyse participants'/students' formal and informal roles in the team;

(7) to ensure that the (student) teachers get an authentic teamwork experience of team planning, team teaching and team evaluation;

(8) to reflect and share personal experiences of teamwork and intra-personal insights about constructive and destructive team processes; and

(9) to analyse problems and communication conflicts accompanying teamwork and introduce the most appropriate strategies for resolving them, and (10) to evaluate the advantages and obstacles of teamwork in education practice.

The most important part (as well as the goal) of the program is focused on the implementation of team planning, team teaching and team evaluation in educational practice. Other goals can also be reached within the program because a team is a very powerful and unpredictable learning environment. Through the process of learning within a team and through teamwork, (student) teachers experience several psychological dimensions of teamwork, increase their level of teamwork competency, and consequently progress in their professional development.

Previous research results on the application of the program in educational practice show that engagement in the program evidently contributes to the participants' personal and professional development. In a qualitative study of Slovenian primary school teachers (Polak & Devjak, 2010), many of the participating primary education teachers highlighted that they acquired new knowledge about teamwork – this was

identified by almost one third of the sampled teachers (32.6%). The second most frequent answer was that during the active teamwork in the program, teachers were more able to reflect on teamwork processes and their dynamics in a deeper and broader manner (14.0%). More than 10% of the participating teachers reported that under the influence of the program, they improved their team planning and perceived conflict in a different manner than they had before (both 10.5%). Some teachers reported that through the guided process of reflection within the program, they had the opportunity to confirm their own views, ideas and suggestions about teaching (7.5%), recognized the approval of their work (7.0%), learned how to evaluate their work in a more systematic way (5.8%), learned how to improve their motivation and communication within the team (4.7%), and learned how to develop new teamwork skills (2.3%). In their written answers, they noted that the process of teamwork within the program stimulated their professional development in many ways, mostly in the direction of gaining a broader and deeper understanding of team dynamics and the need for lifelong learning through teamwork experiences.

1.4   The Process of Systematically-Guided Reflection on Teamwork

The Teamwork (student) Teacher Training Programme – A Developmental Approach program was designed to foster several intrapersonal and interpersonal psychological processes, e.g., trust, respect, communication, social perception, role identification, problem solving strategies, etc. (Polak, 1999). To reach students' awareness of their own feelings, attitudes, communication, and actions regarding teamwork, the process of reflection needs to be guided carefully and systematically, with respect to the students' intimate feelings and their preparedness to "explore" and to disclose their inner selves. The authors' past teaching experiences show that this can be achieved only through an in-depth critical reflection from the point of view of both: a) students' reflection about themselves as team members as well as b) their perception of other team members (Polak, 1999; 2012; 2014). According to the step-by-step approach of the program, various teaching methods within the course (e.g., lectures, questionnaires, assessment checklists, written and oral reflections, discussions in pair or teams, plenary discussion, hypothetical problem solving, experienced learning of teamwork, etc.) and a psychologically safe and trusting environment need to be established. To enable sincere and open communication, there should be a democratic and trusting climate within the group of students. Student teachers should also have enough time to experience all these activities,

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didactically shaped as lectures, tutorials, team planning, team teaching and team evaluation, without any time pressure. Time pressure might represent a source of anxiety and a de-motivational factor for the implementation of certain changes in their team-teaching approach.

The program activities, presented above, were designed to foster the individual (student) teacher's awareness of the importance of oral and written critical reflection. The leader of the program (e.g., a university teacher) must therefore be very sensitive and flexible; the participants must be guided through individual reflection, feedback on the process must be given, and the participants should share their thoughts and insights individually or on a team level. During the program, an individual's expressions of their expectations and feelings are stimulated in an oral and/or written way. Honest and sincere oral reflections contribute to an open team climate and group cohesion; and the written reflections, as a part of their personal portfolios, represent an authentic documentation of their personal and professional development. Within each activity they experience in the program, students are asked to write down their impressions, attitudes, thoughts, dilemmas, feelings, etc. In the writing process, students are allowed to write in their own style. According to the goals of the study course, their portfolios consist of several chapters, based on the following specific assignments: (1) a written reflection on the student's personal conception of teamwork; (2) a written reflection on their own fears and positive expectations regarding teamwork; (3) a critical analysis of their team roles and teamwork skills; (4) a critical reflection on their team communication, and (5) the report and written reflection on their personal teamwork experience in the educational practice (e.g., primary school, kindergarten etc.) must include all phases of the process – team planning, team teaching, and team evaluation. The students introduce their projects and teamwork experiences at the plenary session in front of the whole study group (team teaching). The (student) teachers are encouraged by the leader of the program to be personally focused (e.g., focus on relationships, feelings, intra-personal and interpersonal perception), critically focused (e.g., focus on doubts, dilemmas, critical thoughts), problem-focused (e.g., focus on the identification and exploration of teamwork problems, conflicts within the team), and technically focused (e.g., team teaching content, time-management, teaching approaches, didactics methods and tools) in their written reflections (Louden, 1991). According to the pioneer of the written reflection – Schön (1983), during the practical experience of teamwork in educational practice, student teachers

experienced reflection-in-action (during team teaching) and reflection-on-action (during the team evaluation). One can assume there was also an intensive process of reflection during the team-planning phase, which can be called "reflection before action" with the strong anticipation of students' behaviour in the classroom.

1.5   The Aim of the Study

The aim of the study was to identify the extent to which students in the 2nd cycle of the Special and Rehabilitation Education study program reflected on and evaluated their professional development through experiencing the abovementioned training program (Polak, 2001; 2003), which was implemented in the *Teamwork and supervision* course. The program was applied with the purpose of encouraging student teachers to utilise teamwork, and to implement and develop their teamwork skills and their competency for professional reflection. The focus of this study was on the students' personal teamwork experiences in educational practice and their self-recognition of professional development.

2   Method

The study was based on the qualitative research approach, using the method of content analysis on the students' portfolios.

2.1   Participants

The sample included 132 students from the first year of the 2nd cycle of the Special and rehabilitation pedagogy study program (Module for special developmental and learning difficulties) at the Faculty of Education at the University of Ljubljana. All of them were females aged 23 to 24. The sample consisted of four generations of students: 31.8% were of the 2013/2014 school year, 29.5% were of the 2014/2015 school year, 12.1% were of the 2015/2016 school year, and 26.5% were of the 2016/2017 school year (all before the COVID-19 pandemic). All generations of students in the sample took the same course with the same teacher (i.e., the author of the program, A. Polak), so one can safely assume that they experienced similar content and similar situational learning in the university context.

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2.2 Data Analysis

The students' portfolios were analysed using the method of content analysis. The data was not anonymous, because the portfolios included some personal information (e.g., first name, last name, study program, year of study, team members, etc.). The first order categories were established on the basis of theoretical expertise in the field, and open-coded categorisation was used during the categorisation. The following nine categories (areas of professional development) were created: team role development, linking teamwork experience with theoretical knowledge, communication skills development, analysis of individuals' strengths and weaknesses, identification of teamwork benefits, recognition of positive interdependence, personal attitudes towards teamwork, personal importance of teamwork experience, and impact on individuals' own personal development as a part of professional development.

3 Results and Discussion

In using content analysis on the students' portfolios, the students' insights regarding their professional development under the influence of their teamwork experience during *The Teamwork (Student) Teacher Training Programme – A Developmental Approach* program were the focus. The students' written reflections on the teamwork program were one of the chapters in their portfolios. *Figure 1* presents the percentages of the students' most frequently recognised categories as indicators of their professional development during the program.
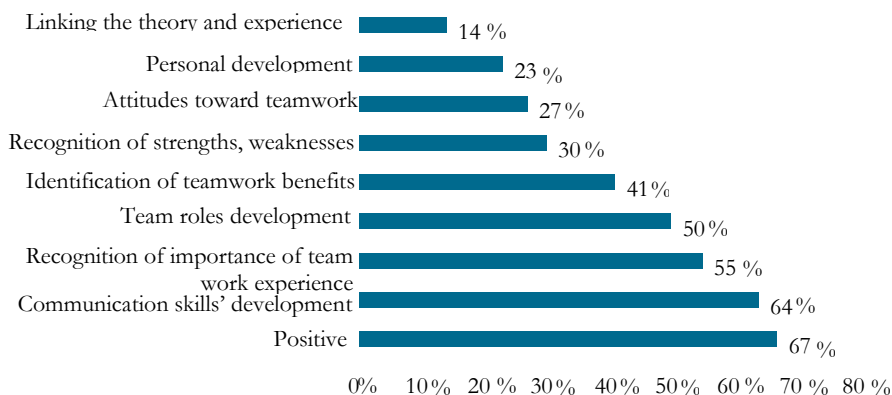

Figure 1: Categories recognised as indicators of professional development by percentage of students (N = 132)

3.1   A Positive Interdependence Between Team Members

The results show that more than two thirds of the students (67%) in our study mentioned a ***positive interdependence*** between team members in their written reflections. In every teamwork situation, positive interdependence is a basic condition for effective teamwork, based on trust, the assignment agreements of all team members, and shared responsibility for reaching team goals. The positive interdependence manifested in quality cooperation among team members, complementary and constructive communication, good relationships within the team, and the team members' dedication to the team goals. Without positive interdependence, it is impossible to reach team goals (Lantz et al., 2020; Maddux, 1996; Polak, 2007). The students in our study recognised that they accomplished much more than they would have in individual work:

> – *"I would like to point out that for both of us this teamwork was an experience that helped to improve our relationship. As the special educator [as a team member from the school] pointed out in the evaluation, this probably wouldn't have happened if we had not established a relationship, based on trust, adequate communication, respect, a mutual desire to achieve a common goal, empathy, similar values, etc." (I. S.)*

As many researchers emphasize (Lantz et al., 2020; Polak, 2007), positive interdependence provided the feeling of psychological safety because the students shared responsibility and reliability with others:

> – *"When I thought about my feelings during the team teaching lesson, I admit that of course I was a little bit scared, but on the other hand, I was much calmer than if I had been teaching by my own. I knew I wasn't alone in the classroom and that I could turn on to my colleagues for help, if I were in trouble, and this gave me a sense of security." (N. S.)*
> – *"Knowing that I shared responsibility for teaching meant a lot to me. I felt relieved, but I also knew that I was expected to participate actively." (B. M.)*

They also expressed the important role of commitment to the team:
> – *"We are both strongly committed to the team; this relationship has formed through our past, very positive collaborative experiences, as well as a confidential and respectful relationship." (K. K.)*

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As seen in the above quotes from the students' written reflections, the students recognised their professional development in experiencing shared responsibility for teaching; they felt that other team colleagues trusted them, and consequently they felt much more competent and had more trust in themselves. Confidence within the team is an important factor of team commitment and team efficacy (Aranda et al., 1998; Lantz et al., 2020).

3.2   The Development of Communication Skills

Verbal and nonverbal communication are the basis for establishing effective teamwork (Chivers, 1995; Maddux, 1996; Streshly & De Mitchell, 1994). In almost every text about teamwork, communication is emphasized as an important aspect of the professional development of teamwork members. In our study, 64% of the student teachers recognised their improved communicational skills as the evidence of their professional development, caused by their teamwork experience within the program. This was explained by the importance of team members being present at the team meetings in person, as well the importance of non-verbal communication:

- *"It's important that everyone is present at the team meeting in person, so the non-verbal side of communication, agreement and disagreement can be visible during the making of decisions." (U. L.)*

The student teachers emphasized the role of non-verbal communication, which can be, as Vec (2005) stated, a very powerful expression of relationships between team members, as well as feelings, attitudes and members' intentions:

- *"There were moments when non-verbal communication was just enough to understand each other." (M. J.)*

Constructive and successful communication is a very important factor for relationships in the team, which helps team members to build team (group) cohesiveness (Dunbar, 1993; cf. Vec, 2005).

- *"After a really successful collaboration, my teacher and I have made a great deal of progress in the field of interpersonal relations, personal values, professionalism. We both had a sense of fulfilment, satisfaction and success, and we have certainly improved our*

analysis skills, listening skills, skills of constructive criticism and last but not least, open communication, which I believe is crucial for any cooperation." (S. K.)

The student teachers in the study also emphasized the importance of feelings of psychological safety, without feeling pressure from more experienced team members. Namely, the student teachers could sometimes feel unequal in the relationships and communication:

- *"I feel like I communicated with her in a more cautious way, and I was more careful about what I was going to say, because I wanted her to have a good opinion of me. At the same time, I did not feel such a strong pressure that came from the position of power of the special education teachers, as those who know more and have more experience, that I would not be able to be honest and genuine. So, I was not afraid to express a certain doubt about the choice of activity for students, or to give feedback that may not have been so consistent with the view of the other team members." (M. V.)*

In the team, it happens quite often that the most experienced team member has more initiative and takes a leading role in team-teaching (Polak, 2007; 2012), which could cause other team members to feel unequal. In the case of student M.V., her sense of safety and equity was strong enough for her to have the courage to express her opinion openly. In their written reflections the students confirmed that confidence; the feeling of safety and equity are very important parts of successful communication, and they recognized their improvement and professional development in this aspect. Effective teams develop a team culture of trust and psychological safety (Aranda et al., 1998; Arcaro, 1995; Lantz et al., 2020; Polak, 2007; Robbins & Finley, 1995) through constructive communication, e.g., by sharing ideas and information, by recognising feelings of acceptance, and through appreciation of individuals' work.

To conclude, in almost every study, team communication is recognized as an aspect of teamwork that team members need to improve, especially listening skills and assertiveness (Chivers, 1995; Da Fonte et al., 2017; Malone & Gallagher, 2010; Pratt et al., 2017, Lantz et al., 2020 etc.)

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3.3 Recognition of Individuals' Own Teamwork Experiences as a Factor in Professional Development

In their portfolios, more than half of the student teachers from the sample (55%) explicitly mentioned their recognition of the great importance of their personal teamwork experience as a factor in their professional development. The student teachers commented that this experience enabled them to gain insight into the reality of team-teaching and helped them to identify the advantages of teamwork in education:

- *"With this [team-teaching] experience, I have gained a valuable experience of how team teaching and insight into the work of a classroom teacher will help me a lot in practice. I also became even more aware of the importance and strength of team teaching." (N. S.)*

In gaining teamwork, and especially team teaching, experience, the student teachers recognized that teamwork skills could be trained exclusively by experiencing teamwork in person and others' experiences cannot be as powerful a learning context as their own:

- *"Although there are different trainings and exercises that can help us develop our own teamwork skills in a controlled environment, we can still only get the experience of teamwork in practice." (B. B.)*
- *"This kind of experience of team teaching enriched me professionally. You should do this more often because you learn a lot of new things; you get a lot of new ideas for different activities in the classroom." (K. C.)*

The authentic personal experience challenges individuals' positive and negative expectations and prejudices regarding teamwork:

- *"As one of my biggest obstacles I would like to stress the prejudices or some opinions I had in the past about teachers in practice. I was often afraid to be active because I am young and unexperienced. I assumed that I would not be seen as equal or competent enough! It was during this teamwork that I received a confirmation that it [the attribution of feelings] is not always the case!" (S. P.)*

Through the personal experience of teamwork in educational practice, the student teachers in our study also recognised that teamwork takes a lot of energy and is time-consuming, but it can be a good platform for the reflective learning of all team members:

– *"I found [the teamwork] very exhausting and extensive at first, but when we systematically shared the work, that feeling disappeared. I liked that I played an important role in the team and that I was an important part of the whole process. At first, I expected the older teachers to take over the leading of the team, but that was not the case. Even on the contrary, I had the opportunity to work with another, 'older' and much more experienced teacher, and I was able to learn a lot more." (A. J.)*
– *"I also learned a lot about myself through the teamwork experience. Participants constantly set up a mirror in which I could observe my reaction, communication, skills, etc." (K. L.)*

As can be seen from the quotations taken from the student portfolios, the teamwork experience was a very special learning situation for student teachers, where they felt safe and where they could make mistakes, get support and tips on how to correct them:

– *"I also liked a safe environment, where I felt accepted and where I had the confidence that if I make mistakes, nothing scary would happen, but I'll get an advice or a recommendation on how to avoid or correct the mistakes in the future. I realized how important it is to feel safe at work – namely, if a person feels safe, then it will be easier to risk and try new things, new ideas, to look for new ways without trembling about how the environment will accept it. But at the same time, the person will probably move forward more quickly and ensure for herself that she will not stay in the same place and fall into routine work, which will be as everyone else does." (Š. H.)*

The student teachers realized, as every research study on teamwork shows, that the individuals' personal engagement in teamwork in educational practice importantly contributes to their professional development, especially in the field of teamwork skills and communication skills. These findings are similar to the findings of Pancsofar and Petroff (2013) on a sample of 129 teachers. The teachers in that study, who reported more opportunities to learn about co-teaching from pre-service and in-service training, were more confident in their co-teaching practice.

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However, only the sample of in-service teachers, trained for teamwork, demonstrated a higher level of interest and more positive attitudes towards co-teaching than the teachers, who reported less frequent training in co-teaching.

3.4   Team Role Identification as a Part of Professional Development

The self-identification of team roles is usually a spontaneous process within the team, and it evolves from the goal-defining phase in team dynamics and crucially contributes to team effectiveness (Belbin, 1993; Polak, 2007). For reaching team goals it is very important that team members are aware of their own strengths and weaknesses, as well as the roles that are needed but not present in the team.

The student teachers in the study perceived the importance of role identification within their team; half of them (50%) highlighted the importance of analysing roles. The students reported that they learned something new about themselves and recognized themselves in several different roles:

- *"With this task, I got a good experience of teamwork. I found it important for team members to understand each other well, that the roles have to be coordinated and carefully distributed among members. I also found out that I can't have a single role on the team; I found myself in multiple roles – even in those, which are not evidently manifested."* (K. F.)

The team role identification process also gave the team members confidence that somebody in the team would take over various assignments and be supportive to other members of the team. Their field of expertise played an important role, as well the perception of specific competences and confidence within the team:

- *"Because the special education teacher was working with a group of students for a long time and knew everything much better than I did, she took the role of coordinator of the team. That was a big help to me, because I knew I could count on her help if something went wrong."* (K. L.)
- *"I also felt good in my role, because I knew I could get a support and understanding, if I forgot something or did something wrong"* (T. F.)

Individual team members' strengths could be seen as an opportunity to manifest their expertise, while self-identification of their own weaknesses could also be an opportunity for their colleagues to express their strengths (Polak, 2012). The formal and informal role identification process could be a very powerful psychological mechanism for improving the acceptance of individual team members' specific personal characteristics and professional competences, which leads to individuals' higher awareness of their personal responsibility in relation to the team. According to Pratt et al. (2017), the responsibilities in the team should be divided according to the principle of personal comfort, professional expertise and evaluation, which is especially important in the phase of team planning.

3.5   Recognition of Teamwork Advantages as Evidence of Professional Development

Teamwork in education has many advantages, and some authors (e.g., Buckley, 2000) divide them into the following three categories: advantages for students, advantages for teachers, and advantages for the whole institution. For 41% of the student teachers in the sample, the recognition of teamwork advantages was evidence of their professional development. They recognized advantages primarily in better classroom management, more flexible teaching, and more interpersonal support between the team members.

In their reflections, the student teachers primarily identified the advantages that teamwork has for students and teachers:

- *"We concluded that while the work was exhausting, we were much more effective than we would be as individuals. It took us a lot of time, but less as if we were doing it alone. The students' results were significantly better." (A. L.)*
- *"Team teaching has its advantages; we were less occupied because we split work equally. We had better control over the students and together we were able to include and check on all the students' work, so that no one was excluded or less active." (K. C.)*
- *"Teamwork in education has opened me up to new perspectives of thinking and perception of teamwork. I believe that teamwork is of paramount importance; both for students who have more support and assistance if there are two teachers in the classroom, as well as for the teacher himself, who receives immediate feedback on his work." (K. C.)*

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– *"The implementation of team teaching has once again given me a confirmation of my work, it makes work easier for us, and it just makes the lesson more diverse and of better quality." (N. L.)*

In this study, the advantages for students were mostly recognized in the teachers' better classroom management, as well as in professional confirmation, collegial feedback and support, as Buckley (2000) emphasizes. There are many other advantages for the students, teachers and educational institutions, as several studies on teamwork in education confirm (Arcaro, 1995; Buckley, 2000; Chivers, 1995; Polak, 2007).

The student teachers in the study also recognised the importance of the heterogeneity of the team members, and they were aware of the outcomes of this phenomenon:

– *"Although there are differences in the number of experiences, opinions, views and knowledge between us [team members], it is this heterogeneity that has influenced us to get new ideas all over again, of what else to include, what else to do, how and why." (J. H.)*

Buckley (2000) emphasizes that teamwork could elicit new teaching perspectives, developed through individual (intrapersonal) cognitive conflicts and social-cognitive (interpersonal) conflicts in their cognitive system (Yaxley, 1991), which leads us to conclude that teamwork constructs a very "rich" social context for the professional development of (student) teachers (Polak & Devjak, 2010).

3.6 Analysis of Strengths and Weaknesses as a Part of Professional Development

The activity of guided individual reflection on personal strengths and weaknesses, which can represent important obstacles of effective teamwork, was also part of the program. Of the student teachers, 30% stated that this reflection process stimulated their professional development, especially if they had the opportunity to manifest their strengths in the team:

– *"I felt quite comfortable performing, as both special education teachers allowed me to give ideas myself and co-design our workshop with the children. Because I had the opportunity to work in my strong field, I had a high motivation and desire to successfully do a job." (H.N.)*

When team members have the opportunity to express themselves through their strengths (personal characteristics, professional competences, habits, talents, etc.) and to compensate for their weaknesses with the support of their colleagues, this enables the feeling of safety within the team (Polak, 2012).

3.7   Recognition of Positive Attitudes Towards Teamwork

Positive attitudes to teamwork are an important precondition and promotor of successful teamwork (Polak, 2003; 2007). Of the student teachers, 27% expressed that during the course their attitudes towards teamwork changed in a positive direction. They confirmed the influential role of attitudes, especially in relation to motivation for teamwork:

– *"In this [teamwork] experience, I realized that a personal attitude towards teamwork is very important, and also the ones of others, which can either inhibit or encourage enthusiasm in the team." (S. G.)*

The positive attitudes of team members towards teamwork, especially the motivational dimension of attitudes, increase motivation for practising teamwork (Chivers, 1995; Polak, 2003) and vice versa – positive experiences with teamwork enable more positive attitudes towards teamwork to develop (Polak, 2003) and lead towards new experiences of teamwork.

3.8   The Recognition of Personal Development

A team can only develop through the personal and professional development of its members – both individually and as a whole entity (Polak, 2003). Teamwork involves the process of establishing relationships and developing various interpersonal skills that have a particular impact on the personal aspect of professional development. After the teamwork experience, the student teachers

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were stimulated to reflect on their experience. They gained deep intra-personal insights, as well as critical thoughts about themselves and their colleagues:

- *"Only the work 'on self' directs us to raise awareness and reflect the dimensions of teamwork, and consequently leads to our personal development. Sometimes it is hard to accept well-intentioned criticism, but I have realized from my experiences, that this is the only way we can grow and develop ourselves." (P. K.)*

- *"Because we worked in the field of developing social skills, about which I do not have so much knowledge, I was inexperienced. My team colleague felt similarly, but she was the first one to admit this fear. I felt relieved. Then, I also admitted my fear aloud." (E. S.)*

- *"In my opinion, the main advantage of the team teaching was the personal growth of all of us involved in the teamwork, because we had to work together, negotiate and adapt to each other all the time." (K. K.)*

In the study, 23% of the participating student teachers noted that focusing on their own internal psychological processes improved their awareness and increased the monitoring of their own progress. The results of the study on the teamwork of 86 primary education teachers (Polak, 2003) showed that teamwork has a powerful influence on personal development. During the program of enhancing teamwork (the same as in this study), the teachers reported that they became more self-confident (18.6%), more tolerant toward others' opinions and ideas (17.4%), more self-reflective (16.3%), more assertive (16.3%), and more sensitive regarding team problems (11.6%). In this field, there is a lack of research findings, especially based on quantitative methodology.

3.9 Linking Theory with Personal Teamwork Experiences

In every new experience in which we feel insecure, it is good to support our experience with theoretical knowledge from professional literature. New insights into teamwork thus enable us a better understanding of oneself and others and promote critical thinking, as well make sense of the reality of the team (Polak, 2007). Of the students in this study, 14% reported that the personal experience of teamwork allowed them to test certain professional propositions and theoretical principles they had learned in class and when reading:

– *"In team planning and evaluation, my expectations were better matched to reality, so I think we can prepare well for what's happening in the team, and only experience can prepare us for what's going on in the classroom."* (B.B.)

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As can be seen, the student teachers also recognized the importance of professional reflection and its strong connection with all phases of teamwork.

4   Conclusion

A team as a social group with very intensive and unpredictable processes enables rich intrapersonal and interpersonal psychodynamics and thereby represents a very powerful learning context. The results of the content analysis of (student) teachers' portfolios confirmed that the personal experiences of teamwork within the course on the teamwork had a great formative effect – regarding content analysis of the written reflections they contribute to recognisable personal and professional development. The student teachers in this study recognised several areas of professional development, influenced by the program of systematic guided reflection on teamwork (*The Teamwork (Student) Teacher Training Programme – A Developmental Approach).* The majority of the participating student teachers recognised the following positive aspects in their professional development*:* positive inter-dependence with others in the team, development of communication skills, and the recognition of the importance of teamwork experience and team role development. The student teachers from the sample mentioned the identification of teamwork benefits, the recognition of their strengths and weaknesses, more positive attitudes towards teamwork, their personal development, and the process of linking theory and practice in the field of teamwork as the 'evidence factor' of their professional development. The personal experience of teamwork in the study allowed the participating student teachers to develop their personality traits, and to explore their internal impulses, fears and weaknesses, etc. At the same time, the professional development of teaching staff is an every-day and longitudinal process. The findings show that the process of writing a portfolio can be a useful 'tool' to express insights into one's professional development – manifested in a personal 'document', as well as a stimulus for achieving new theoretical knowledge on teamwork. The portfolio enables the comparison of personal insights and observations with research findings, insuring the reflection process on the highest level of critical reflection, e.g., the integration of personal views and theoretical

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background in the field of experience (O'Hanlon, 1991). The results also show that for more focused critical reflection on their teamwork, student teachers should be engaged in a systematically guided, theoretically supported, carefully monitored, and permanently evaluated process of learning by practising teamwork. Only personal experiences enable their process of linking theory and practice in the field of teamwork. Learning about teamwork must be a compulsory part of the undergraduate and post-graduate teacher education programs (Polak, 2014) as well as in-service teacher training (Devjak & Polak, 2007) to ensure the continuity of (student)teachers' professional development.

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