National Report Germany

1.1. National Context of Education in relation to PLCs & internship

In the federal system of Germany, the teacher training program is in the responsibility of the federal states. Under the commonly agreed standards of teacher education at universities by the Conference of Ministers of Education (https://www.kmk.org/), the federal states generally offer teacher training programs at university. The only exception is the state of Baden-Württemberg, which brings out teacher education in primary and secondary first level at so-called pedagogical universities/universities of education. These are characterized by more extensive studies in psychology and educational science but other than that acts equally.

All teacher training courses in Germany have in common that they require a three-week-internship for orientation at the beginning of the university studies and a so-called integrated semester internship in the middle of the university studies. All in all, teacher training courses are marked out by the perspective on competences that have to be built up in the chosen scientific domains semester by semester. Also main formats of teaching and exams are prescribed by the module manual that the university itself compiled according to the state's specifications. The specific methods in class though, can be chosen by the lecturers. This means that university teachers decide whether their class includes cooperative forms of interaction as much as the tasks that the students have to complete in cooperative work and how they pick up the group results in class. The same applies to school practice supervision, which is organized in small groups and therefore suggests phases of cooperative work.

There is no explicit advanced training for lecturers how to arrange cooperative forms at university, but they can choose from a list of trainings arrangements on university didactics if they want to deepen their competence on that issue. One can expect though, that all lectures have experienced working in groups themselves in various ways in their own career at school and the years at university when they were a student. Therefor formats of cooperative learning is quite natural. It should be mentioned that the rooms and furniture at German universities are mostly arranged for seminar activities and sizes of group from 30-50 students and have movable tables and chairs that can be converted for cooperative learning situations. Exceptions to this are the classical lecture halls with fixed installed benches for I bigger group of students.

Against this background, one can expect that at German universities the cooperation of students within the classes and in project-related activities is well understood and often practiced. In addition, teacher education always intents to raise students' professional methodical knowledge and offer them experiences, which they can reflect on in relation to their later teaching activities with pupils at school.

Last but not least, it should be mentioned that numerous lecturers in the field of teacher training worked as teachers in their first profession and are familiar with diverse didactic formats, which they then adapt to their university lectures.

The variations of cooperative work and cooperative learning assignments at the University of Education Weingarten as well as at other universities known to the authors are quite broad. They include extensive phases of group work as part of a seminar session, short small group discussions as part of a classical lecture, joint project work in the times of self-study next to the classes, exam preparation with self-chosen learning groups for exam preparation, project development groups in connection with certain topics such as research-based learning, practical developments in subjects with a practical component or presentations organized and run in groups.





Exam formats are generally not group formats. But most compulsory work in class can be done in a group. Then the results mostly are reviewed only as passed or not passed. In consequence, it sometimes happens that students don't aim at a high quality of their results but see do an ok performance.

In recent years, many third-party funded or state funded university projects address innovation at German universities including developments of cooperative formats of practice mainly for the students. These formats experience e.g. peer coaching, research-based learning, open space groups and groups arrangements in the specific format of professional learning communities (https://www.qualitaetsoffensive-lehrerbildung.de/). Thus it can be taken that currently there is quite an interest in supporting professionalization by mutual learning and team development of students in teacher training.

Since the German teacher education system also runs a second phase of teacher education which combines teaching practice in schools with further studies at a so called seminar, a version of rather science oriented education with characters of further trainings. This second phase lasts 1,5 years and is being finished by oral and practical exams. The grades achieved count even more for employment than the first university exams. In those classes also group work and cooperative learning arrangements are common figures and the second phase students themselves work in little self-directed groups a lot. At some seminars in Germany the lecturers task the second phase students explicitly to work with the format of Professional Learning Communities (e.g. Funke-Terbart, 2020).

The cause to support cooperative learning by focussing PLC explicitly can be found within the school system and the advanced training offers for teachers this formats. There PLCs have been discussed and highlighted during the last few years. Since lecturers in the second phase always are teachers and mostly work concurrently at schools. It can be assumed that they brought the idea into the second phase of teacher education.

1.2. Methods

We asked

- Teacher Trainers/University Professors (n=15)
- Student Teachers (n=19)
- Students with job in the education system next to school (n=23)
- Mentors (n=8)
- Heads (n=4)
- Teachers (no mentors) (n=3)
- Teachers (with experience as mentors) (4)
- Teacher trainers second and third phase of teacher education (n=16)
- Parent Representative (n=1)

1.2.1. Student teachers

The students were asked by a paper & pencil questionnaire that contains seven open questions on their cooperative behavior at a university. The survey refers to the objectives, forms, obstacles and conducive conditions of student cooperation in university and cooperation activities during internship at school. The open answer format of the questionnaire was chosen to gather opinions, attitudes and experiences under the focus of exploration. Some questions also focus on possible situations that could occur (in their imagination) once they work as a teacher in school or in extracurricular education programs. We noticed that some students didn't fill in the whole questionnaire and gave rather superficial answers on aspects on the





process and structure. It might be that they had too little idea what to look at exactly. The sample consists first of students of speech therapy, environmental education and multilingualism (between the 3rd and 6th semester) of which only some expect themselves working in school after having graduated. The questionnaire was handed out to 46 students as a paper and pencil version or alternatively as a digital template. However, the response of the digital edition was limited to a number of 4, whereas the paper and pencil version was returned completely (n=19). Second additional 19 student-teachers (between the 1st and 3rd semester of the teaching program) were asked with the same instrument. In total, 42 students from different courses of university were interviewed.

1.2.2. Teachers

Further groups were interviewed via questionnaire that were to be answered in paper & pencil approach or via telephone interviews: 3 teachers who do not have a mentoring role inschool explained their knowledge of topics concerning general cooperation practice and in particular the concept of PLC. In the same way, we asked 4 teacher mentors about their experiences in advising and supervising students in the context of the internship.

1.2.3. Teacher Trainers

The survey was run also run in the framework of a university forum, where we collected written statements about the individual understanding of PLCs and their framework conditions, topics and structures from 16 teacher trainers working at the second phase of teacher education (Referendariat) but some of them are involved in the first phase also and some have experiences with in-service training for teachers.

We also got the point of views of 15 university lecturers which run classes in elementary school education but mainly primary and secondary first education. About half of them worked as a teacher in their first profession.

1.2.4. Heads and Parent Representative

Finally heads of schools (n=4) and as a stakeholder a parent representative of an upper secondary school were asked about various experiences of cooperation in schools and in particular about the working methods in PLCs. The heads answered a questionnaire by email, the parent representative was asked via telephone.

1.3. Current status of learning opportunities for student teachers (university phases/internship phases) in the contexts of PLCs

1.3.1. Concepts of cooperation and learning communities etc.

In order to inquire about the idea of cooperation in general, all groups were addressed in this regard, but with slightly different questions according to their situation. The formulations were, for example in the students' questionnaire: "How and why do you cooperate in your university studies?" Thus there was no direct question on the concept. To teacher trainers in second and third phase we passed the question: "How would you describe the cooperation in school with a few keywords?" or to teachers: "What do you understand by the term "cooperation"?" Those questions inquire on the idea of a concept of cooperation.

From the perspective of students with a non-school education background

This group of students of Speech Therapy, Environmental Education and Multilingualism that focus processes from an educational but no classroom perspective gave only little information with regard to the structure of joint work processes. Most frequently, the comments were focused on two process segments: Exchange of information then sharing the results. More





detailed process descriptions were named by three of the participants: Group identification, task analysis, task processing, presentation and end of cooperation.

From the perspective of Student Teachers

Only few **student teachers** had an idea how to answer on the question of the structure and processes of sessions in the cooperation they practice. Two people mentioned the following procedural aspects, the first segmented in: meeting, identification of topics, brainstorming, setting priorities, division of work, bringing work results together, the other: arrangement, division of work, then exchange (usually no new meeting).

Because the questionnaires for the following groups refer more specifically to the work with PLCs and in particular to the current cooperation practice at school, the answers were given in a more differentiated way.

From the perspective of Teachers with/without Mentoring

Of the **teachers who have no experience in mentoring university students in school** some have no idea of a specific 'learning community', the others imagine it as a group for joint learning/joint further development and learning on the job/professionalization on the job. Their perceptions of 'cooperation' is marked with exchange, joint preparation, reflection, agreement, task sharing, consulting, organization, assistance, support, inspiration, exchange of expertise.

Teachers with mentoring experience were asked about the idea of a school 'learning community' in which students and teachers could be involved. All respondents were positive towards such a cooperative setting. The following motivations were listed: Possibility to learn from each other, support of diagnostic processes by several observers, an increase in reflection intensity, exchange, feedback, ideas and learning. One teacher with mentoring experience said:

"I think it would be great, because I think it is always possible to learn from each other. As students are usually not yet able to teach on their own, there are also great possibilities to support diagnostic processes by several observers in order to stimulate reflection in a deeper way."

From the perspective of Teacher Trainers

The group of **teacher trainers from the second and third phase of teacher education** we asked were quite precise on learning communities. They associate with is team meetings, conversations and collegial counselling among experts and peers, matching the context of further training and professionalization, see it related to school management, formed as project work, institutional teams. Some state, education authority obligates to work in such learning communities, some see the possibility to adapt it to the research context, integrated semester internship and in the higher education context. Some even knew about the HeadsUP project (https://sites.google.com/site/plcheadsup/plc).

Practical experiences and knowledge about structure, organization and objectives of PLCs were little in their group, some mentioned, according to organizational aspects, that it is a format of regular meetings on specific topics, fixed groups looking for topic or topic seeks group, a round of experts that cooperate self-organized, some institutionally initiated others group-initiated, with frequent meetings demand-driven.

Although about the structure a lot of probands said they didn't know much, some mentioned it was like peer observation comparable with a supervision team, the connection of theoretical knowledge + practical experiences + reflection. Some imagine PLCs in particular as format





within a further training with an input at a weekend class in presence, then task to practice, followed up by a next weekend class in presence. One person mentioned a speaker that has to be elected who further qualifies him/herself in a topic and then leads the group through this topic.

Objectives they talked about were: personal professionalization, to learn in one's own context, to promote conceptual work, to improve schools and learn together to reach a shared goal, define vocational and educational goals, exchange of information, clarification of facts. Also the idea of effectiveness was brought in in the sense of an effective implementation of an essential idea. Finally, some mentioned the objective to develop topics with professional expertise and the ensure transfer of knowledge.

From the perspective of Heads and Parents Representative

The **school principals'** (heads') perceptions of cooperation in schools is that cooperation takes place quite a lot in different contexts and at different levels. Successful is cooperation from their point of view if a cycle of joint planning, implementation and reflection takes place successfully several times a year. Structuring well is another main factor in successful cooperation.

On the concept of cooperation, the **parents representative** doesn't express herself.

1.3.2. What is being practiced in which level (university, school etc.)

A couple of questions in the questionnaire provided answers to the question: How and why do you cooperate during your studies?

From the perspective of students with a non-school education background

The reasons why **students with a non-school education background** cooperate are manifold. Nevertheless, most of the students' views refer to arranged cooperation occasions in the context of seminars. That also includes that they only cooperate if it is required and part of the student performance reviews (what they contribute during lessons, also presentations etc.). 10 students mainly stated the exchange of information as a reason for cooperation. 3 students defined this occasion more precisely by stating that they would exchange shortly when class is cancelled, on examination modalities, content of lectures and university dates in these groups of collaboration. Further reasons for cooperation activities were the exchange with their lecturers, learning in groups and developing networks. Aspects for cooperation which were mentioned less frequently were: no personal cooperation but medially via mail or WhatsApp (everybody sends his/her part), arrangements with the employer (speech therapy) and involvement in university activities (representatives of the students/AStA....).

From the perspective of student teachers

Most of the **student teachers** mentioned, when they were asked about their reasons to cooperate, that they often work together during the term not in the phases between terms, mainly in the class arrangements. Equally, they stated that they collaborate when it comes to the exchange of information. Presentations and work assignments for seminars and short-term cooperation within learning groups were defined by 6 persons, 4 listed that they were not cooperating. The following statements were only made rarely: exam preparation; exchange work material; arrangements with lecturers/employees and cooperation to eliminate misunderstandings. One student states:

"I cooperate with fellow students to learn by exchange and to motivate and support each other, with lecturers in order to profit from their knowledge and other things or with friends to have a balance to my studies."





From the perspective of Teachers with/without Mentoring

Mentors and teachers without mentoring role pointed out slightly different ideas on where and what for students should be involved in school cooperation/communication during their internship. They picture that they drew is rather a form of participation than equally cooperation, it refers to: personal conversations, participation in conferences (class conferences, specialist conferences, ...) and in parent-teacher talks/student talks. Some mentioned that more cooperation/participation would be nicer and they should take part more in conferences and consultations. Teachers without mentoring role added next to conferences: class teams, school development team, multi-professional team or evaluation.

Mentors that were asked for issues of cooperation named reflections on different methods/the concept that is carried out at the particular school, reflection on the teaching sequences (method, content, structure, teacher personality) or consultation before the lesson and subsequent reflection, school organization and school rules. A comment on the subject of cooperation was: dissemination of the concept that is carried out at the particular school and passing on the theory behind the school concept.

One teacher brought in the idea that cooperation can be organized by heads and school authorities or by colleagues that are involved in leadership. Also self-organized cooperation they mentioned. Asked about the structure some reported that there is no real structure, 4-6 meetings a year, 2 weekly, in some minutes are taken which they don't experience as very effective.

Goals for the students mentioned are adapting the all-day schooling concept to current requirements (administrative regulations), evaluation, lesson preparation and coordination between colleagues, relief and advice for the head, talking and complaining with the same that was before and now new results.

The topics that was named for cooperation throughout the interviews were whole day schooling, financial means or school organization, documentation on various school tasks, the specific teaching content and inclusion, finally, all that is of concern to the school and the classes, problems with students.

As a reasons for participation of students the mentors named are the interest in the further development of the school and one's own teaching, students like to work in a team and the fact that some things simply "have to be done".

From the perspective of Teachers Trainers

The view **teacher trainers from second and third phase** have on cooperation activities in schools meets the others in the idea of class related and overall school development that can be accomplished that way and to work on projects (e.g. media education plan). Also planning together (e.g. preparation of commonly applied tests) and exchanging information and material is in their sight. Additionally, they mention cooperation with external partners and name forms like joint class leadership, class conference, pedagogical days. In this group the school culture as an important background of good work was mentioned.

The **lecturers from university** who were asked how and why students in their classes cooperate mentioned reasons such as preparation for exams or presentations and working on group assignments they contribute with in the specific session. The collaboration was also mentioned as to take place in the integrated semester internship. In the formulations of the lecturers, the character of the cooperation appears as an exchange of experiences, a dialogue for mutual support, a division of labor, to develop knowledge together, to deepen issues and to work problem-oriented, also to find ideas together and to share their common prior





knowledge. It becomes clear that students often get into cooperation because the seminar leaders require it. Mutual exchange by two partners, group assignments, peer feedback or murmur groups are mentioned as specific formats of learning related cooperation.

From the perspective of Heads and Parents Representative

The parent we asked sees the teachers cooperate for planning joined activities such as graduation trips or because of shared responsibility for the students of a class. She did not have much more insight into the teaching cooperation besides this.

The heads were specifically asked about possible cooperation formats between mentors and student teachers or PLC like collaboration. They find it a good idea worth following but also knew it doesn't take place, yet. They knew though, that at the training seminar (second phase consulting is practiced in which the student teachers -plan, run and reflect lessons together with their mentors but rather with the mentors as supervisors.

One head mentioned that at the particular school they invest in teams from the same class level and teams from the same school subject.

We also asked the heads on ways to transfer knowledge into the cooperating groups at their schools. Some reported that the members of the group bring in information after they have attended further training, here the format of Lesson Studies was named. They benefit, so their point of view, from the expertise of colleagues and literature studies, theoretical papers, practical examples etc. External partners were seldom invited. One school sometimes uses data, an exception was a group that reflects on the national and regional tests (VERA group). Sometimes a consultant provided from school authority is asked in or sometimes they cooperate with other schools for new learning. One head mentioned that they collect information by using digitals tools at the particular school.

1.3.3. Benefits of cooperation/working in PLCs

The information on benefits was also drawn out of additional questions like "What are the results of this cooperation and what do you think could still be possible?" and "What added value do you see in addition to the actual objective in school cooperation?"

From the perspective of Students with a non-school education background

Positive experiences that the **students of non-school education** drew from their collaborations were mainly aspects concerning the division of labor and thus save time. 4 explained that they gain advantageous experiences in settings that were characterized by sympathy. The added value of joint work through the enrichment of new findings was also frequently highlighted. The potential of generating ideas in a team, mutual motivation and the exchange of experience were occasionally reflected in the answers. One student answers as follows:

"In general, cooperation has ALWAYS made sense to me so far, because either a good exchange of information or a good cooperation has taken place. But a reflective approach to cooperation (as we learned during the current seminar) helps me to recognize my own strengths and weaknesses and to use them more accordingly in future cooperative activities"

When asked what the results of the cooperation were, most students replied that they had jointly delivered a seminar performance. However, only half of the students indicated that the collaborative form improved their performance. These answers were combined with the idea to achieve goals together and make new friends. In addition, fun, greater learning success,





exchange of information and knowledge about who will be a competent cooperation partner in the future were named.

From the perspective of Student Teachers

Some of the **student teachers** stated that they made positive experiences during cooperative activities within their studies. Nevertheless, the frequency of the information was low (3 answers each): learning is fun, new knowledge, great support and joint elaboration makes it easier and saves time. They also named the following points (single nominations): exchange of experience; information from other students (omission of seminar, modalities of exams ...) and in case of illness, passing on seminar-relevant information. When asked what the results of the cooperation were, most student teachers replied that they earned credits, gained better academic performance and validate their own learning progress. Two student teachers commented on the results of cooperative processes that they would never work with other students again. Likewise, one person said that the study goal had never been achieved in his/her previous collaborations. The following experiences were expressed only once: greater learning outcomes; motivation; deeper understanding and faster solution finding.

From the perspective of Teachers with/without Mentoring

More positive are the roundups by the **mentor teachers** when working with students during the internship. Benefits for themselves they see in getting to know current "trends" in the (subject)didactics taught at university. They gain new ideas such as journal entries, worksheets, webpages, new media, new methods and innovative teaching sequences. Also they see the chance to learn about themselves by students observing them in class and then giving feedback.

As benefits of the cooperation for student teachers they make out classroom management and how relationships to the students can be built up. Also they figure they learn better how to deal with everyday problems and how to reduce the complexity, address learning problems, learn about different methods in the field of individualization and differentiation as much as cooperative methods. Other aspects were introduced like learning on organization, parent-teacher talks and consultation. Finally, aspects referring to issues out of the classroom were mentioned like overcoming fears or sharpening the self-image as a teacher, dealing with stress, developing a new understanding in teaching with a wide range of tasks (more than preparation and delivery of lessons).

Additional benefits the **teachers** (we cannot detect mentors or not) see in cooperation are gaining knowledge about attitudes/activities of colleagues and being socially involved. Again, there were some who didn't see an extra benefit in cooperation but regard it as something that needs to be done:

"Cooperation helps me to gain knowledge about attitudes/activities of my colleagues. But to be honest partly none, but I know that it has to be done. In general, I would not necessarily describe the work in school committees as a learning community."

From the perspective of Teachers Trainers

The potentials that **teacher trainers of second and third phase** see in cooperation at school and especially in the format of PLCs are more extensive. They see an enormous gain because of an optimal use of resources, transfer, multiplication, increased knowledge, skills and competencies development, finally to improve the quality level of education. Then they see the chance to qualify in selected fields, optimize, get feedback, better use of different approaches and perspectives, enrichment through exchange. Comparable to the students they report of saving time and increased motivation through self-chosen topics and sustainable





relations. Few teacher trainers see it as an opportunity for closer connection between practice and theory, promotion of mutual understanding, research incentives. One person criticised that expertise is missing and too much "knowledge gained by experience".

Cooperation in the mode of PLCs is also connected with the idea of a starting point for school development (par excellence) and seen to be more valuable than traditional exchange at conferences. PLC like cooperation provides the potential for more effective school and teaching development, but it should not be practiced on a voluntary basis. PLC like cooperation is seen with the aspect of sustainability and learning groups that work productively on a long-term basis. Finally, the idea of relief and protection for individuals by being connected to a group and to group knowledge was brought in.

University lecturers see the meaning of this cooperation in the idea that students should develop communication and cooperation skills as well as social skills. In addition, group work is a methodical variation that should activate during a session. One other idea is to secure good results by the control of the cooperating partners. It is assumed that in the student teachers' cooperation there is security and thus a space to try out being creative. Some also see that the student teachers complement one another well. They only partially believe that students themselves experience cooperation as an enrichment.

Since the lecturers surveyed all school practice, they were also asked about specific forms of cooperation taking place there. They recalled peer review procedures, group work to develop new content and for presentations, for smaller research projects and projects for teaching-related development. They see the possibility of gaining through joint task completion, reflection, mutual feedback, deepening knowledge, developing content and mutual advice. There is also learning to teach in a team as rational for cooperation.

From the perspective of Heads and Parents Representative

The parent we asked said, based on her own professional experience, she could imagine as reason for cooperation among teachers that the exchange is helpful in several ways: to secure oneself, to make an appropriate decision, not to be alone with difficult questions, to get a second perspective on issues. One idea that did not come up in the other groups was that teacher cooperation is a chance for pupils to turn to the person with whom one gets along better and to have a choice on the professionals they turn to.

The heads see the value in cooperation and especially in the PLC like constellations that it can make work easier. And they observed that cooperation supports developing school quality and contributes to the teachers' health. One talks about effectiveness and the use of individual potential, one who has tried out PLC work mentioned that she cannot imagine it to be built up in schools at the moment, although altogether she estimates the highly structured form of cooperation well and thinks that this contributes significantly to a quality-oriented success.

1.3.4. Obstacles/difficulties of cooperation/working in PLCs

In the questionnaires to the different groups obstacles were not addressed directly but covered by the questions on their view on and their experience with cooperation in general. Thus we have gathered information on difficulties that mainly were related to the own daily practice, not all on the situation of student teachers' cooperation (except from the student teachers themselves).

From the perspective of Student Teachers

The **students from non-school education** answered the question about negative experiences made in the context of student cooperation in a differentiated way. As strongly negative were perceived: an imbalance in the division of work and the lack of commitment or reliability by





some group members and the structural conditions at university. The following points were also mentioned quite often: misunderstandings with cooperation partners, learning community has not worked (different summaries/ knowledge levels), digressing, reason for cooperation got lost. A lack of response from the school they do their internship at, appointments are not kept, finding dates is difficult, and insecurity/shyness (when the group is new) were mentioned also. There is a wide range of perspectives on the inhibiting factors that hinder learning in groups to cooperate well. Commonly stated were social/private problems like friendships because quick distraction can occur, different ways of thinking, group size, disinterest of members and compulsory cooperation. Some interviewees indicated the distraction of mobile phones, lack of communication skills, missing equipment (laptop, books, literature). Some pointed out that individual self-learning was more useful.

Regarding the difficulties and obstacles in cooperative settings, the majority of the **student teachers** (six mentions each) also reported that individual self-learning was more effectively and that cooperation with friends leads to distraction. Other obstacles to cooperation were the same that the other student group had mentioned: mobile phones, disinterest, digressing, group size (no more than three, not too big, not too many people). They also brought in social/private problems, a lack of communication skills, disputes, lack of motivation, seriousness and a lack of reliability (agreements, consciousness in task processing). Also they reported that an inadequate organizational structures hinder cooperation and finding dates/time. One student teacher said:

"Learning groups can be very motivating, but they can also be demotivating if you critically compare your own level of knowledge with that of others. Trying to cooperate too much in a learning group can also lead to negative effects, e.g. when there are too many people in the group and it is challenging to concentrate. Sometimes it is problematic in learning groups to remain objective and not to be distracted or distract others. If no common goal is set, it makes cooperation very ineffective."

From the perspective of Teachers with/without Mentoring

The mentor teachers were not asked directly about obstacles but indirectly we found reported insufficient time resources and the lack of support. Obstacles teachers are faced within the framework of cooperation at school are resistance from colleagues, time management, inability to cooperate, missing tolerance, unsatisfying achievement of goals in some groups, no structure, isolated actions, limited sustainability, no benefit for the classroom teaching and the experience that always the same people seem to get involved. One teacher describes it as follows:

"These abuses I experience daily in my college and they prevent real cooperation: time, inability to cooperate and the lack of tolerance."

From the perspective of Teachers Trainers

Teacher trainers of second and third phase refer to their employment as a teacher (which they usually are next to being a teacher trainer) and report critically on difficult aspects in school like delimitation, closed doors which means that a teacher only cares for his/her work in his/her class, often teachers act against each other or show different extents of commitment. In general, the cooperation is regulated very randomly and informally. They also report about negative experiences in the main conferences that take too long for little results it produces. Whereas cooperation on the same level of class is more often practiced, cooperation across class levels is missing.

Lecturers from university mentioned some critical points when asked about the nature of the cooperation. They refer to the students. They perceive that the organization of work is





sometimes difficult in terms of scheduling and grouping. Climatically, they find that the students treat each other in a friendly manner and that sympathy and being gathered by sympathy plays a key role in the cooperation. They see an informal exchange partly not very pragmatic, but also with some people who are more reluctant to communicate. They complain about little consultation and commitment among the students and find that some groups quickly fall into an everyday pattern of chats. Mandatory cooperation is carried out with little commitment they criticise. One person also mentioned that some students could not concentrate well.

From the perspective of Heads and Parents Representative

The parent we asked had the impression that young people tend to cooperate a lot and when asked why, they would report that they are well experienced because of their former school experiences. In addition, she thinks that smaller group situations create more familiar spaces than large groups where rather difficult aspects will be disclosed like not to show weakness. However, she also considered that personal courage is required and it depends on the person how open one is in such a group to express personal things. T be able to voluntarily enter into the cooperation is considered as very important, in order to be open to the suggestions of the others and to have confidence that criticism is handled with care. The parents representative values teacher cooperation in class and beyond as an approach to diversity and a chance that pupils get more interesting aspects to know by two different experts.

In the **heads**' interviews no information to this issue was given.

1.3.5. Needs/Wishes for future to improve learning opportunities in cooperation or PLC-work

At the end of each questionnaire we asked what could be done better and what the probands see as chance to improve in cooperation. We also referred to better learning in the group.

From the perspective of Student Teachers

Students of Speech Therapy, Environmental Education and Multilingualism mentioned conditions that could improve cooperation including a clear definition of the objectives of cooperation, more professional communication, better time management and a fair distribution of tasks.

With regard to the reflection of their own cooperative behaviour, the students expressed themselves critically. These developing areas were frequently identified. Thus know they could do better in behalf of their commitment/motivation, trust in partners, do better planning and preparation, assume roles and express their expectations clearly.

According to the idea of better learning, we got answers that were not specifically related to the role of learning, but rather to general conditions that are supportive for cooperation processes. Common activity, exchange of material and information, multi-perspective knowledge, similar level of knowledge, division of labour, neutral space. Also, sympathy and a relaxed relationship were often quoted.

The **student teachers** expressed comparable needs or options for a more successful cooperation like better organization/preparation, enhanced communication skills, active involvement (commitment), equitable division of tasks, assembling the group independently and a pleasant group size. They also reported about bigger chances when group members show more engagement/motivation and willingness for discussion, express their expectations more clearly, are more considerate and have more trust in their cooperation partners. Even silence was mentioned as need. Altogether, the idea to improve the attitude towards cooperation in general was named. Finally, it was suggested to use time more effectively (time management)





with a smart time schedule and an overall agreement. The student teachers see the need to train effective cooperation practices and to be more focused on the learning content. A student can be quoted as follows:

"If I think about it carefully, I can count numerous recommendations and wishes: for example, goals should be made more binding, time limitation is helpful to promote concentration and motivation, the number of participants should be reduced to a constructive level (several smaller groups), communication should be objective rather than emotional, everyone should contribute to achieving the common goal and everyone should be treated equally, even though it can be helpful to select a "moderator" to facilitate the process, e.g. one who documents and reproduces what has already been said."

From the perspective of Teachers with/without Mentoring

Because the interviewed **mentor teachers** had little idea of the PLC concept, they were asked how they would rate the idea of a 'learning community' in which students and teachers were both involved. They mentioned chances like the possibility to learn from each other and to support diagnostic processes by several observers. They see the chance of better reflection, exchange, feedback and learning because of manifold ideas and diverse perspectives that can be collected. Again, they suspect time to be too little. The needs they mentioned referring to the teachers' side are appreciation, sustainability, professional organization, open minded colleagues and everyone participates.

The wishes **teacher trainers of the second and third phase** have for better cooperation in the development towards PLCs concern structures like class teams/joint class leadership and team structures and the institutionalization of PLC which should be disseminated more. Also resources like time, space, material, literature, finances were mentioned. Also the workhours are important like cooperation time integrated into working time for that not only the engaged colleagues participate and that there is an obligation to work at school (not at home) and be present. Better networking and the reduction of competitive thinking were seen to be important, also procedures like organizational development, project development and management. Expectations go beyond the single school with an expanding networks (university-seminar-school) and easy access to literature, experts and peers.

University lecturers see the need for development of cooperation referring to the students in terms of raising the attitude towards cooperation and recognizing the importance. Also they think there is a need to improve the internal work organization, reflectivity and commitment. Unlike the other groups, they also mention the improvement of cooperation via digital media and the need to shape learning communities within each of the three education and training phases in the professionalization of teachers. They also see the need for support by providing suitable rooms, the ability to control the joining and proceeding more independently, more possibilities in the examination requirements towards assignments delivered in cooperation, and the idea of establishing PLGs throughout the entire teacher education program at university. It was mentioned once to strengthen the situated learning approach.

For a more intensive learning-related cooperation, university lecturers would invest in cross-semester research seminars, accountability via a free workload, reflection tasks and regular instruction in small groups, long-term teams and tandem partners among the students. With regard to results, they emphasize better use of the results of the group work in further steps of the seminar so they are of real importance and link the seminar performance (plus grades) with it. They see that direct advice could help the student groups, also through mentors, thematic inputs, orientation aids such as guidelines, models for better structuring, practical exercises





and sources for content learning, conversation skills training and clarification on the use of results. Last but not least they know that they should be at help at any time:

"To establish effective cooperation structures in the sense of a PLG, students would not only need suitable structures and framework conditions, but also training in conversation (including open question formats), guidelines, models, protocols and feedback on their group processes from both lecturers and learners."

From the perspective of Heads and Parents Representative

When **the parent representative** we asked, suggested teacher cooperation in class and beyond to increases diverse perspectives and thus pupils would get more interesting aspects to learn from she added that in this case the mix of subject, age or gender should be considered.

The heads were asked on a vision of PLCs consisting of mentors and student teachers. Some liked the idea a lot and the mentioned benefit is that reflection of the mentor's own teaching practice through external feedback. A positive exchange is regarded as necessary. So it is rather a positive reaction on the idea than concrete details what to serve for its development that the heads show.

1.4. Summary and Overall Discussion

Asking to what extent the people who work in and around school have opportunities to develop their skills in the service of life-long professional learning, the data analyses shows differences between given options and potential options. Also we see differences in practices at the different institutions as well as quality and quantity of cooperation.

First of all, it becomes clear that cooperation is given an overall positive connotation by people who already work at school. Cooperation takes place in a broad variety of ways and methods and throughout the groups there are quite important reasons compiled why cooperation should be practiced on regular basis. This includes mutual assistance, exchange of information as well as learning impulses that can be obtained through the knowledge of others. The opportunity to benefit in cooperation for one's own learning is more rarely expressed than the other objections. At the same time, there is criticism by the school practitioners that not all teachers contribute or assess this potential equally and that not all of them participate in cooperation as it should be. A similar critique was expressed on the cooperative practices of students at university.

Interestingly, the teachers to be, the students at the university, have large opportunities to practice cooperation in a variety of forms, but their appreciation of it is quite littler and they themselves are quite critical on the quality of the cooperation, even more than those of school practitioners looking at them. The criticism of the quality identifies many factors and there is less enthusiasm on students' cooperation than from those who train them. Also it can be stated that within the quite big student group we asked only few show differentiated perspectives on quality aspects in the cooperative settings. We deduce that most of the students need to be trained on good cooperative practice as much as to develop a distinct analytic view on those processes in order to run them effectively.

The list of criticisms why cooperative work that students practice fails is long. On the one hand, there are reasons like external control that makes commitment and conviction small, but there is also a lack of competence and discipline on the side of the students. The numerous critical aspects about their cooperation practices that the students express themselves are also detected by the teachers working with them. An important additional point is that the benefit of the results of the cooperation for the seminar as well as for the exams is not given consistently or may not always be recognized by the students.





It can be assumed that, especially in the classes at university, despite their experience with cooperative practices they know from school, not all students benefit as much from one another as teachers express they would. Possibly, practitioners experience the other colleagues as more valuable partners because they have a lot of competence at one's disposal to serve the others with whereas students at university all are mainly learners and rather serve in behalf of a good climate in the university studies than in getting academically better.

Those interview partners who have already made positive experience on cooperation or who systematically reflect on it (because they teach about it) see the potential for development, for the single school in general as much as for the single person, but at the same time they are aware of the requirements on its quality that must be met. Interestingly, the fact that cooperation can and should ultimately serve the children and young people in school is most clearly emphasized by the parent representative.

Few of those asked in the survey are familiar with the specific form of Professional Learning Community but it can be assumed that there may be some experience with such a specific collaboration, which is not explicitly associated with this format. Against the background of the information gained it is important to serve the development of competencies for successful cooperation and to further highlight the idea in the school practice and connect students with their mentors. Altogether, this specific kind of PLC was emphasised as highly suitable format for mutual learning bridging theory and practice. However, no experience on this is available, yet.

The PLC concept, with all its constituent facets, is not yet explicitly present in the minds of the students of the universities of education in Weingarten and only some of the interviewed German teacher trainers. Thus, new development and research efforts in the field of education in Germany show the tendency to implement the concept more and more in university teacher training and in the context of internship. The first attempts to integrate the PLC work at the university level (scientifically accompanied) are currently being carried out at the Westfälische Wilhelms-Universität in Münster (Feldmann, 2020). This project within the research initiative "Qualitätsoffensive Lehrerbildung" launched by the Federal Government (already mentioned in the introduction). The design of the course for the student in the Master of Education program is based on a cooperative basic structure of the PLCs and at the same time it focuses relevant aspects of collegial cooperation in the teaching profession. In the sense of a pedagogical double-decker, the students are being offered to develop their competences with regard to their own cooperation skills and, in addition, get to know the PLC format as an instrument for life-long professionalization. The first results, based on the qualitative evaluation, draw a positive and promising picture. According to Feldmann (2020) it can be stated that the PLC work in the framework of the university seminar has a positive effect on further development of personal didactics, better work results are achieved through the cooperative development of lessons, and the student teachers experience learning from and with each other in the sense of co-construction of knowledge. Negative aspects, which students associate with working in a PLC, reflect the results, which were described as obstacles to cooperation by the students of our sampling above: time-consuming, additional work, a great deal of organizational effort and the need to make more precise arrangements.

Another scientific project of the above-mentioned research initiative deals with the establishment of PLCs as a cross-institutional format connecting school and university (Dollinger, 2020). The aim of the joint work is to optimize the concept of "Lernentwicklungsgespräche (oral performance feedback between student, teacher and parents with the aim of jointly discussing the pupil's learning development). In her summary Dollinger emphasises the added value of a multi-professional PLC work for all participants and that





teachers are given the opportunity to enhance their practice with scientific and profound subject-related didactic support. The university partners at the same time receive new insights into the actual professional practice. Furthermore, the jointly developed materials and methods are integrated into university teaching (ibid). In addition to this study, other concepts of didactic education in higher education (e.g. collaborative problem-based learning; Berger, 2020) or a PLC related design of the training concept in the second phase of teacher training (Funke-Terbart, 2020 are currently being explored. Related to the findings above they appear as first well needed initiatives in teacher education.

1.5. Implications and Suggestions

The conclusion drawn from the data analyses above is that in no field in the education system cooperation is already significantly effectively and efficiently practiced. The problems the groups face cooperating themselves within their community are quite the same – the hit competencies, commitment and resources. The more experienced people of the sampling like teachers and teacher educators are more optimistic on the chances that lie within cooperative practices compared to the students that obviously mostly like cooperating but do not mention the benefit equally positive. Since the later work situation bases on a lot of cooperative settings and soon to be teachers should be well trained and confident with it, teacher education already in the first phase is asked to shape up when it comes to use cooperative formats.

They should not only be integrated in the university classes but be attended and made sure they really enrich the seminars. That requires support in practice and with a meta-learning perspective. If one assumes that cooperation will later be a central task in the teaching profession (this is also explicit in the teacher education standards in Germany), the university has to prepare students thoroughly accordingly to that target. The second phase of teacher training has already taken on this task by practicing the format of Professional Learning Communities; universities could prepare the considerate practice.

The initial situation also makes it clear that also in school practice it is useful to build up skills for effective and efficient cooperation and that the often informally practiced cooperation can learn from more systematically approaches. There is the chance and some openness to try out new forms, but the lack of time and resources remains critical. In the end though it is also a challenge on good practice.

Although school development is not primarily a task of university to fulfil investing in learning oriented communities between mentors and students in phases of internship can be a contribution to it.

References

Dollinger, S. (2020). Einblick in eine Professionelle Lerngemeinschaft zwischen Wissenschaft und Praxis und ihre Arbeit zu Lernentwicklungsgesprächen. In K. Kansteiner, C. Stamann, C. Buhren & P. Theurl (Hrsg.), Professionelle Lerngemeinschaften als Entwicklungsinstrument im Bildungswesen (S. 212-220). Weinheim: Beltz Juventa.

Feldmann, J. (2019). Professionelle Lerngemeinschaften in der universitären Lehrer*innenbildung – eine Vorbereitung auf die unterrichts- bezogene Kooperation im Schulalltag? In K. Kansteiner, C. Stamann, C. Buhren & P. Theurl (Hrsg.), Professionelle Lerngemeinschaften als Entwicklungsinstrument im Bildungswesen (S. 240-251). Weinheim: Beltz Juventa.

Funke-Terbart, O. (2020). Professionelle Lerngemeinschaften in der zweiten Phase der Lehramtsausbildung – Konzept, Erfahrungen, Perspektiven. In K. Kansteiner, C. Stamann, C.





Buhren & P. Theurl (Hrsg.), Professionelle Lerngemeinschaften als Entwicklungsinstrument im Bildungswesen (S. 261-273). Weinheim: Beltz Juventa.



