**Team Teaching during Field Experiences in Teacher Education**

**Exploring the Assistant Teaching Model**

Abstract

Teacher education institutes are in search of alternative models of field experiences, inspired by collaborative learning. This study examines team teaching. We focus upon the assistant teaching model, in which the student teacher assists the mentor during teaching. We investigate which assisting activities student teachers prefer, how student teachers and mentors experience these activities and the conditions for implementation they foresee. Data were gathered using activity reports, reflective documents and questionnaires. Results show that the preferred assisting activities mainly consist of guiding pupils during individual and team work and of teaching a part of a lesson in front of an entire class group. The assistant teaching model has both advantages (professional growth,…) and disadvantages (feelings of unfamiliarity,…) for the student teacher. Advantages and disadvantages have also been reported for mentors (support, high workload,…) and pupils (support, confusion,…). Finally, several conditions for successful implementation of the assistant teacher model are discussed.

*Keywords*: team teaching, teacher education, field experiences, student teacher, mentor

Student teachers' field experiences are an essential part of teacher education (Kyndt, Donche, Gijbels, & Van Petegem, 2014). In most teacher education programmes, the underlying concept is the same: the student teacher works as a single trainee with an experienced teacher, the mentor (Dang, 2017; Sorensen, 2014). First, he observes a number of lessons given by the mentor, before receiving the responsibility to teach individually. The mentor then observes and coaches (Bacharach, Heck, & Dahlberg, 2010; Birrell & Bullough, 2005; Henderson, Beach, & Famiano, 2009). Teacher education institutes are in search of alternative models of field experiences, inspired by cooperative and collaborative learning, in order to facilitate a gradual transition to self-regulated teaching (i.e. to independently plan, monitor, and assess their teaching) (Gardiner & Robinson, 2009; Guise, Habib, Thiesen, & Robbins, 2017; Nokes, Bullough, Egan, Birrell, & Hansen, 2008; Zeichner, 2002). Team teaching is an example of such an alternative model.

Team teaching refers to two or more teachers working together 'in some level of collaboration in the planning, delivery, and/or evaluation of a course' (Baeten & Simons, 2014). Synonyms for team teaching are co-teaching, cooperative teaching and collaborative teaching (Carpenter, Crawford, & Walden, 2007; Dugan & Letterman, 2008; Welch, 2002).

Team teaching can be applied by two teachers, by a teacher and a special education teacher, by two student teachers, by a student teacher and his mentor, etc. Recent studies show that team teaching during student teachers' field experiences usually takes place between student teachers (Baeten &

Simons, 2014) and that the role of the mentor as a team teacher has rarely been

reported (Ambrosetti & Dekkers, 2010; Clarke, Triggs & Nielsen, 2014). A

systematic literature search, resulting in a narrative review, revealed only

twelve studies reporting on advantages, disadvantages and conditions for

implementation of team teaching between student teachers and mentors during

field experiences in primary and secondary education (Baeten & Simons,

2016). In an attempt to contribute to the current literature, the present study

focuses on team teaching between student teachers and their mentor.

According to the level of collaboration between the team teaching partners,

five models of team teaching can be distinguished (Baeten & Simons, 2014;

Wynn & Komrey, 2005). Table 1 gives an overview of these five models.

[Table 1 near here.]

This study focuses on the assistant teaching model. In the assistant

teaching model one teacher has full responsibility for the delivery of the

course. He takes the lead, while the other teacher becomes an assistant or

'back-up' teacher (Smith, 2004) who, for instance, circulates through the

classroom providing support to pupils when necessary (Al-Saaideh, 2010;

Badiali & Titus, 2010; Cook & Friend, 1995; Nevin et al., 2009). Other

assisting activities mentioned in the literature are: ensuring that the pupils

continue to concentrate, evaluating tasks, ensuring that the materials necessary

for teaching a particular lesson are present (Smith, 2004), paraphrasing the

explanation given by the teacher, demonstrating how pupils can take notes

(Nevin et al., 2009), or offering follow-up activities related to the learning

contents taught by the main teacher (Al-Saaideh, 2010). The assistant teaching model requires collaborative planning in advance to enable the assistant teacher to anticipate any potential difficulties that the pupils may experience (Badiali & Titus, 2010). Synonyms of the assistant teaching model are 'one teaching, one assisting' (Cook & Friend, 1995), 'one teach, one guide' (Badiali & Titus, 2010), 'tandem model' (Smith, 2004), 'monitoring teacher' (Al-Saaideh, 2010), and 'supportive (co-)teaching' (Nevin et al., 2009; Thousand, Villa, & Nevin, 2006). Advantages of the assistant teaching model are that it is relatively easy to implement because it does not demand far-reaching adaptations in the mentoring approach. Moreover, by taking on the role of an assistant teacher, the student teacher gradually experiences the teacher's responsibilities. He or she can start by implementing small assisting activities that do not require a great deal of teaching experience. During this research authentic settings were created as part of teacher training to enable us to investigate the experiences of the stakeholders.

A recent review (Baeten & Simons, 2016) showed that research on team teaching between student teachers and mentors is scarce. A systematic literature search on the assistant teaching model between student teachers and mentors revealed only three studies: Eick, Ware, & Jones, 2004 and Eick & Dias, 2005. In these studies, the assistant teaching model has been applied in the field of teaching sciences. In the study of Eick et al. (2003), the student teacher first observed while the mentor was teaching and then subsequently assisted the mentor during instruction, mainly by supporting the mentor and by

guiding small groups of individual pupils. Afterwards, the roles were alternated, with the student teacher taking responsibility for the delivery of the course while the mentor assisted. Assisting activities of the mentor consisted of answering questions the student teacher could not answer, giving additional explanation and intervening when pupils were misbehaving. In the studies of Eick et al. (2004) and Eick and Dias (2005), two student teachers were assigned together to a mentor. First, both student teachers assisted the mentor with the delivery of the course. Next, one student teacher took the lead for the delivery of the course, while the other student teacher and the mentor assisted. The mentor intervention consisted of adding any information the student teacher forgot, intervening when pupils were misbehaving, emphasizing the learning content, carefully correcting mistakes made by the student teacher, answering questions the student teacher could not answer, etc. Activities of the assisting student teacher were supervising the task-oriented behaviour of the pupils, supporting pupils who required help, taking notes which could be used as feedback for the teaching student teacher.

The studies of Eick et al., 2003 and Eick & Dias, 2005 concluded that the assistant teaching model has many advantages for the student teacher. Due to the presence of the assisting mentor, the student teacher felt comfortable and supported in the teaching task. Furthermore, this support contributed to the professional growth of the student teacher. As the support was provided when needed during the course, instead of after the course, the student teacher could learn on the spot. While the student teacher was assisting the mentor,

opportunities for higher observation arose, enabling the student teacher to

learn to differentiate between effective and non-effective ways of teaching

(Eick et al., 2003). These experiences enabled the student teacher to reflect

more critically and profoundly on the delivery of the course (Eick et al., 2003;

Eick & Dias, 2005). Professional growth was also established because the

student teacher managed to get a better understanding of the pupils (Eick &

Dias, 2005). Finally, student teachers reported more self-confidence regarding

teaching, thanks to the presence of the mentor (Eick et al., 2003). A specific

aspect of the study of Eick et al. (2003) was that the student teacher could

make use of the mentor's class preparation which enabled him/her to focus

more on the learning contents and activities as well as on the delivery of the

course itself. Mentors also perceived this as an advantage, because they could

adhere to their own class preparation/planning.

  The studies of Eick et al. (2003, 2004) and Eick and Dias (2005) show

that student teachers can benefit from the assistant teaching model. This

indicates that the model can be promising for field experiences in teacher

education. However, a number of important challenges and unsolved questions

related to this scarcely investigated teacher training approach, still remain. An

important element in the success of the assistant teaching model is the mutual

communication between the mentor and the student teacher(s). For instance

when adjustments of the course planning occur because of changes in the

timetable, deliberation between both parties is required. In the study of Eick &

Dias (2005) student teacher(s) experienced this as extremely frustrating. In

addition student teachers and mentors will have to be able to agree on which tasks will be done by which party. This is not always easy because student teachers may have other prior conceptions on teaching than their mentors, which can lead to negative learning outcomes (Gijbels, Kyndt, Peeters & Schelfhout, 2016). Another important mediating variable is the degree to which both parties are open for cooperative interaction and dispose of collaborative competence (Kyndt, Donche, Gijbels, & Van Petegem, 2014). These are aspects of a broader, but essential student teacher – mentor relation, which will be very influential in shaping these teaching practice approaches (Schelfhout, Dochy, Janssens, Struyven, Gielen & Sierens, 2006). Because this research focus is relatively new and, given that for teacher education institutes aiming to implement this model, it is important to have an overview of (1) possible assisting teaching activities when implementing the assistant teacher model for other subjects/disciplines other than sciences, and of (2) advantages to value and disadvantages to warn for as well as of conditions for a successful implementation, the research questions central to this study are:

RQ1: Which assisting activities do student teachers prefer to perform in the assistant teaching model?

RQ2: Which advantages and disadvantages do student teachers and mentors experience when implementing the assistant teaching model?

RQ3: Which conditions do student teachers and mentors evaluate as critical in order to successfully implement the assistant teaching model during field experiences?

## 1. Methodology

### 1.1 Respondents

This study was conducted in the teacher education programme of the University of Antwerp (Belgium). This one-year programme prepares Master degree students to become secondary school teachers. As officially determined by decree, the teacher education programme encompasses 60 ECTS credits: 30 credits of theory and 30 credits of practice. Student teachers choose their teaching subject based on the Master degree they obtained.

Participants consisted of 18 student teachers (3 males and 15 females), with different teaching subjects: biology (n=2), chemistry (n=2), economics (n=2), French (n=5), behavioural sciences (n=3), Dutch (n=2) and mathematics (n=2). Participation was voluntary. Student teachers were assigned in pairs. Nine mentors, each supervising two student teachers, were involved in the study.

### 1.2 Procedure

The field experiences consisted of two parts: the orientation phase (first semester) and the growth phase (second semester). During the orientation phase, student teachers learned about the wide spectrum of activities inherent to the teaching profession (micro-, meso- and macro level). They observed four lessons given by the mentor and two lessons given by another student teacher. Each student teacher taught two lessons individually. During the growth phase, student teachers became their mentor's assistant

during four lessons. These four lessons formed the scope of this study. Afterwards, each student teacher taught 36 lessons individually.

During the 'assistance lessons' the mentor was responsible for the planning/preparation and evaluation of the lesson, while the student teacher participated/assisted. In this way, the student teacher was involved in different aspects of the teaching profession. Beforehand, and based on the literature review (Baeten & Simons, 2016), the following suggestions concerning the assisting activities were made to the student teachers and their mentor: provide individual guidance to the pupils during exercises, coach teamwork, give a short theoretical explanation, give feedback on a task or test, evaluate oral presentation(s), engage in class management activities i.e. ensure that pupils are attentive and task-oriented, prepare materials used during instruction). However, as these were mere suggestions, the mentor and student teachers were free to interpret the assistantship and select alternative assisting activities. If the student teacher needed to prepare a part of the lesson for the assisting activity, this was allowed. The goal was to create sufficient opportunity to implement the approach in a self-regulated way, and to be able to investigate different authentic assistant contexts which could emerge and to inquire about the reasons why the assistance relations were shaped in a specific way.

### *1.3 Research Instruments and Data Analyses*

To provide an answer to the three research questions, multiple research

instruments were used. Table 2 presents an overview and clarifies the link

between the selected instruments and the research questions.

[Table 2 near here.]

To gain insight into the selected assisting activities (RQ1), the student

teachers were asked to keep an *activity report*. They received a template

(Appendix 1) which they completed after each of the four lessons. The main

goal was to get an in-depth view of what exactly had been done as a self-

chosen implementation of teaching assistance, and then to compare this with

the experiences of the student teacher and mentor involved in the study (as

gleaned from the questionnaire).

These activity reports were analysed by a qualitative approach. To

ensure descriptive validity (Johnson, 1997), investigator triangulation was

applied. Two (main) researchers monitored the data collection and data

analysis. In a preliminary phase, the data were read by the 18 student teachers

involved in the study and also coded by them. Next, one (main) researcher (the

first author) performed an independent coding of the data in two steps to

ensure intra-rater reliability. The first step consisted of an explorative, detailed

analysis, to develop a coding scheme. In a second step, this coding scheme

was applied to all the reports using NVivo10 software. The unit of analysis

was every individual assisting activity (e.g., coaching teamwork, introducing a

course). Results were compared with the student teachers' findings.

Inconsistencies in coding were discussed with the second author to establish uniformity.

The experiences of the student teachers and their mentors (RQ2) and the conditions of successful implementation (RQ3) were collected using short *questionnaires* consisting of open-ended and closed-ended questions (Appendix 2 and 3), based on an extensive review study (Baeten & Simons, 2014). These questionnaires were completed after the four lessons of the assistant teaching model had been given.

The closed-ended questions were answered through a five-point Likert scale, with answer categories ranging from 1 (strongly disagree/very bad) to 5 (strongly agree/very good). These answers were analysed in a descriptive way through mean (M) and standard deviation (SD). If the mean was higher or equal to 3.5, the score was considered 'high'. If the mean was lower or equal to 2.5, the score was considered 'low'. If the mean ranged between 2.5 and 3.5, the score was considered neutral. The answers to the open-ended questions were analysed using a qualitative approach. Student teachers also wrote a *reflection document* (Appendix 4) about their experiences as an assistant teacher. These documents were also analysed qualitatively. The analyses took part in two phases. The first phase consisted of an explorative, detailed analysis of all open-ended questions and reflection documents, with the aim of developing a coding scheme. The advantages, disadvantages and conditions for successful implementation as reported in the literature (Baeten & Simons, 2014) were used as a conceptual framework. This framework was

refined and/or extended based on the data. In a second phase, this coding

scheme was applied to all open-ended questions and reflection documents,

using NVivo10 software.

## 2. Results

### *2.1 Which assisting activities do student teachers prefer to perform? (RQ1)*

Fourteen student teachers carried out assisting activities during the

mentor's regular lessons and then they handed in an activity report. Four

student teachers chose an alternative timing to complete their assisting

activities, namely during a daytrip with the pupils to the courthouse and during

a poetry day at school.

Taking the assisting activities undertaken during the regular lessons into

account, six different types of activities were identified:

- Guide pupils during teamwork, together with the mentor (n=11 student

  teachers);

- Teach a part of the lesson for the whole class group (n=11 student

  teachers): this activity includes several types of tasks i.e. give a (brief)

  introduction to the course, explain a theoretical content, give

  instructions regarding an assignment, explain or correct an exercise,

  supervise during a test;

- Guide pupils during individual work (n=9 student teachers);

- Offer practical support to the mentor (n=3 student teachers), for
  example using the cursor to show exercises on the interactive
  whiteboard;

- Teach a part of the lesson to a subgroup of the class (n=1);

- Evaluate individual pupils (n=1).

The type of activities varied greatly among the student teachers. Three
student teachers carried out the same activity during each of the four lessons.
The other student teachers varied their assisting activities between the lessons.
They performed two (n=3), three (n=5) or four (n=3) different activities during
the four lessons.

It is interesting to note that the four student teachers who chose an
alternative interpretation of teaching assistance as part of a more extensive
activity external to the normal lessons did so because they perceived – in
interaction with their mentors – that the lessons, as planned by their mentor,
offered limited possibilities for an assistant teacher. We will discuss this
further in light of the following research question.

### 2.2 How do student teachers and mentors experience the assistant teaching model (RQ2)?

First the experiences of the student teachers are described, followed by
the experiences of the mentors. In both groups, a distinction is made between
the advantages and disadvantages for each of the three actors involved in the
teaching process i.e. student teacher, mentor and pupils.

*2.2.1 Experiences reported by the student teachers.*

Student teachers gave a rather neutral answer to the general question

'How do you evaluate the assistance lessons?' (M=3.12 out of 5, SD=0.93) as

well as to the item 'The assistance lessons have an added value for field

experiences in teacher education.' (M=2.95 out of 5; SD=1.44). However, the

large SD reveals diverging opinions, indicating that student teachers

experienced both advantages and disadvantages during these lessons.

*a. Advantages for student teachers*. Table 3 shows that, based on the scores of

the closed-ended questions on the added value of the assistance lessons,

student teachers experienced professional growth: they felt more prepared to

teach individually and reported to have a better understanding of the

importance of collegiality (average scores ≥ 3.5). However, they did not feel

that these lessons improved their ability to reflect. Furthermore, they

experienced growth on a personal level, especially as far as the feeling of self-

confidence in front of a class was concerned.

[Table 3 near here.]

An analysis of the open-ended questions and the reflection documents

showed similar advantages for the student teacher, namely professional and

personal growth (see Table 4).

[Table 4 near here.]

All student teachers (N=18) reported experiencing professional growth.

The assistance lessons offered possibilities to learn about the teaching

profession, the school culture and to gradually become more involved in it

(n=12 student teachers). Moreover, these lessons provided an opportunity to become acquainted with the pupils (n=12) and the teaching style of the mentor (n=5). Professional growth was possible because the student teacher could observe the mentor simultaneously and could evaluate different aspects from his/her own perspective. This way, student teachers experienced teaching from very close by: '*Since you can teach together with the mentor, you learn a lot during the lessons. Otherwise you only can learn when the lesson is over, during the feedback and reflection afterwards*' (student teacher b). Furthermore, student teachers could use these lessons to directly implement suggestions and critical comments given by the mentor. This way, student teachers not only felt more prepared to teach individually, they also gained a better understanding of the importance of collegiality (as shown in Table 3): '*The mentor and yourself as a student teacher are on the same wavelength. You truly feel as if you are real colleagues. The feeling of being evaluated is far less present, you really feel as an equal*' (student teacher 0).

Besides professional growth, student teachers also experienced **personal growth** (n=10) (Table 4). Student teachers mostly refer to a growing self-confidence (n=9), for instance '*You get the opportunity to become familiar with the class group before you have to teach in front of them. This lowers the threshold; it takes away the insecurity that you experience before delivering your first lesson*' (student teacher d). One student also reported an increased motivation for teaching.

Although the student teachers evaluated the statements regarding

professional and emotional support rather neutrally (Table 3), the majority of

them (n=12) referred in the answers to the open-ended questions and in the

reflection documents (Table 4) to the **support** they experienced. They

considered the assistance lessons as a safe way to start their field experiences,

taking into account that, at that point, they did not yet have full responsibility

for the delivery of the course. There was still a mentor to rely on: '*During the*

*assistance lessons, I felt comfortable. I knew that I was not alone and that the*

*mentor still could intervene if necessary. This gave me a reassuring feeling.*'

(student teacher j).

***b. Disadvantages for student teachers.*** Besides advantages, student teachers

also reported disadvantages (Table 4). A majority of the student teachers

(n=13) reported a feeling of **unfamiliarity** with the role of assistant teacher.

Some student teachers experienced these lessons as rather strange and asked

themselves what their role exactly was. They felt as if they had limited input

during these lessons and, therefore, described their role as 'little helper',

'babysit' and 'slave'. Despite the fact that all student teachers recognized

professional growth to some degree, some student teachers (n=9) at the same

time also reported the opposite. These student teachers indicated to have

learned little regarding 'real teaching'. For example, they learned about

guiding pupils or class management, but not about the whole process of the

planning and delivery of a lesson. Student teachers who reported to have a

limited input in these lessons, also reported little learning gains. One student

teacher even admitted dozing off from time to time. Moreover, a few student

teachers argued that the assistance lessons were not a correct reflection of the

reality (n=2): '*Two persons teaching is not a realistic situation in real life*'

(student teacher n). They also added that problems regarding the mentor's time

management arose, leaving little or no time for the student teacher to do

anything (n=2); and that there was a significant difference between their own

teaching style and the mentor's (n=1).

*c. Advantages and disadvantages for mentors and pupils.* Besides advantages

and disadvantages for themselves, student teachers also reported advantages

and disadvantages for the mentors and the pupils. When asked if they had the

feeling they truly supported their mentor, the student teachers answered rather

neutrally (M=2.59 out of 5), but the opinions differed greatly (SD=1.33).

Analysis of the open-ended questions and reflection documents (Table 5)

showed that some student teachers had the feeling they truly supported their

mentor (n=8), for instance by answering the pupils' questions and by guiding

the pupils during exercises. Other student teachers (n=8) indicated being of no

support to their mentor. According to these student teachers, the mentor could

have given the lessons perfectly well without their assistance: '*I helped the

pupils with individual exercises, but I had the feeling that the mentor could

have done it on her own*' (student teacher i).

[Table 5 near here.]

Six student teachers reported advantages for pupils (Table 5). Thanks

to the presence of an assistant teacher, pupils received more support and

attention (n=5). They received help more quickly when asking questions and could be guided better during exercises. Furthermore, there were two teachers to maintain classroom discipline (n=1). Nevertheless, two student teachers referred to the fact that the presence of the assistant teacher could be confusing for the pupils, for instance during difficult transitions in the course or when the role of the assistant teacher was insufficiently elucidated.

*2.2.2 Experiences reported by the mentors.*

Regarding the question 'How do you evaluate the assistance lessons?', the mentors (N=9) responded rather positively (M=3.67 out of 5, SD=0.71). The advantages and disadvantages mentors observed for the different actors are reported below.

***a. Advantages and disadvantages for student teachers.*** When asked if the assistance lessons had an added value for the student teachers, the mentors responded rather positively (M=3.63 out of 5, SD=1.30). Five mentors explicitly described some advantages in their answers to the open-ended questions, namely professional growth (n=3), personal growth (n=2) and support (n=2), while all 9 mentors also reported limited professional growth for student teachers (See Table 6).

[Table 6 near here.]

Three mentors indicated that the student teachers grew on a professional level during the assistance lessons, mainly as far as the interaction with pupils was concerned. The student teachers indeed had closer contact with the pupils and learned to understand their needs better. Concerning

personal growth, two mentors reported that the assistance lessons made the student teachers less anxious and taught them to interact with the mentor in a different way, for instance: '*The assistantship ensures that the assistant teacher becomes acquainted with the pupils, is less nervous and gains experience*' (mentor i). Finally, two mentors described that the assistance lessons provided support to the student teacher. It was a safe way to become familiar with teaching.

However, although 3 mentors reported professional growth for the student teachers, one mentor also reported limited professional growth for the student teachers.

***b. Advantages and disadvantages for mentors and pupils.*** An analysis of the answers to the open-ended questions (Table 7) showed that the mentors identified both an advantage, namely support (n=6), and a disadvantage, namely higher workload (n=4), for themselves. On the one hand, they indicated that they had less work, that lessons were prepared more intensively and that the student teacher guided some pupils, leaving more time for the mentor to help other pupils. However, when asked if they truly felt supported by the student teacher (see close-ended question in appendix 3), mentors gave rather neutral answers (M=3.33 out of 5, SD=1.23). On the other hand, mentors reported a higher workload (n=4). As such, they found it difficult to devise relevant assisting activities for the student teacher. Planning the assistance lessons also seemed to be difficult. In fact some mentors found it too difficult to define specific assistance tasks during the regular lessons and,

therefore, choose to cooperate with the student teachers during more extensive

assignments outside of the regular lessons. Student teachers were not in a

position to question this decision, but the open answers of the students in these

cases did not indicate that they had a problem with this.

[Table 7 near here.]

As far as the pupils are concerned, three mentors reported advantages

in their answers to the open-ended questions (Table 7). Pupils received more

support and attention (n=3), for instance '*This way the class group could be

more actively guided. For example, a game was better controlled and it was

easier to differentiate*' (mentor d). Furthermore, some mentors noticed that the

lessons were more varied for the pupils (n=2). None of the mentors reported

disadvantages for the pupils.

### 2.3 *Which conditions are critical for successful implementation? (RQ3)*

As far as conditions for implementation are concerned, both student

teachers and mentors made suggestions regarding the preferred timing of the

assistance lessons, the required autonomy for selecting specific assistance

activities, determining the number of assistance lessons and an adequate

preparation for the new roles.

An **adequate timing** was suggested as a first condition. As explained

in the Procedure, in this study the assistance lessons took place after an

Orientation Phase during which the student teachers already had to give two

lessons individually. Most student teachers (M=2.29 out of 5, SD=1.61) and

mentors (M=2.22 out of 5, SD=0.97) disagreed with the statement that the

assistance lessons were an adequate continuation of the Orientation Phase. The

assistance lessons were considered as a step backwards in the growth process

as a teacher. Therefore, a majority of the student teachers (n=12) suggested

that the assistance lessons should be moved ahead in the field experience,

before they had to teach individually. Likewise, five out of eight mentors

indicated the same condition, stating that the assistance lessons should take

place at the beginning of the field experiences, before the student teachers

teaches individually. However, half of the student teachers (n=9) also saw

advantages in the current timing of the assistance lessons. These lessons took

place after their half-yearly exam period and at the beginning of the growth

phase, before they had to teach a number of lessons completely individually.

This gave them the opportunity to get used to the teaching process after being

absent from the school and the class group for some time. Moreover, the

student teachers had more background information on education and teaching

at that point, which gave them the opportunity to learn more during the

assistance lessons: '*It is a sort of transition where you see the lessons even*

*more from the point of view of experienced teachers. Meanwhile, you also*

*have enough background to learn a lot from it. It really does feel like the*

*'start' of the growth phase*' (student teacher b).

Furthermore, some student teachers (n=4) and mentors (n=4) suggested

that **sufficient autonomy** should be given with regard to the interpretation of

the implementation of these assistance lessons and with regard to the number

and the frequency of these lessons. Both mentors and student teachers should be given enough freedom, because the presence of an assistant teacher is not always possible: '*I think that the assisting activities can have an added value, if there is an appropriate activity for the assistant. If that is not the case, these lessons seem to be a waste of time. I don't think this concept is applicable in every context. Not every type of lessons is suited to be given with the help of an assistant teacher*' (student teacher k). Because of this same argument (for three student teachers, however, less sharply formulated), four student teachers chose not to implement the assistance lessons during the regular classes, but during an alternative moment (see 4.1.). Four mentors agreed, stating that not every lesson is appropriate for this model. The role of the assistant teacher was mostly questioned during theoretical or more 'traditional' lessons.

With regard to the number of assistance lessons during field experiences, three student teachers agreed that four or even less, would be sufficient, while one student teacher preferred more assistance lessons.

Finally, student teachers (n=8) reported it is important to give sufficient detailed information beforehand regarding the possible interpretations/ways of implementing the assisting activities. It was not always clear to the mentors and the student teachers in which way these lessons could be implemented. Some mentors (n=4) agreed and underlined the need for an adequate **preparation towards the new roles**: '*It all was new to me and I realize now that there was a lot more to gain. Maybe more elaborated examples or suggestions could give us a better idea…*' (mentor d).

### 3. Conclusion and Discussion

The assistant teaching model is a model of field experiences, based on team teaching, where the student teacher takes the role of assistant teacher. In this study, the assistant teaching model was applied in eight schools by 18 student teachers and their mentors during field experiences in several disciplines. This study aimed to give an explorative overview of assisting activities that were selected by the mentor and the student teacher in mutual agreement, in a context of freedom of choice on how to fill in this opportunity. Within this context, the experiences of both student teachers and mentors regarding this alternative model (advantages, disadvantages and conditions for successful implementation) were mapped in order to derive principles for a focused design of this specific approach in future teacher education settings.

Results showed that mentors mostly prefer to implement the assistant teaching model during lessons in which pupils have to work individually or in small groups. During these activities, the student teachers function as a guide so that additional support could be provided to the pupils. These results match the ones found in the study of Eick et al. (2003), in which the assistant teaching model was only implemented in the context of teaching sciences, and where it was stated that the assisting activities mostly consisted of guiding small groups or individual pupils. The assisting activities were valued in a positive way both by the student teachers and their mentors. Nevertheless, student teachers as well as their mentors stated that it was not always possible

or easy to implement assisting activities because they believe that during more theoretically oriented lessons, in which forms of direct teaching or learning conversations take place, there is less chance to assist in coaching the pupils during assignments. As such this makes good sense as far as the coaching of pupils aspect of teaching assistance is concerned. Therefore, mentors should create sufficient opportunities for activating task-based learning in which assisting activities in the form of additional coaching of the pupils are easier to implement. In fact this corresponds to a typical challenge in shaping teaching practice in schools, where teacher education often has to depend too much on the school-based mentors' definition of good teaching (Ambrosetti & Dekkers, 2010; Feiman-Nemser, 1996; Gijbels, et al., 2016; Tomlinson, Hobson & Malderez, 2010). Thus while shaping teaching assistance one also has to take into account the chance that there will be/is a less rich palette of teaching practice opportunities. However, in the research context of self-determination of teaching assistance practice, four mentors and their student teachers choose to link the teaching approach to an activating initiative external to the normal lessons. It seems that by creating these chances to define assistant teaching in a broader context, for instance within initiatives external to the normal lessons, mentors and student teachers start to define their mentoring relations in a motivating self-directed way, which is supported by research (Ambrosetti & Dekkers, 2010; Hagger, Mcintyre & Wilkin, 2013; Schelfhout, et al., 2006; Wildman, Magliaro, Niles & Niles, 1992).

Another interpretation of the assistant teaching model that was implemented by a majority of the student teachers, was to teach a specific part of the course. This assisting activity can be described as rather traditional as it offers limited possibilities to really cooperate in a context of assistant teaching. However, a number of student teachers were content with this form of assistant teaching for different reasons: because of the shorter periods of teaching they felt that starting to teach happened in a more gradual way and it made them reflect more on these shorter teaching periods. Student teachers were also pleased to have more opportunity to compare their approach with the approach of the mentor. This is interesting in light of the typical challenges involved in smoothing the transition between learning to teach in theory and real teaching practice (Britzman, 2012; Hagger, Mcintyre & Wilkin, 2013) and challenges related to the difficulties with encouraging student teachers to really reflect on their teaching (Korthagen, Kessels, Koster, Lagerwerf & Wubbels, 2001; Loughran, 2002; Moon, 2013; Svojanovsky, 2017). Therefore, as such this interpretation of assistant teaching can make sense.

Globally, the mentors were more positive about this model of field experiences than the student teachers. Both mentors and student teachers recognized the professional growth, the personal growth and the support for the student teachers. Similar advantages were found in previous research on team teaching during field experiences in general (Bashan & Holsblat, 2012; Birrell & Bullough, 2005; Smith, 2004), as well as for the application of the assistant teaching model by the student teacher and the mentor (Eick et al.,

2003; Eick & Dias, 2005). In contrast to the study of Eick et al. (2003) and

Eick and Dias (2005), student teachers in this study experienced some

disadvantages for themselves, such as a feeling of unfamiliarity at the

beginning of the lessons and a limited professional growth. As far as

professional growth is concerned, all student teachers reported positive

feelings, but to different degrees. Nevertheless, due to the limited

contributions they made during the assistance lessons, related to these lessons

half of the students felt they became acquainted with certain aspects of

teaching, but not with the whole process. A number of student teachers

experienced this as an obstacle to their professional growth process and clearly

preferred normal lessons. Likewise, pre-service teachers experiencing co-

teaching during the field experience that were surveyed by Darragh et al.

(2011) wondered whether it was realistic to have two teachers in the room

when employed and whether solo time was needed. All of these observations

point to differences between student teachers in their conceptions of student

teaching (Dang, 2017). As argued by Oosterheert and Vermunt (2001, 2003)

this underpins the need for teacher education to differentiate (more so than at

the moment) between student teachers, which also can be applied to

approaches to assistant teaching (Endedijk, Donche & Oosterheert, 2013).

While a majority of the mentors indicated to experience support from

the assistant teachers, the opinions of the student teachers themselves were

less clear. In comparison to the studies of Eick et al. (2003) and Eick and Dias

(2005), in which the assisting activities took place one or two mornings a

week for a period of 8 to 12 weeks, in this study, the assistant teaching model was only applied during four lessons. It seems that a number of student teachers needed more time to adjust to their roles and, thus, to overcome disadvantages. With regard to the pupils, both student teachers and mentors mainly reported advantages: more support, higher levels of concentration, more varied lessons and a better class management.

These results show that the implementation of the assistant teaching model can have advantages both for the teacher education institutes as well as for the schools where student teachers perform their field experiences. These schools guide the student teachers during their field experiences and, at the same time, the student teachers have an added value for the schools by providing additional support to the pupils. This way, the schools have more possibility to differentiate between the pupils as indicated by the growing research on cooperative teaching (Guise et al., 2017; Mandel & Eiserman, 2015; Millis, 2012; Murdock, Finneran & Teve, 2015; Solis, Vaughn, Swanson & Mcculley, 2012; Tomlinson, 2015).

In the present study, the introduction of the assistant teaching model during student teachers' field experiences was completely new, both in the teacher education institute and in the schools involved in the study. While describing their experiences, student teachers and mentors suggested similar conditions for future implementation. The assistance lessons should take place at the beginning of the field experiences, before the student teachers teach individually. Both groups requested enough and sufficiently elaborate

examples of assisting activities in order to prepare themselves for their new roles. In this study, some suggestions and examples were given, but the mentors were free to adapt them and/or to implement other activities. For some mentors, this seemed to be rather difficult which corresponds with findings from other studies which indicate that some mentors expect more guidance and steering from teacher education, while other mentors prefer to choose their own approach (Clarke, Triggs & Nielsen, 2014; Wang, 2001). As for the student teachers, a certain amount of differentiated approach to assistant teaching could be allowed by mentors and could even be structurally organised. However, this is not easy because a more structured and far-reaching cooperation between teacher training institutions and teaching practice schools remains a challenge (Zeichner, 2010; Darling-Hammond, 2017). Some mentors and student teachers requested more freedom in the interpretation of the assistance lessons (e.g., the number of lessons). They were of the opinion that not every lesson was appropriate to implement the assistant teaching model, but in most cases they approached assistant teaching solely from the viewpoint of helping the mentor to coach while pupils were working on assignments in a self-regulated way.

This study explored the assistant teaching model within the teacher education programme of the University of Antwerp (Belgium). The model was applied to a small group of participants, covering different disciplines. To generalize these conclusions, it is necessary to repeat this study within a larger population. In this study the answers to the open-ended questions were rather

limited. Combining questionnaires with interviews could result in more in-depth results. Finally, it would be interesting to apply the assistant teaching model in combination with other models of team teaching (e.g., coaching model, equal status model), in order to identify the advantages and disadvantages of the different models.

## 4. Implications for Teacher Education

Research on teacher education shows that a number of competences, which should be addressed in teacher education (for instance teachers as members of the educational community), are still poorly explored (Oberhofer, Simons & Smits, 2014; Struyven and De Meyst, 2010). Team teaching of student teachers has the potential to reach this competence (Wilkinson, Pennington, Whiting, Newberry, & Feinauer, 2014). The present study showed that assistant teaching of a student teacher and a mentor could constitute an interesting approach to practice specific competences in a safe, feasible and delineated way. We would like to conclude by giving some specific implications of this study for teacher education and for teacher educators:

- Teacher education institutes are in search of alternative models of field experiences inspired by cooperative and collaborative learning, in order to facilitate a gradual transition to self-regulated teaching (i.e. to independently plan, monitor, and assess their teaching) (Darling-Hammond, 2017; Gardiner & Robinson, 2009; Guise et al., 2017;

Nokes et al., 2008; Zeichner, 2002). This study showed that the assistant teaching model has the potential to do achieve this.

- Team teaching, i.e. the assistant teaching model between a student teacher and a mentor, is relatively easy to implement in teacher education as it corresponds to the most frequently applied concept of field experiences i.e. a student teacher working as a single trainee with an experienced teacher, the mentor (Sorensen, 2014). Further, the assistant teaching model is less intrusive and requires less collaboration between the teaching partners than other possible team teaching models, which makes it an interesting 'transition model'. Our study clearly showed that the assistant teaching model can provide extra support to student teachers, which is given when required during the course and enables student teachers to learn on the spot. Consequently, the assistant teaching model has a lot of potential with regard to the student teachers' professional and personal growth, if these experiences are well organized and adapted to the student teachers' needs in cooperation with the mentor (Davis & Fantozzi, 2016; Mena, García, Clarke & Barkatsas, 2016).

- The assistant teaching model makes it possible to take full advantage of the benefits of team teaching while at the same time reducing any possible disadvantages of other team teaching models (e.g. practical disadvantages such as changing classrooms in the parallel teaching model; competition between two student teachers in the sequential

teaching model (Baeten & Simons, 2016)). The assistant teaching model also enables the student teachers to become progressively, though in a controlled way, acquainted with individual teaching.

- In order to ensure a successful implementation of the assistant teaching model in teacher education, it is important that the assistance lessons are organized at the beginning of the student teachers' field experiences, before the student teachers teach individually. If not, it could be experienced as a 'taking step backwards'.

- The application of the assistant teaching model during field experiences has the best chance to succeed if all actors involved, primarily the student teachers and their mentors, are well prepared for their roles (Baeten & Simons, 2016; Bashan & Holsblat, 2012; Britton & Anderson, 2010; Nokes et al., 2008). Both need to know what is possible and what is expected (e.g. which assisting activities are possible and with which frequency; what kind of feedback is required). Teacher educators could inspire their student teachers (and their mentors) by explaining or showing examples of assisting activities as well as by applying assisting activities during their own lessons.

- Teacher educators should promote communication between the student teacher and his/her mentor, not only during the lesson preparation, but also during the evaluation and reflection.

- Taking into account the student teachers' various individual profiles (Davis & Fantozzi, 2016; Mena et al., 2016), teacher educators can

vary the manner in which the assistant teaching model is applied e.g. the degrees of freedom in the choice of possible assisting activities; the possible use of the mentor's class preparation; the frequency of the assisting activities.

- The application of the assistant teaching model does not imply the substitution of individual teaching (Baeten & Simons, 2016). This concept of teaching is still widespread (Sorensen, 2014), while team teaching is used rather infrequently (Higgins & Litzenberg, 2015) and deserves sufficient attention during teacher education. The assistant teaching experiences should form an integrated part of a broader and well-elaborated learning process, in which the student teachers are encouraged to learn from previous experiences in order to improve future teaching.

We would like to emphasize that it is important for student teachers to be integrated into a group of teachers (student teachers as well as experienced teachers), to enable them to acquire the competencies related to 'teachers as members of the educational community' better and more efficiently (Darling-Hammond, 2017). In this respect, the assistant teaching model shows promise.

**Acknowledgements**

**References**

Al-Saaideh, M. (2010). A rationale to adopt team teaching in prevocational

education in Jordan. *Journal of Instructional Psychology, 37*(4), 269-285.

Ambrosetti, A., & Dekkers, J. (2010). The interconnectedness of the roles of

mentors and mentees in pre-service teacher education mentoring

relationships. *Australian Journal of Teacher Education, 35*(6), 42-55.

Anderson, N. A., & Radencich, M. C. (2001). The value of feedback in an

early field experience: Peer, teacher, and supervisor coaching. *Action in

Teacher Education, 23*, 66-74. doi: 10.1080/01626620.2001.10463076

Baeten, M., & Simons, M. (2014). Student teachers' team teaching: models,

effects and conditions for implementation. *Teaching and Teacher

Education, 41*, 92-110.

Baeten, M., & Simons, M. (2016). Innovative field experiences in teacher

education: student-teachers and mentors as partners in teaching.

*International Journal of Teaching and Learning in Higher Education,

28*(1). 38-51.

Badiali, B., & Titus, N. (2010). Co-teaching: Enhancing students learning

through mentor-intern partnerships. *School-University Partnerships, 4*(2),

74-80.

Bacharach, N., Heck, T., & Dahlberg, K. (2010). Changing the face of student

teaching through coteaching. *Action in Teacher Education, 32*(1), 3-14.

doi: 10.1080/01626620.2010.10463538.

Bashan, B., & Holsblat, R. (2012). Co-teaching through modeling processes:

Professional development of students and instructors in a teacher training

program. *Mentoring & Tutoring: Partnership in Learning, 20*(2), 207-

226. DOI: 10.1080/13611267.2012.678972

Birrell, J., & Bullough, R. (2005). Teaching with a peer: A follow-up study of

the first year of teaching. *Action in Teacher Education, 27*(l), 72-81.

Britton, L., & Anderson, K. (2010). Peer coaching and pre-service teachers:

Examining an underutilised concept. *Teaching and Teacher Education,

26*, 306-314. DOI: 10.1016/j.tate.2009.03.008

Britzman, D. P. (2012). *Practice makes practice: A critical study of learning

to teach.* Suny Press.

Bullough, R., Young, J., Birrell, J., Clark, D., Egan, M., Erickson, L.,

Frankovich, M., Brunetti, J., & Welling, M. (2003). Teaching with a peer:

A comparison of two models of student teaching. *Teaching and Teacher

Education, 19*, 57-73.

Carpenter, D., Crawford, L., & Walden, R. (2007). Testing the efficacy of

team teaching. *Learning Environments Research, 10*, 53-65. doi:

10.1007/s10984-007-9019-y

Clarke, S., Triggs, V., & Nielsen, W. (2014). Cooperation teaching participation in teacher education: A review of the literature. *Review of Educational Research, 84*(2), 163-202. doi: 10.3102/0034654313499618

Cook, L., & Friend, M. (1995). Co-teaching: Guidelines for creating effective practices. *Focus on Exceptional Children, 28*(3), 1-16.

Dang, T. (2017). Exploring contextual factors shaping teacher collaborative learning in a paired placement. *Teaching and Teacher Education, 67*, 316-329.

Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education 40*(3), 291-309.

Darragh, J. J., Picanco, K.E., Tully, D., & Henning, A.S. (2011). When teachers collaborate, good things happen: Teacher candidate perspective of the co-teach model for the student teaching internship. *The Journal of the Association of Independent Liberal Arts Colleges of Teacher Education, 8*(1), 83-109.

Davis, J. S., & Fantozzi, V. B. (2016). What do student teachers want in mentor teachers?: Desired, expected, possible, and emerging roles. *Mentoring & Tutoring: Partnership in Learning, 24*(3), 250-266.

Dugan, K., & Letterman, M. (2008). Student appraisals of collaborative teaching. *College Teaching, 56*(1), 11-15.

Eick, C., & Dias, M. (2005). Building the authority of experience in communities of practice: The development of preservice teachers'

practical knowledge through coteaching in inquiry classrooms. *Science Teacher Education, 89*, 470– 491. doi: 10.1002/sce.20036

Eick, C., Ware, F., & Jones, M. (2004). Coteaching in a secondary science methods course: Learning through a coteaching model that supports early teacher practice. *Journal of Science Teacher Education, 15*(3), 197–209.

Eick, C., Ware, F., & Williams, P. (2003). Co-teaching in a science methods course: A situated learning model of becoming a teacher. *Journal of Teacher Education, 54*(1), 74–85. doi: 10.1177/0022487102238659.

Endedijk, M. D., Donche, V., & Oosterheert, I. (2013). Student teachers' learning patterns in school-based teacher education programmes. *Learning patterns in higher education: dimensions and research perspectives, 102*.

Feiman-Nemser, S. (1996). *Teacher Mentoring: A Critical Review.* ERIC Digest.

Gardiner, W., & Robinson, K. (2009). Paired field placements: A means for collaboration. *The New Educator, 5*, 81-94.

Gijbels, D., Kyndt, E., Peeters, L., & Schelfhout, W. (2016). Getting out the most of the combination of working and learning: the case of teachers-in-training in Flanders. *European Journal of Psychology of Education*, 1-17.

Guise, M., Habib, M., Thiessen, K. & Robbins, A. (2017). Continuum of co-teaching implementation: Moving from traditional student teaching to co-teaching. *Teaching and Teacher Education, 66*, 370-382.

Hagger, H., Mcintyre, D., & Wilkin, M. (2013). *Mentoring: Perspectives on school-based teacher education*. Routledge.

Henderson, C., Beach, A., & Famiano, M. (2009). Promoting instructional change via co-teaching. *American Journal of Physics, 77*(3), 274-283. doi: 10.1119/1.3033744.

Higgins, L., & Litzenberg, K. (2015). Transferring experience through team teaching: The chance of a lifetime. *College Teaching, 63*, 105-111.

Hobson, A. J., & Malderez, A. (2013). Judgementoring and other threats to realizing the potential of school-based mentoring in teacher education. *International Journal of Mentoring and Coaching in Education, 2*(2), 89-108.

Johnson, R. (1997). Examining the validity structure of qualitative research. *Education, 118*(2), 282-292.

Korthagen, F. A., Kessels, J., Koster, B., Lagerwerf, B., & Wubbels, T. (2001). *Linking practice and theory: The pedagogy of realistic teacher education*. Routledge.

Kyndt, E., Donche, V., Gijbels, D., & Van Petegem, P. (2014). Workplace learning within teacher education. The role of job characteristics and goal orientation. *Educational Studies, 40*(5), 515-532. doi: 10.1080/03055698.2014.936829

Loughran, J. J. (2002). Effective reflective practice in search of meaning in learning about teaching. *Journal of teacher education, 53*(1), 33-43.

Mandel, K. & Eiserman, T. (2015). Team teaching in high school. *Educational Leadership, 73*(4), 74-77.

Mena, J., García, M., Clarke, A., & Barkatsas, A. (2016). An analysis of three different approaches to student teacher mentoring and their impact on knowledge generation in practicum settings. *European Journal of Teacher Education, 39*(1), 53-76.

Millis, B. J. (2012). Why Faculty Should Adopt Cooperative Learning Approaches. In B. J. Millis (Ed.), *Cooperative Learning in Higher Education: Across the Disciplines, Across the Academy* (pp. 1-11). *,* Sterling, Virginia: Stylus Publishing.

Murdock, L., Finneran, D., & Theve, K. (2015). Co-teaching to reach every learner. *Educational Leadership, 73*(4), 42-47.

Moon, J. A. (2013). *Reflection in learning and professional development: Theory and practice.* Routledge.

Nevin, A., Thousand, J., & Villa, R. (2009). Collaborative teaching for teacher educators - What does the research say? *Teaching and Teacher Education, 25*, 569-574. doi: 10.1016/j.tate.2009.02.009.

Nokes, J., Bullough, R., Egan, W., Birrell, J., & Hansen, J. (2008). The paired-placement of student teachers: An alternative to traditional placements in secondary schools. *Teaching and Teacher Education, 24*, 2168– 2177. doi: 10.1016/j.tate.2008.05.001.

Oberhofer, M., Simons, M., Smits, T. (2014). Academic teacher training and the IWB: coaching pre-service teachers in Belgium. In: Cutrim Schmid

Euline, Whyte Shona (eds). *Teaching languages with technology: communicative approaches to interactive whiteboard use (*pp. 212-239) . London: Bloomsbury Academic.

Oosterheert, I. E., & Vermunt, J. D. (2001). Individual differences in learning to teach: Relating cognition, regulation and affect. *Learning and Instruction, 11*(2), 133-156.

Oosterheert, I. E., & Vermunt, J. D. (2003). Knowledge construction in learning to teach: The role of dynamic sources. *Teachers and Teaching: theory and practice, 9*(2), 157-173.

Orland-Barak, L. (2014). Mediation in mentoring: A synthesis of studies in teaching and teacher education. *Teaching and Teacher Education, 44*, 180-188.

Schelfhout, W., Dochy, F., Janssens, S., Struyven, K., Gielen, S., & Sierens, E. (2006). Educating for learning-focused teaching in teacher training. The need to link learning content with practice experiences within an inductive approach. *Teaching and Teacher Education, 22*, 847-897

Shin, E., Wilkins, E., & Ainsworth, J. (2007). The nature and effectiveness of peer feedback during an early clinical experience in an elementary education program. *Action in Teacher Education, 28*(4), 40-52. doi: 10.1080/01626620.2007.10463428

Smith, J. (2004). Developing paired teaching placements. *Educational Action Research, 12*(1), 99-125.

Solis, M., Vaughn, S., Swanson, E., & Mcculley, L. (2012). Collaborative
models of instruction: The empirical foundations of inclusion and co-
teaching. *Psychology in the Schools, 49*(5), 498-510.

Sorensen, P. (2014). Collaboration, dialogue and expansive learning: The use
of paired and multiple placements in the school practicum. *Teaching and
Teacher Education, 44*, 128-137. doi: 10.1016/j.tate.2014.08.010

Struyven, K. & De Meyst, M. (2010). Competence-based teacher education:
Illusion or reality? An assessment of the implementation status in
Flanders from teachers' and students' points of view. *Teaching and
Teacher Education 26*(8). 1495-1510.

Svojanosvsky, P. (2017). Supporting student teachers' reflection as a paradigm
shift process. *Teaching and Teacher Education, 66*, 338-348.

Thousand, J., Villa, N., & Nevin, A. (2006). The many faces of collaborative
planning and teaching. *Theory into Practice, 45*(3), 239-248.

Tomlinson, C.A. (2015). Teaching in tandem: A reflection. *Educational
Leadership, 73*(4), 90-91.

Tomlinson, P. D., Hobson, A. J., & Malderez, A. (2010). Mentoring in teacher
education. In P. L. Peterson, E. Baker, & B. McGaw (Eds.), *International
encyclopedia of education* (pp. 749-756). Amsterdam: Elsevier.

Wang, J. (2001). Contexts of mentoring and opportunities for learning to
teach: A comparative study of mentoring practice. *Teaching and teacher
education, 17*(1), 51-73.

Welch, M. (2002). Descriptive analysis of team teaching in two elementary

 classrooms: A formative experimental approach. *Remedial and Special*

 *Education, 21*(6), 366-376. doi: 10.1177/074193250002100606.

Wildman, T. M., Magliaro, S. G., Niles, R. A., & Niles, J. A. (1992). Teacher

 mentoring: An analysis of roles, activities, and conditions. *Journal of*

 *teacher education, 43*(3), 205-213.

Wilkinson, C., Pennington, T., Whiting, E., Newberry, M., & Feinauer, E.

 (2014). Triad relationships and member satisfaction with paired

 placement of student teachers. *Australian Journal of Teacher Education,*

 *39*(8), 162-184.

Wynn, M., & Kromrey, J. (2000). Paired peer placement with peer coaching to

 enhance prospective teacher's professional growth in early field

 experience. *Action in Teacher Education, 22*, 73-83.

Zeichner, K. (2002). Beyond Traditional Structures of Student Teaching.

 *Teacher Education Quarterly, 29*(2), 59-64.

Zeichner, K. (2010). Rethinking the connections between campus courses and

 field experiences in college-and university-based teacher education.

 *Journal of teacher education, 61*(1-2), 89-99.

Appendix 1

Overview of the assisting activities per lesson

**Lesson X**

Age:   21-30;   31-40;   41-50;   51-60
Gender:
Information about the mentor (teaching experience):

Date and time:
Class group:
Subject of the lesson:
Number of pupils:

**Description of the assisting activity/activities**

|      | Activity | Duration | Objectives | Learning content | Learning activities/ Group forms |
|------|----------|----------|------------|------------------|----------------------------------|
| 1.   |          |          |            |                  |                                  |
| 2.   |          |          |            |                  |                                  |
| (…)  |          |          |            |                  |                                  |

Appendix 2

Questionnaire for the student teacher

1.  How do you evaluate the assistance lessons? (Circle the answer that reflects your point of view and elaborate.)       Very bad - Bad -Average - Good - Very good

2.  According to you, what is positive about the assisting activities?

3.  According to you, what is negative about the assisting activities?

4.  How do you evaluate the collaboration with your mentor during the assistance lessons? Why?

5.  Statements. (Circle the number that reflects your point of view: 1= strongly disagree – 5 = strongly agree.)

| | | | | | |
|---|---|---|---|---|---|
| The assistance lessons have an added value for the field experiences. | 1 | 2 | 3 | 4 | 5 |
| During the assistance lessons, I had the feeling I truly supported my mentor.<br>Explain: | 1 | 2 | 3 | 4 | 5 |
| The assistant teaching lessons were an adequate continuation of the orientation phase.<br>Explain: | 1 | 2 | 3 | 4 | 5 |

| | | | | | |
|---|---|---|---|---|---|
| By assisting my mentor, … | | | | | |
| … I felt better prepared to teach individually. | 1 | 2 | 3 | 4 | 5 |
| … I reflected better on effective and non-effective ways of teaching. | 1 | 2 | 3 | 4 | 5 |
| … I have a better understanding of the importance of collegiality. | 1 | 2 | 3 | 4 | 5 |
| … I felt more self-confident in front of the class. | 1 | 2 | 3 | 4 | 5 |

| | | | | | |
|---|---|---|---|---|---|
| During the assistance lessons, … | | | | | |
| … I felt sufficiently supported professionally by my mentor. | 1 | 2 | 3 | 4 | 5 |
| … I felt sufficiently supported emotionally by my mentor. | 1 | 2 | 3 | 4 | 5 |

6. Do the assisting activities have an added value for a beginning teacher?

   Why (not)?

7. Do you think the role of assistant teacher in general is relevant in a teacher

   training program? Why (not)?

8. How can these assistance lessons be improved?

Appendix 3

Questionnaire for the mentor

1.  How do you evaluate the assistance lessons? (Circle the answer that reflects your

    point of view and elaborate.)          Very bad - Bad    Average - Good - Very

    good

2.  Statements. (Circle the number that reflects your point of view: 1= strongly disagree – 5 =

    strongly agree.)

| | |
|---|---|
| The assistance lessons have an added value for the student teacher. | 1  2  3  4  5 |
| During the assistance lessons, I felt truly supported by the student teacher.<br>Please explain: | 1  2  3  4  5 |
| The assistant lessons were an adequate continuation of the orientation phase.<br>Please explain: | 1  2  3  4  5 |

3.  Do you think the role of assistant teacher in general is relevant in a teacher

    training program? Why (not)?

4.  How can these assistance lessons be improved?

Appendix 4

Reflection document for the student teacher

During the four assistance lessons, you have done different activities. In this reflection document, you will think in a structured way about these activities. You will do this through three rubrics: I. General aspects; II. Analysis of the activities carried out as an assistant teacher, and III. Conclusion(s) and most important strengths and weaknesses.

I. General aspects (1 page)

II. Analysis of the activities carried out as an assistant teacher (1 page)

III. Conclusion(s) and most important strengths and weaknesses (0,5 page)

Table 1

*Team teaching models*

| | Model | Role partner 1 | Role partner 2 |
|---|---|---|---|
| Low level of collaboration | 1. Observation model | Full responsibility Teacher | Observer |
| | 2. Coaching model | Full responsibility Teacher | Coach |
| | 3. Assistant teaching model | Main responsibility Teacher | Assistant (e.g., provide support to pupils, use media) |
| | 4. Equal status model | Identical status and responsibilities | |
| |    a. Parallel teaching model | a. The class group is divided into subgroups. Each teacher teaches the same learning contents/activities to a subgroup. | |
| |    b. Sequential teaching model | b. The learning contents or activities are divided. Each teacher is responsible for a different phase of the lesson. | |
| |    c. Station teaching model | c. The class group and the learning contents/activities are divided. Each teacher teaches a specific content/activity to a subgroup. | |
| High level of collaboration | 5. Teaming model | Full collaboration in the planning, delivery and evaluation of the lesson. Considered to be 'true' team teaching. | |

Table 2

*Overview of the instruments in function of the research questions*

| Student teachers | Mentors) |
|---|---|
| - Activity report (RQ1) | - / |
| - Questionnaires (RQ2 & RQ3) | - Questionnaires (RQ2 & RQ3) |
|     o Closed-ended questions |     o Closed-ended questions |
|     o Open-ended questions |     o Open-ended questions |
| - Reflection document (RQ2) | - / |

Table 3

*Scores of the student teachers (N=18) on the statements on the added value of*

*the assistance lessons (see appendix 2)*

| Statement | M | SD |
|---|---|---|
| Professional growth | | |
|   - By assisting my mentor, I feel better prepared to teach individually. | *3.89* | 0.83 |
|   - By assisting my mentor, I can reflect better on effective and non-effective ways of teaching. | 2.78 | 1.06 |
|   - By assisting my mentor, I have a better understanding of the importance of collegiality. | *3.56* | 1.10 |
| Personal growth | | |
|   - By assisting my mentor, I feel more confident in front of the class. | *4.11* | 0.58 |
| Support | | |
|   - During the assistance lessons, I felt sufficiently professionally supported by my mentor. | 3.17 | 1.10 |
|   - During the assistance lessons, I felt sufficiently emotionally supported by my mentor. | 3.14 | 1.04 |

Note. Scores ≥ 3.5 are represented in cursive.

Table 4

*Advantages and disadvantages reported by the students teachers (N=18) when*

*answering the open-ended questions and the reflection documents (see*

*appendix 2)*

| (f)* | **Advantage** | (f) | **Disadvantage** |
|------|---------------|-----|------------------|
| 18 | Professional growth | 13 | Unfamiliarity |
| 12 | Support | 9 | Limited professional growth |
| 10 | Personal growth | 2 | Limited sense of reality |
| | | 2 | Time management mentor |
| | | 1 | Lack of compatibility |

*(f) = Frequency

Table 5

*Advantages and disadvantages for mentors and pupils, reported by the*

*students teachers (N=18) when answering the open-ended questions and the*

*reflection documents (see appendix 2 and 4).*

| (f)* | **Advantage** | (f) | **Disadvantage** |
|------|---------------|-----|------------------|
| 8 | Support for the mentor | 8 | Limited support for the mentor |
| 5 | Support and attention for the pupils | 2 | More confusion for the pupils |
| 1 | Better class management for the pupils | | |

*(f) = Frequency

Table 6

*Advantages and disadvantages for student teachers, reported by the mentors*

*(N=9) when answering the open-ended questions (see appendix 3)*

| (f)* | **Advantage** | (f) | **Disadvantage** |
|------|---------------|-----|------------------|
| 3 | Professional growth | 1 | Limited professional growth |
| 2 | Personal growth | | |
| 2 | Support | | |

*(f) = Frequency

Table 7

*Advantages and disadvantages for mentors and pupils, reported by the*

*mentors (N=9) when answering the open-ended questions (see appendix 3)*

| (f) | Advantage | (f) | Disadvantage |
|-----|-----------|-----|--------------|
| 6 | Support for the mentor | 4 | High workload for the mentor |
| 3 | Support and attention for the pupils | | |
| 2 | More varied lessons for the pupils | | |

*(f) = Frequency