Supporting formative assessment in the second language classroom. An action research study in secondary education.

Abstract

Formative assessment (FA) is an important tool for supporting student learning. It provides
learners information about their learning process and supports them through feedback on how
to improve their learning. Although it is recognized by secondary school teachers as crucial to
language assessment, the integration of FA in their second language teaching practice has been
limited. A participatory action research (PAR) design in the present study, offers insights into
how the learning process of teachers implementing FA can be encouraged. Teachers involved
in this PAR were offered a FA toolbox and the opportunity to learn from their peers as sources
of support. The data analysis of semi-structured interviews, action plans, and video coaching
sessions show that the participants react to this support in different ways. Some teachers
experience the FA toolbox as a source of inspiration, but are less inclined to reflect with
colleagues on how to improve the implementation of FA. The majority of the participants
indicate that the toolbox raises awareness on a more purposive use of FA. These teachers work
with colleagues as critical friends to discuss their vision on teaching and FA implementation.
Lastly, a third group of teachers are already using many of the tools offered by the toolbox. In
discussions with colleagues they mainly put forward suggestions, take up a coaching role and
reflect on the contribution of their actions to the school policy.

Keywords: Formative assessment, participatory action research, second language education

Introduction

Over the last decades researchers have indicated formative assessment (FA) as a crucial
element of high-quality teaching (Stiggins and DuFour 2009). FA, which refers to assessment
for learning (Wiliam 2011b), enhances student motivation, improves students' ability to learn,
and increases equity of student outcomes (Harlen and Crick 2003; OECD 2005; Leahy and
Wiliam 2012). FA involves collecting, interpreting and acting on information about students'
learning process. It allows teachers to gain insights into the knowledge and skills that their
students have mastered and provides the latter with information about their progress.
Furthermore, it gives students feedback how to improve their learning (Bennett 2011; Black
1993; Wiliam 2011a).

According to the constructive alignment theory of Biggs (2003) student learning
outcomes should be defined before teaching takes place. This means that teachers need to
reflect on which outcomes have to be reached and how they can create a supportive learning
environment that allows learners to construct their own learning by means of meaningful

learning activities. In order to realize such a learning environment, teaching methods, assessment tasks and learning activities should be aligned. Concern about the alignment of assessment and learning is also growing in second language education (Purpura 2016). FA is more and more being recognized as crucial to language assessment. Nevertheless, summative assessment, used to evaluate and often grade a student at the end of the learning process has been the traditional focus of language assessment (I. Lee and Coniam 2013). I. Lee (2011) claims that assessment in second language education, especially in writing, has most often been used for summative purposes.

According to Crusan (2010) a great deal of research focuses on the reliability and validity of language assessment. However, limited attention has been paid to how language teachers can integrate FA in their teaching practice. As such, a participatory action research (PAR) project (Stringer 2014) was set up in Flanders (Belgium) to support second language teachers' use of FA in their teaching practice. The purpose of PAR is to empower participants in their organization, e.g. teachers in their schools, to achieve change. In this project, we aimed to increase teachers' awareness of decision-making and implementation of teaching practices with regard to FA (Whitehead 2000). The importance of this aim is also emphasized by policy makers in Flanders who indicated the necessity to correctly align learning objectives with criteria used for (formative) assessment in second language education (Flemish Department of Education and Training 2017). Literature on FA puts forward a number of guiding principles (i.e. choice, small steps, flexibility, accountability and support) that need to be taken into account when supporting teachers in their use of FA (Wiliam 2006).

Building on the aforementioned principles, we have developed a toolbox (https://formatiefevalueren.kdg.be/) that combines methods and ideas on FA. Its development process benefited from the input from the participants in the project. In addition, they shared their experiences with their fellow teachers through video coaching. This method used taped activities of participants to fuel group discussions (Masats and Dooly 2011). The present study reports on teachers' learning processes in applying FA. It aims to ascertain to what extent (1) a FA toolbox and (2) opportunities to learn from colleagues through video coaching can support second language teachers to use FA in their classroom practice.

Formative assessment in second language education

In the last decades second language education has witnessed a shift from a traditional product approach to a learner-centered, process-oriented approach (Y.-J. Lee 2006; Graham and Sandmel 2011). According to M.-K. Lee (2015) feedback is one of the central components to master writing skills. It supports students to plan, draft, review and revise a text. In addition,

the Common European Framework of Reference for Languages (CEFR) stresses the relevance of an action-oriented approach to learn a language (Council of Europe 2020). The CEFR's action-oriented approach focuses on a needs analysis of learners and looks at what learners already have acquired by formulating a 'can do' approach. This 'can do' approach is based on one of the main principles of the CEFR, i.e. to promote a positive formulation of educational aims and outcomes at all levels. Rather than focusing exclusively on scores in tests and assessments, the 'can do' approach underpins the need to create a roadmap for learning, based on descriptors, in order to monitor progress. Formative assessment can be identified as the key element to realize this 'can do' approach (Council of Europe 2020). Furthermore, the action-oriented approach is integrated in the language use model of the CEFR. This model highlights the importance of language activity as observable student performance in a speaking, writing, reading and/or listening task, performed in a realistic and authentic context. Cambridge ESOL (2011) states that "observing this activity allows teachers to give useful formative feedback to their students, which in turn leads to learning" (p.8).

Also in Flanders (Belgium), policy makers and stakeholders such as the Catholic schools network, emphasize that second language teachers need to focus on students' language activity during lessons to provide formative feedback (VVKSO 2010). Recent research by inspectors in secondary education indicates that second language teachers in senior high schools do give students feedback during assignments (Flemish Department of Education and Training 2017). However, the quality of feedback varies and depends strongly on the accuracy of the criteria teachers define for these assignments, especially for the productive skills (i.e. writing and speaking). Criteria are often not sufficiently aligned with the objectives of the writing or speaking assignment (Flemish Department of Education and Training 2017).

Furthermore, Flemish second language teachers in secondary education, especially French and English teachers, are increasingly being confronted with considerable differences in students' language proficiency: French native speakers, former students of special education for non-Dutch-speaking newcomers, differences in out-of-school exposure,... (Flemish Department of Education and Training 2012; Peters et al. 2019). So to optimize students' learning, teachers need an insight in students' learning process: to identify needed extra support and to provide challenges for high achievers.

Formative assessment and teachers' professional learning

Research on the implementation of FA in other subjects (e.g. mathematics) shows that FA is complex to put into practice (Vingsle 2014). Heritage et al. (2009) revealed that math teachers

experience difficulties using assessment information to plan subsequent instruction.
According to Avalos (2011) teachers need adequate support stimulating them to use FA in
their classes. We used Wiliam's (2006) guiding principles to design our action research for
second language teachers.

Choice

Wiliam (2006) states that teachers often find it "scary" to change their practice because they
are worried to give up control of their classroom. Leahy and Wiliam (2012) show that when
teachers can decide for themselves how to implement FA, they are more likely to take action
and feel responsible for the implementation. Professionalization can only succeed when
teachers become active agents of their own learning (Borko, Jacobs, and Koellner 2010).

Small steps

Teachers tend to develop routines for teaching. Innovation sometimes requires teachers to
change their mindset and integrate changes in existing routines. Professional learning needs to
progress step by step in order to prevent teachers from reverting to their former practices after
introducing and trying out new ideas (Leahy and Wiliam 2012; Wiliam 2006).

Flexibility

Teachers need the flexibility to adjust FA to their classroom context (Ginsburg 2001).
However, it must be ensured that FA is still effective. To find a good balance, Leahy and
Wiliam (2012) suggest to distinguish *strategies* from *techniques.* Strategies provide a focal
point of teaching (e.g. clarifying learning intentions and setting criteria for success or
providing feedback that moves learners forward). Techniques are specific classroom routines
that are validated in research and can be adapted to a specific context.

Support and accountability

According to Leahy and Wiliam (2012), appropriate help can be offered through a
combination of support and accountability. First, support needs to include instructional
resources, materials, examples of FA teaching strategies, basic principles of good feedback,
and effective questioning. Second, learning together in a group of teachers is proposed as an
important source of support (Heitink et al. 2016). It creates the opportunity to report the
changes made, to reflect, to discuss concerns, and to receive feedback from colleagues also
working on changes in their practice (Black and Jones 2006; Harrison 2013). A study by
Jones (2014) with second language student teachers shows that reflecting on and discussing
classroom experimentation with FA enables students to go beyond the traditional focus on
summative assessment at school and to adopt a new mindset towards assessment, teaching
and learning. Because teachers are still accountable for their own implementation in practice,

they must be provided with the time and resources to try out novel approaches to assessing students' progress (Leahy and Wiliam 2012).

Professional learning is a challenging process that differs between individual teachers. In the literature, researchers try to understand the differences in teachers' professional learning. Vermunt and Endedijk (2011) relate professional learning to educational innovation: teachers respond to educational innovation (e.g. FA) in various ways. They can apply different learning patterns depending on the innovation they deal with. First, teachers can react to the innovation in a *performance-directed* way, which means they tend to transfer immediately to their classroom practice what they have learned, trying to remember what works for their students and adjust what does not. The improvement of their practice is strongly related to the implementation of hands-on practical suggestions. Second, teachers with a *meaning-oriented* learning pattern combine learning to implement an innovation with the development of a frame of reference. They want to understand the underlying principles of teaching and student learning, and extend their theory of practice in their search to know why things work. Teachers can also be *undirected* in their learning. These teachers sometimes struggle to set clear goals to direct their learning, and altering their teaching practice takes time. They are cautious to implement educational innovations and feel reluctant to adopt them.

Andersson and Palm (2018) connect differences in teachers' professional learning and implementation of a new formative classroom practice to the expectancy-value theory of achievement motivation (Wigfield and Eccles 2000). According to this theory, expectancy of success and achievement values are the major drivers to carry out activities. The expectancy of success refers to a person's beliefs of how well they will conduct the upcoming tasks, e.g. beliefs of how successful somebody is in learning and implementing new FA practices. Achievement values are a combination of the perceived importance of the performance on the activity, perceived usefulness of the activity, enjoyment while conducting the activity, and extent to which engagement in the activity limits access to do other activities (Wigfield and Eccles 2000).

Pedder and Opfer (2013) indicate that values, practices, and the dissonance between them can result in 4 learning orientations that lead to professional learning: *Internal orientation:* teachers experiment in their classroom practice, modify their practice and are reflective on what they put into practice. *External orientation:* teachers use external sources of information and knowledge (Internet, drawing on good practices from other schools, modifying practice in the light of feedback about classroom practice from colleagues).

Research orientation: teachers read research reports to improve their practice, relate what works in their own practice to research findings and modify practice in the light of published evidence. *Collaborative orientation:* teachers carry out joint research/evaluation with colleagues to improve their practice, engage in reflective discussions and collaborative teaching and planning. The differences in how teachers react to educational innovation (e.g. FA) and monitor their learning should be taken into account when trying to integrate FA in classroom practice.

The aim of this study is to gain insights into the learning processes of teachers while applying FA. The following research questions are put forward:

1. To what extent does a FA toolbox support second language teachers' learning processes to use FA in their classroom practice?

2. To what extent are second language teachers' learning processes to use FA in their classroom practice supported by opportunities to learn from colleagues?

Methodology

In a PAR design, which was adopted for this study, participants share a commitment to individually or collectively investigate an issue or problem. By reflecting and clarifying the issue, actions can be generated that lead to a useful solution. PAR requires researchers to actively participate in this process: they serve as facilitators to assists participants to define their problems, and support their activities in dealing with the identified problems (Stringer 2014).

In accordance with Wiliam's (2006) guiding principles, we based the toolbox on the input from the participating teachers. The toolbox includes methods and ideas on how to put FA into practice and is subdivided in three broad categories: making learning visible, adjusting learning, and learning in a stimulating environment. To make *students' learning processes visible*, the toolbox provides examples of how to analyze student work, use strategic questioning, and observe students while performing. To improve and *adjust students' learning*, ideas of getting students to engage with feedback from teachers and peers and personal reflections were included. Lastly, the toolbox makes suggestions about how to create a *stimulating learning environment* paying attention to students' motivation for second languages, differentiation, etc. The aim of the toolbox is to inspire teachers to implement FA in their classroom practice. The participating teachers chose for themselves what methods and ideas from the toolbox they wanted to try out, which made them personally accountable for the implementation.

Since Leahy and Wiliam (2012) emphasize the importance of learning with and from colleagues, we conducted a second person action research. Second person action research focuses on processes of working with others on the same topics through face-to-face conversations allowing participants to share experiences and discuss issues of mutual concern (Reason and Bradbury 2008). The participants share their experiences with colleagues by means of video coaching. Feedback on video clips allows teachers to look at themselves from a distance and creates a space for reflection (Fukkink, Trienekens, and Kramer 2011). Trust between team members is essential for active participation in discussions about improvement efforts and for concentrating on learning from each other (Atteberry and Bryk 2011). That is why the composition of the teams was in the hands of the schools and the participants themselves.

PAR is achieved through a cyclical process of exploration, knowledge construction, action and reflection at different moments throughout the research process (Chatterton, Fuller, and Routledge 2007; McIntyre 2008). In line with Stringer (2014), the series of cycles in this study comprises three steps: Look – Think – Act (Figure 1).

<Please insert Figure 1 here>

In the *look* phase the participants define and describe the question or problem to be investigated. By gathering information, the researchers endeavor to understand the experiences and perspective of the participants. The *think* phase allows researchers and participants to analyze the question in a more in-depth manner. Lastly, the participants develop action plans in the *act* phase. These plans are also implemented, reviewed and evaluated by them. The look-think-act cycle can be run iteratively, to guide the learning process of participants (Stringer 2014). In order to increase the transferability of this study, a detailed description (i.e. thick description, Geertz, 1973) of the school context, study participants and research activities conducted in this study is provided in the following.

Participants and situational background

This study focuses on four secondary schools in Flanders which were selected by purposeful sampling. Purposeful sampling is a technique often used in qualitative research for the identification and selection of information-rich cases. It is used to consciously select individuals or groups of individuals based on a particular set of attributes (Patton 2015). According to Stringer (2014), the major attribute of sampling in action research is the extent to which a group or individual is affected by or has an effect on the issues of interest. In this project, all selected schools felt the need to implement FA in their daily practice due to the

increasing diversity of the student population and the necessity to focus on language activity.
School A, publicly financed and run by the municipalities, is located in a rural area. School B,
C and D, publicly financed and privately run, are located in an urban environment. In total, 19
language teachers volunteered to participate. The project was carried out in the 2017-2018
and 2018-2019 school years. Table 1 displays the demographic characteristics of the
participants. Five teachers dropped out after the first school year; the reasons for this are
included in table 1.

<Please insert Table 1 here>

Data collection and development of the toolbox

In this section we describe the data collection and the analysis used to answer the research
questions. The different steps of the action research cycle and the development of the toolbox
are visualized in figure 2.

<Please insert Figure 2 here>

Multiple approaches of triangulation were integrated in this study to enhance the process of
qualitative research (Stringer 2014; Korstjens and Moser 2018). First, we used
methodological triangulation by incorporating multiple sources of information (i.e. semi-
structured interviews, video coaching, action plans). Second, data triangulation was applied
by gathering data on different times. Third, investigator triangulation was assured by
including two different researchers (the first two authors) in the data analysis. The
interpretations of the data were constantly compared and differences discussed.

Step 1: Look

At the beginning of the 2017-2018 school year, semi-structured open-ended interviews with
all participants were conducted. The first two authors designed and refined the interview
protocol. The interviews focused on how teachers dealt with FA in their current classroom
practice (e.g. describe how you check students' understanding, describe how you give
constructive and frequent feedback, feed-forward, feed-up to students) and their experienced
difficulties. Participants also discussed their personal goals related to FA. The interviews took
15 minutes on average, were digitally recorded and transcribed ad verbatim.

Step 2: Think

Analyzing the interview data served two goals: a) to understand more profoundly the participants' goals and the support needed for FA and b) to build a framework for the toolbox. In the first-cycle process we used the structural coding approach, a question-based coding whereby a code represents a topic of inquiry (e.g. FA practices, goals and needed support) (Miles, Huberman, and Saldaña 2014; Saldaña 2013). As a second-cycle analytic process, the focused coding approach was used to identify categories from the data. Finally, we applied axial coding to discern categories from subcategories. This final analysis resulted into a framework (Figure 3) that gave an overview of participants' goals and support. This framework was used to assemble the FA toolbox participants used in the act phase. The first version of the toolbox was reviewed and assessed through peer debriefing by members of an expert feedback group (including the third and fourth author) (Janesick 2015).

<Please insert Figure 3 here>

Step 3: Act

A training session (February 2018) at the university college campus introduced participants to the first version of the FA toolbox and the principles of video coaching (e.g. focusing on initiatives and interaction between students and teachers, confirmation in communication, (non) verbal communication). The participants also refined their initial goals and indicated which resources from the toolbox they would use to accomplish their actions. From March till May 2018 participants implemented these actions into their classroom practice. The participants were asked to film these actions and focus on the interactions with and between students. Video coaching, with groups of two to four teachers, was used to review and evaluate the actions. Based on the video recordings teachers discuss the actions realized and give feedback to each other. These sessions took approximately two hours and were moderated by the first two authors. The conversations were digitally recorded and transcribed verbatim.

Before the second action research cycle started, we refined (e.g. provide extra examples of peer feedback and self-reflection by students) the toolbox based on the feedback from the teachers in the first video coaching. The toolbox was revised by the same expert feedback group as mentioned in step 2.

Second cycle think and act

In 2018-2019, participants revised their action plans and put their personal actions into practice, followed by a second video coaching session. We analyzed the data and used process

coding (Saldaña 2013) to code the transcripts of the first and second video coaching sessions. Process coding refers to observable activities and more general conceptual actions and interactions that occur in the data. Examples of these codes are 'explaining action', 'reflecting on action', 'asking for advice', 'giving ideas', 'discussing implementation hindrances'. Based on the frameworks of differences in learning (learning patterns of Vermunt and Endedijk (2011), expectancy-value theory of achievement motivation (Wigfield and Eccles 2000), and the learning orientations of Pedder and Opfer (2013)) reoccurring learning activities among participants were assembled to analyze their commonality and to create a pattern code. In addition, longitudinal coding was applied for the transcripts of the second video coaching session to understand change processes (Saldaña 2013). In the coding process, each separate participant was coded as a single case (within-case analysis). Additionally, common and different patterns were compared and contrasted across cases (cross-case analysis).

Results

In the following, we present the results of the first and second action research cycles. The results show that we were able to distinguish three different ways of how teachers used the provided (sources of) support to implement FA in their teaching practice. Out of the 19 participants, 6 teachers (3 teachers dropped out after the first video coaching) could be assigned to group 1. The majority of the participants (n = 10; 2 teachers dropped out after the first video coaching) could be assigned to group 2 and a limited number of teachers (n = 3; no drop-outs after the first video coaching) could be assigned to group 3. First, we will show how teachers in the three groups experienced the use of the FA toolbox. Second, we will elaborate on differences in the way experiences were shared between the groups of teachers. The main findings are summarized in Table 2.

<Please insert Table 2 here>

First action research cycle

Support by the FA toolbox

The results from the first action research cycle reveal that teachers in group 1 consider the toolbox as a source of inspiration with direct applicable methods, specifically for FA.

> *The toolbox was very clear, I liked that it provided specific things with practical tips. For each part there is a specific example that you can immediately take over or adjust (teacher 5).*

The direct applicability of the tools helps teachers in group 1 to formulate specific goals in their action plans and to implement FA correctly (e.g. visualizing which vocabulary students have not yet mastered or collecting information to adjust the next lesson). The use of the toolbox also increases teachers' awareness of what FA is and what effect it has on their students.

> *You just finish your lesson and you think they know it, now with the exit ticket you see that there are still 4 or 5 students who have not understood it if you look at what they wrote. It becomes very tangible, otherwise you ask the same question again "does everyone understand?" (teacher 4).*

Teachers in this group indicated in the first video coaching that they sometimes do not have enough time to apply FA. Giving instruction and organizing the classroom is specified as an obstacle by some. Therefore, this group of teachers often select FA tools that require less classroom organization (e.g. quiz with mentimeter, choral response).
In some situations teachers of group 1 fall back on summative assessment to realize their goal or use FA in a less goal-oriented manner. They use FA tools as a way to make their lessons more attractive but do not monitor students' learning progress.

> *So I used the tool 'three facts and one lie' as a speaking exercise to talk about eating habits in England and the United States. In this lesson I asked students to write down two statements and change them to false statements. They already get a grade on the preparation of the propositions [...] and the next step would be that I give students a little knowledge test of this unit (teacher 16).*

Looking at the teachers in group 2, the data show that working with the toolbox encourages them to purposefully use FA in their lessons.

> *I thought it was positive that you are very conscious about which tool you will select and "what am I going to focus on in the lesson". I thought much more about what I wanted to do (teacher 13).*

In developing their action plans, these teachers nearly always use FA in order to realize one specific goal (e.g. to visualize students' personal learning points and use this knowledge to differentiate, as a repetition of what students learned in the previous lesson and making feedforward explicit to students, etc.) in the first action research cycle.

Last week I did a carousel activity about houses and furniture. […] In order to test what they still know about this lesson I used the tool 'crossfire' to start the lesson. For themselves it is important to know: what do I still remember, what did I forget, What's my progress in learning this vocabulary? […] I also tell the students Now you also know for yourself. If you think: "I could answer most questions", then you are doing well. If you notice: "I didn't know too many words, then you know it's time to take a look at that vocabulary." (teacher 9).

Teachers in group 2 sometimes face challenges related to classroom management when they implemented tools from the toolbox. They note that thoughtful use of FA can be time consuming. Nevertheless, they see this as part and parcel of good teaching.

…Also because I know that when I put the students in the same row, they would fool around and then the focus is gone. If they have to stand next to each other for too long it becomes difficult. I made this decision based on class management. In another class this can be done perfectly, but in this class it is important that they sit behind their desks (teacher 18).

The teachers in group 3 had already thoughtfully used FA before the research project. They were using FA in (a series of) lessons in order to realize multiple goals. They also connected their actions to their frame of reference (e.g. differentiation, investing in active and self-regulated learning)

I have to add that I don't do whole-class teaching so often anymore. A lot happens in smaller groups. It is important to know that these experiences are different. I don't have problems giving the responsibility of the learning process to the students. […] But actually I have the feeling by putting them to work in a different way that I know more of their learning process than before, when they all looked at me and I asked, 'is everything clear? (teacher 12).

Although teachers in group 3 experience the toolbox to a lesser extent as supportive, it helps them to embed FA more systematically, with attention to the goals and the learning process of their students.

For us the toolbox was not very innovative, we (she and a colleague of another department) already knew and tried out a lot of tools. But the thing is, I'm busy with

*everything but not always in a systematic way and that's the good thing of the toolbox
to be much more conscious about it (teacher 12).*

Support by learning in dialogue

Teachers in group 1 reflect only to a limited extent on their actions. In most cases, they
report the positive effects of the tools but also spend the majority of their time talking about
practical issues related to classroom management.

*[...] It was positive that during this activity they could not hide themselves, they
needed to participate. The only thing that is very cumbersome is that it takes a lot of
time (teacher 14).*

When they get suggestions from other colleagues on how to deal with practical issues,
teachers in group 1 either embrace or refuse these ideas, stating they do not have time or
raising practical difficulties.

Teachers in group 2 have an investigative attitude when looking back on their actions.
They want to find solutions for actions that did not work out the way they planned.
Particularly, they reflect on the content and organization of their actions in order to optimize
them.

*If I would do it again, I would work with a fixed 'jury' that switches every time
someone new presents, so everybody can take turns. Also I noticed that they don't
always use the correct adjective e.g. he likes animals instead of he's an animal lover.
So maybe I can make cards with the adjectives they have learned and they can take
these cards with them when they need to present (teacher 18).*

Furthermore, teachers in group 2 see other colleagues as critical friends and/or as a source of
inspiration. During the video coaching sessions they ask their colleagues for their opinion or
advice on how to improve their actions. In their urge to move forward they also prove to be
more receptive to feedback.

Besides having an investigative attitude towards their own actions in the classroom,
teachers in group 3 also reflect on how their personal experiences have an added value for the
school policy.

*Next year we will have one hour of differentiation [students are divided into class
groups based on their proficiency level] for French and mathematics at school, we are
still looking how we can organize this, but I think that the toolbox can offer us quite a
few possibilities (teacher 15).*

Moreover, these teachers receive few suggestions; they mainly give suggestions and compliments to others.

> *This connection with what students know is very important. The voice, most of them know the TV-show, but they only turn around if you offer them the right experience. It is clear that this works (teacher 17 to teacher 18).*

Second action research cycle

Support by the FA toolbox

The results of the second action research cycle show that teachers in group 1 keep using the tools from the toolbox that, in their opinion, are directly applicable in classroom practice. The toolbox helps them realize how to embed FA with small actions. However, these teachers hesitate to experiment with tools that have a more complex setup.

> *I indeed realized that it can be something small that you just apply in your lesson and that it doesn't always needs all the trimmings. (teacher 1)*

In their action plans they continue to focus on one single action in FA. Customizing FA actions to their specific context is difficult for them.

> *Such a toolbox is useful. You have to remind yourself of visiting it (the toolbox). But it asks, at least a bit, a mindshift. It is useful, you see the added value, but you still have to make the step of using it. Because everybody has his own teaching-style and this (FA tools) are the extras. (teacher 4)*

In addition, the data of the second round of video coaching shows that time management remains an issue for group 1 teachers. They also continue to point out that FA is difficult to achieve with specific target groups (e.g. students who follow a technical training have more difficulties in correcting each other's language mistakes).

The data shows that teachers in group 2 continue to fall back on the toolbox to purposefully use FA in their lessons and get inspiration.

> *I agree what x (teacher 2) said earlier: I think that's (the toolbox) very good to be inspired, because I don't get these ideas spontaneously, but when I have something like that (the toolbox), a grip, then I can get started.'(teacher 3)*

Also, the toolbox supports most of the teachers in group 2 to provide effective feedback. Although the full feedback circle (feed-up, feedback and feedforward) is not always present, these teachers include several elements of effective feedback in their lessons.

> *They made a family tree and presented it in front of the class. Then I handed out the reflection form of the toolbox and asked them: "take a look at the criteria (they always get the criteria in advance) and score yourself on the correct use of grammar, did you spoke loud and clear,….". They needed to hand in their assignment sheet together with their reflection. During the presentation I also scored the same criteria and it was very useful to do it because in some cases I could say to the students: "you really did it better than you expect, you can have more confidence." (teacher 19)*

In their action plans some of the teachers in group 2 pay more attention to the organizational aspects of their actions before they put them into practice. They often combine tools in a well-considered way (e.g. collecting information on students' learning process and acting on this by giving feedback) and offer students a scaffold that can support their learning.

> *So they had to prepare the conversation and then I wrote a framework on the blackboard of which steps they needed to follow during the feedback session.(teacher 18)*

On the one hand teachers in group 2 progress in the way they let students take responsibility for their learning and sometimes find solutions to previous challenges (e.g. they use handbooks and other sources more effectively to save time, and they indicate that they can tolerate more noise when students collaborate). On the other hand, new barriers emerge.

> *I find it very difficult to develop a good rubric. What is important to me? How can I explain in written sentences when students sufficiently mastered the subject matter? (teacher 13)*

The data from the first video coaching shows that the toolbox provides less innovative ideas for teachers in group 3. Nevertheless, these teachers state in the second coaching session that the toolbox gives them an extra nudge to gradually plan FA and work in a more goal-oriented way.

> *Yeah! I spent more time on it, and I took a more comprehensive approach because I thought, "I'm just gonna give it a try! And my experimental personality was reinforced*

> *thanks to the project. However: "Is it completely new material?" or "Are there*
> *completely new forms of evaluation?": I actually already used them. (teacher 17)*

In the second video coaching session, teachers in group 3 link FA to students' self-regulation
and metacognition. They are not afraid to let students fail during the learning process to
motivate them to take responsibility for their own learning.

> *I think we don't invest enough in the metacognitive aspect of learning. We don't do*
> *much about it. Students do not know why we do certain things and sometimes you have*
> *to explain: "These are the pros and these are the cons" (...) Indeed, afterwards I'm*
> *going to see how it did turn out... "How did you experience that ?" or "what did you*
> *notice about yourself". (teacher 12)*

Support by learning in dialogue

Also in the second video coaching session, reflections and discussions by teachers from group
1 center around the challenges of using FA. Although these teachers indicate that the tools
have positive effects, they do not come up with ideas on how to improve their use in
classroom practice.

Compared to the first video coaching, teachers in group 2 have not only acquired an
investigative approach towards the actions they put into practice, in discussions with other
teachers they also include topics such as: what kind of teacher they want to be, how they can
create a safe classroom atmosphere and how FA fits the vision of the school.

> *And just commit yourself to use different strategies. Because otherwise you use the*
> *strategies which you have been using for so many years, because you have a certain*
> *habit and you keep on doing. So I said to myself "I'm going to take a completely*
> *different approach and we will see what it gives." (teacher 13)*

During the second video coaching, teachers in group 3 reflect on their personal understanding
of teaching and learning and how this connects with FA. In these reflections they also criticize
the use of summative assessment.

> *Written tests...I find this also very time-consuming. In my lessons I want that students*
> *advance in their level of English and I don't want to give marks every time for what*
> *they learned in the previous lesson.(teacher 17)*

Teachers in group 3 keep reflecting on how their personal experiences could have an added
value for the school policy.

> *The advantage is that you can refer to the curriculum. That's what they said in the*
> *English department "We need to show more how and where we measure what the*
> *curriculum requires." And with the 'For all rubrics' you can make it visible. (teacher*
> *17)*

Finally, teachers in group 3 not only share tips and tricks but also take up the role of a coach in conversations they have with other teachers.

> *Teacher 13 (group 2): I'm more aware now, I'm going to make sure that I vary in*
> *tools and now I also know which tools suit me better. Beforehand I would have said*
> *'That would not be right for me' and now I'm saying "Actually that works well now*
> *that I tried it."*
> *Teacher 12: We're gonna hold on to that thought, x (names teacher 13). The fact that*
> *you thought "this doesn't suit me and in the end it works". So I'm going to repeat that*
> *one more time.*

Discussion

This study focused on second language teachers' learning processes related to FA. With our first research question we investigated to what extent a FA toolbox could encourage teachers to use FA in their classroom practice. The second research question examined to what extent opportunities to learn from colleagues about FA practices prove supportive to teachers. The results allowed to distinguish differences in learning processes of teachers and the way teachers use the different sources of support (e.g. toolbox and learning from colleagues).

Our results show that teachers in group 1 tend to be more undirected in their learning related to FA. They have difficulties in realizing their FA objectives or are less goal-oriented. This confirms the findings of Vermunt and Endedijk (2011) that undirected teachers sometimes struggle to set clear goals to direct their learning. Regarding the toolbox as a support resource, our study indicates that teachers in group 1 are inspired by the FA toolbox. The toolbox supported them to use FA in a way that is directly applicable. Also these teachers expressed that the use of the toolbox increased their awareness of what FA is and how it can be put into practice by means of small interventions. At the same time teachers in group 1 mentioned that adapting the tools of the toolbox to their classroom practice met with obstacles (e.g. class management, too little time to realize FA) that made it difficult to carry out FA. This is in line with the finding of Oosterheert and Vermunt (2001) that teachers who are more undirected in their learning relate problems to contextual factors. However, identifying barriers can be a valuable step in dealing with innovations. Zwart et al. (2007) stated that

when teachers observe other colleagues' practices and perceive the impact of these practices
on students' learning, it may give them the feeling that change is realistic.

<mark>Concerning learning from colleagues as a support resource, our study reveals that
teachers in group 1 are provided with examples and suggestions by other teachers on how to
implement FA.</mark> This confirms research by Black and Jones (2006) and Harrison (2013) who
identified that learning with colleagues creates opportunities to discuss problems and
concerns, allowing fellow teachers to give feedback on teachers' actions. Despite these
chances, teachers in group 1 do not really engage in reflective discussions of working
practices, which is an important element of the collaborative learning orientation identified by
Pedder and Opfer (2013). According to Leahy and Wiliam (2012) teachers are still
individually accountable for their own implementation. Reflecting on their personal practice,
based on their ideas or on feedback from colleagues is an important learning activity for
teacher learning in the context of educational innovation (Bakkenes, Vermunt, and Wubbels
2010). The fact that teachers in group 1 score low on the 'reflection' learning activity in the
video coaching sessions might explain why these teachers still experience difficulties putting
FA into practice at the end of the two-year project.

Teachers in group 2 tend to be more goal-oriented in realizing FA. They express that
the toolbox, through the practical application of ideas, supported them to use FA purposefully.
These teachers also displayed an investigative attitude, actively reflecting on their actions and
looking for ideas from other teachers. This learning process resembles the performance-
directed learning pattern described by Vermunt and Endedijk (2011) who indicated that
performance-based teachers are eager to improve their performance and want to examine
what works in the classrooms. Previous studies (Vermunt et al. 2019; Tynjälä 2008) revealed
that this learning pattern is, in general, the most favored way of teachers to professionalize,
which seems also to be the case in the present study.

<mark>Furthermore, we noticed that teachers in group 2 reacted differently on the support
resource 'learning from colleagues' than teachers in group 1. The results of the first action
research cycle demonstrate that teachers in group 2 work with their colleagues as critical
friends.</mark> According to Bakkenes, Vermunt, and Wubbels (2010) the learning activity 'getting
ideas from others' is often an incentive for other learning activities such as experimenting or
deeper reflection. This might explain why teachers in group 2, due to their reflexivity, paid
more attention to the organizational aspects of their actions in the second action research
cycle. Sometimes by experimenting they discover solutions for the obstacles in the first action

research cycle. It seems that the internal orientation of learning is strongly intertwined with the collaborative orientation for teachers in group 2. In addition, the second action research cycle revealed that teachers in group 2 evolve in using the opportunities to learn from their peers. Teachers in group 2 use the time they have with colleagues to discuss aspects such as teacher values, a safe classroom climate and the school's FA vision. This finding is in line with Jones (2014) who found that discussing classroom experimentation related to FA can support teachers to refine their vision of teaching, learning, and assessment.

In the data we see that the toolbox is less useful to the third category of teachers. It could not be identified as a real source of support for these teachers. However, it does provide them with an impetus to systematically plan FA. When talking about their FA actions in the first action research cycle, group 3 teachers relate these actions to their vision on learning (e.g. differentiation and self-regulated learning). This is in line with the meaning-oriented learning pattern (Vermunt and Endedijk 2011) whereby the teachers use concrete processing strategies relating theory to practical experiences (Van der Wal-Maris et al. 2019). Also in the second action research cycle, these teachers relate students' self-regulation and metacognition to FA. In contrast to teachers in groups 1 and 2, these teachers did not mention obstacles when planning or implementing FA. An explanation for this result might be found in the expectancy-value theory of achievement motivation (Wigfield and Eccles 2000). These meaning-oriented teachers 3 had thoughtfully used FA before the start of the project and experience FA as an important aspect of students' learning which might stimulate teachers to carry out new actions related to FA.

The findings regarding the support resource 'learning from colleagues' demonstrate that teachers in group 3 take up a coaching role. The data showed that these teachers mainly make suggestions and compliments to others. Thurlings and den Brok (2017) identified coaching as an important teacher professional development activity. Their meta-study showed that teachers who coach other teachers develop stronger beliefs about their own teaching.

Limitations and practical implications

The findings of this study should be interpreted within the context of its limitations. The sample size (n= 19) was relatively small and so results are not intended to be generalized. One needs to be careful with the findings from the second action research cycle, because a number of teachers dropped out after the first. Future research may need to consider a larger sample size to get a better understanding of teachers' learning processes related to FA. We focused on

the individual learning processes of the participating teachers. Further research could focus on the interactional dynamics and the collaborative dimension within team and how this affects teachers' professional learning in the context of FA. It would be interesting to investigate how these dynamics evolve over time. The learning opportunities of the language teachers of group 3 were fairly limited. Follow-up research could set up a study in which teachers who have more experience with FA are grouped in one team.

Further perspectives

Taking into account these limitations, we do believe this study reveals some important outcomes, which can have interesting implications for both theory (cf. supra) and practice. We found that the FA toolbox helps teachers, especially teachers with less experience related to FA, systematically plan FA in their classroom practice. As such, the toolbox can be used in teacher education programs to help pre-service teachers include FA in their lesson planning. Furthermore, in order to stimulate teachers to use FA on a daily basis schools could engage teachers in action research and give them the necessary space and time to exchange experiences and (learn to) reflect on their practice.

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