

Learning to reflect: Enhancing instrumental music education students' practice through reflective journals

Silke Kruse-Weber & Timea Sari
University of Music and Performing Arts Graz, Austria

Abstract

Conservatoire students are required to spend substantial amounts of time engaged in instrumental practice to improve efficiency. However, students often lack self-regulation skills to optimise their practice behaviour and strategies. These skills are essential for musicians, and even more so for prospective instrumental educators, as they will teach their future pupils to practise effectively. There is a need in higher education to teach reflective practice. Reflective journals could provide some insights into students' learning and reflection. This study, with its aim of gaining insights into students' learning and reflective practice, reports on the course Learning and teaching instrumental practice, offered to undergraduate students of Instrumental/Vocal Pedagogy and instrumental studies. In each course unit the students are introduced to different theoretical concepts. Furthermore, the students keep an individual reflective journal about their instrument practice and are encouraged to share their experiences with their peers. The students' written contributions were analysed in order to retrace the development of their reflective skills. Preliminary results of this pilot study show that the students find it difficult to reflect critically on different levels, such as by documenting, contextualising, interpreting, evaluating and planning. Finally, for the majority of the students, reflective writing indeed fosters an understanding of learning processes. This can therefore enhance self-regulation skills, which in turn can lead to optimising instrumental practice.

Introduction

Instrumental practice is a constant companion for music students in order to advance proficiency on their instruments. When practising, students usually spend many solitary hours working on different technical problems and on the refinement of musical interpretations as they prepare for lessons, performances and examinations. During these activities, beside effective and sophisticated task-oriented strategy use, (meta)cognitive strategies are essential for improving and maintaining musical performance skills and practice, and one would assume that especially conservatoire students knowledgeably (if not routinely) adopt these strategies in their daily practice. However, in many cases instrumental practice is not always effective – even in higher education. Students tend to prioritise the amount of time they invest in practising their instruments as a guarantee of musical achievement instead of focusing on the quality of their practice. Many students still rely heavily on their teachers' feedback, and if not given any clear practice instructions, they usually tend to 'just repeat'. Similarly, Jørgensen (2000) points out that at his academy the majority of students at the start of their courses 'have received little or no advice from former teachers on practice behaviour' (p. 73), which might indicate that students enter higher music education with only limited and ineffective learning strategies. Furthermore, many of the students feel that their practice is often unproductive and wish to learn more about practising (Jørgensen, 2000). In addition, students often lack explicit theoretical knowledge and appropriate reflection tools to optimise their practice habits and strategies. In accordance with Jørgensen (2000), we suggest that instrumental learning at higher music educational institutions should emphasise the learning processes of students instead of learning outcomes and offer them support in optimising their practice behaviours. Accordingly, the aforementioned obstacles could be diminished if students would systematically learn during their musical (higher) education to reflect more and more deeply on their actions, motivation, behaviour and results during practice sessions.

The current pilot study is part of an ongoing development research project, *Learning to reflect*, and reports on the seminar *Learning and teaching instrumental practice* offered each term to undergraduate students majoring in instrumental and vocal pedagogy and instrumental studies at the University of Music and Performing Arts in Graz, Austria. The students in the seminar play various instruments in the classical, jazz and folk music genres. The seminar was established with a view to promoting the development of competent, creative and reflective musicians who know how to practise efficiently. The lecturers aim to facilitate the students' reflective practice by fostering their ability to reflect verbally and in writing as well as exploring various

principles of reflection and theoretical concepts during the course. Students are asked to keep a weekly journal about their practice activities, and the receive feedback from the course lecturer in order to improve their reflection skills.

In this contribution we first expand on the theoretical background of the study. We discuss relevant research about structured (deliberate) practice, self-regulation and metacognition as the key variables in musicians' work. Then we provide some information about the objectives and contents of the seminar *Learning and teaching instrumental practice* itself, followed by a description of the current study with its participants, data, method and analysis. Finally, the findings and insights from the analysis of the reflective writings will be presented and discussed in a wider context, contributing to a broader understanding of the relationship between reflective practice and students' learning.

Background to the study

In the following chapter we will present theoretical principles for reflective practice and discuss relevant literature.

In the discourse about reflective practice Donald Schön (1983, 1987) provides a foundational work and theoretical framework for our research. Most literature related to the relevance of reflection in learning processes as well as its importance for the evolvement of reflective practice refers to the work of Schön (1983, 1987). He delineates two basic types of reflection: reflection-in-action and reflection-on-action. Reflection-in-action refers to reflection during an activity; it is mostly implicit. In conjunction, reflection-on-action means stepping back and making sense of past actions, experiences and thoughts in order to explore possible alternatives or adjust to future ones. (Schön, 1983, p. 68). Similarly, Cowan (2013) suggests that reflection can also take the form of 'reflection-for-action', through which we intentionally and deliberately plan and prepare ourselves for future activities by identifying potential difficulties and alternatives.

(Self-)reflection, as a stepping out of the action or a learning process, takes on a new dimension especially in the written form by allowing the writer the alienation from his own work process (Bräuer, 2000). In various higher education disciplines and

curricula, reflective journals are the most commonly applied tool to enhance students' reflection skills.

Research on musical practice has a long tradition and provides an extensive body of literature describing, observing, examining and analysing musicians' practice strategies, habits and behaviours (e.g. Chaffin & Imreh, 2001; Gruson, 2000; Hallam, 1995, 1997; Miklaszewski, 1989; Nielsen, 1999). Generally, most research on musicians' practice is based on the underlying framework of deliberate practice, introduced by Ericsson, Krampe and Tesch-Römer (1993). In their meta-analysis, Macnamara et al. (2014) conclude that the 'amount of deliberate practice is not as important as Ericsson and his colleagues have argued' (p. 3). However, although the role of the quantity of practice in musical performance is still significant, subsequent research has stressed that the quality of practice is also a pivotal aspect in the development of musical excellence. Therefore, Williamon and Valentine (2000) propose that 'the content and quality of deliberate practice must be examined before fully understanding the factors which affect the quality of specific performances' (p. 373). In line with this proposition, Bonneville-Roussy and Bouffard (2015) present the framework of formal practice positing that 'self-regulation, deliberate practice and practice time, taken separately, are necessary but insufficient for explaining musical achievement . [. .] it is necessary to combine all three constructs in order to attain optimal performance' (p. 690).

Self-regulated learning occurs when students become 'metacognitively, motivationally, and behaviourally active participants in their own learning process' (Zimmermann, 1986, p. 308). Metacognitive aspects refer to planning and organising the learning process as well as to self-instruction, self-monitoring and self-evaluation. Motivational aspects encompass feelings of competency, autonomy and self-efficacy. Behaviourally, self-regulated learners actively structure, select and create their learning environments to enhance learning (Zimmermann, 1986). Although the basic tenets of self-regulated learning originate from a general educational context, applying this paradigm to investigations in music education and performance proved to be highly informative and brought valuable insights into the mechanisms of musical learning and practice (Bonneville-Roussy & Bouffard, 2015; Hewitt, 2011; Jørgensen, 2004; Leon-Guerrero, 2008; McPherson & Renwick, 2001; McPherson & Zimmermann, 2011; Miksza, 2007; Nielsen, 2001).

Related to reflection and the use of reflective journals in teacher education programmes, Hatton and Smith (1995) provide an extensive literature review of the various strategies used to promote student reflection and report on their study investigating

the impact of these strategies on students' reflection. Their data sources include students' written reports, self-evaluations, videotapes and interviews. The authors identify three different types of reflection: descriptive, dialogic and critical. While critical reflection is only identified in a few instances, the majority of reflections are coded as descriptive, which in many cases led on to dialogic reflection. Furthermore, the authors find that reflective writing preceded by a dialogue with another colleague ('critical friend' interviews) is characteristically dialogic, indicating that verbal interaction in addition to writing can be a useful tool to facilitate deeper levels of reflection. Similar experiences are reported by Hume (2009), stating that her students' reflections are descriptive rather than evaluative and that 'students' comments tend to reflect a "need to know", or "what needed to happen" approach, but usually the next step is missing – that is, the specifics of how to address the need' (p. 25). In the context of arts education, Rolfe (2006) conducts a study with nine dance students, asking them to keep reflective journals over a period of 21 weeks. The students are provided with handouts and guiding questions to promote more profound reflection. They receive feedback on their writing from the course tutor and have some opportunities for peer-to-peer discussions.

There are also several studies investigating reflective processes and the fostering of reflective skills through reflective journals in a music educational context. Brown (2009) investigates the use of reflective journals as a means to foster Australian voice students' critical, creative and self-regulated thinking. By providing extracts from students' journals, the author demonstrates that reflective writing can indeed help students to better evaluate the effectiveness of their actions, to identify their strengths and weaknesses and make more concrete plans for actions, but also to verbalise problematic issues such as performance anxiety. In the study by Esslin-Peard et al. (2015), first and second year classical and popular music students are asked to write reflective essays at the end of the academic year about their learning, performance and practising. With regard to the first year students, the authors identify three common main themes, 'Technique', 'Insight' and 'Targets', which were apparent in both classical and popular music students' essays. Around these themes, students report on their preoccupation with and development of technical matters and skills as the major focus of their learning and practice in their first year of study, which often lead to revealing insights and deeper understanding of their individual practice routines and needs. However, in terms of future targets and goals there are some differences between the two groups. Classical musicians formulate individual goals such as certain performance opportunities or changes in practice habits. In contrast, popular music students set themselves rather general targets. As for the students in their second year of study,

two different sets of themes emerge from the data set. Classical musicians are focused on 'tuning and intonation' and are still preoccupied with consciously thinking about how to practise and the knowledgeable application of various practice strategies ('metacognitive practice strategies'). The third theme, 'change and "a-Ha" moments', is related to experiences of unanticipated discovery in practising and understanding. As for the popular music students, the two most commonly elaborated themes are 'individual practice' and 'band practice'. Summarising the results of this study, the authors suggest that the maturation of musicians implies iteration of practice 'or mindful repetition utilising metacognitive processes [which in turn] implies a conscious process of planning, doing, reflecting and *changing*' (Esslin-Peard et al., 2015, p. 142, emphasis in original). In a study conducted by Carey et al. (2017), reflective journals are utilised to capture students' various learning activities and experiences during their first year of musical studies. In addition to a workshop designed to promote students' understanding of reflective practice, they are also provided with questions to prompt their journal-writing related to learning goals, personal achievements and progress. The results show that reflective journaling stimulated the students' critical thinking and dialogue, enhanced feelings of autonomy and responsibility for their own learning, and through the writing task, students are thinking more about their learning goals and engage more often in student-teacher discussions, which lead to a more collaborative approach.

Facilitating reflective practice: Learning and teaching instrumental practice

This study reports on the seminar *Learning and teaching instrumental practice* offered to undergraduate students. With this seminar we aim to aid students in furthering their (instrumental) practice skills, and for this we consider the enhancement of self-regulation processes, skills in reflective practice as well as skills in reflection as essential. Therefore, we regard these two basic principles as the cornerstone of our course.

Through keeping reflective journals, we encourage students to analyse judgements and attempt to provide rationales to reach effective learning outcomes. Based on the cycles of self-regulation and the levels of reflection according to Bräuer (2016), we focus in these journals on reflection-on-action as an activity that critically observes the relationship between students' intentions and goals, means, ways and activities,

as productive reflection can lead to changes in goals or activities in order to optimise the efficacy of practising and making music.

In each seminar unit students are introduced to different theoretical concepts and have the opportunity to put this theoretical knowledge into practice via different methods. We discuss various theories concerning motor learning and formal practice, and we inform the students about neuroscientific findings and their implications for musical practice. With regard to didactic theories, we give input about error and risk management, time management and ways in which teachers can promote self-regulation and guide pupils to learn and practise on their own. In order to demonstrate how this knowledge can be put into practice, we suggest different working methods adopted from ICON¹, such as the 'balance wheel', 'SMART goal setting' as well as the 'present level assessment form', which encourages students to ask questions and set goals strategically in the long, medium, and short term (Williams, 2017).

During the course of the seminar we employ three forms of reflective writing: a narrative biography at the beginning of the semester in which students are asked to recall their musical career and development prior to university in order to get them into writing. Following this first assignment, throughout the semester students are required to keep a weekly reflective practice journal. At the end of the semester students write another reflective essay, a meta-reflection, in which they reflect on their experiences and learning in the seminar throughout the semester based on their individual practice diaries. All these methods are accompanied by continuous feedback from both instructors and discussions with peers.

In order to help students to deepen their reflections we introduce the didactic model from Bräuer (2016), demonstrating levels of reflection from a rather sketchy form of reproduction towards deeper (or in this case higher) levels of self-analysis. In this four-stage model learners first reflect on an experience by mentally replaying and depicting it in a descriptive, non-judgemental way (level 1). The learner is then ready to re-evaluate the experience by progressing through further stages. In the second step students are asked to analyse the underlying reasons for their actions and interpret the circumstances of their experience (level 2). When analysing and interpreting, the quality of one's own actions is questioned and discussed in order to create awareness of the specific meaning of the experience. New insights can be linked to existing

¹ ICON stands for 'Innovative Conservatoire', which is an international collaboration that stimulates knowledge exchange, innovation and reflective practices by bringing together teachers in music higher education (Duffy, 2016).

knowledge, and further insights are gained. At the next level of reflection (level 3) the students will compare what they have learned with their own goals and external expectations by evaluating the experience. Finally (level 4), students are expected to plan new strategies and activities as a consequence of the experience and argumentation of the previous steps.

With this model in mind, students are encouraged to examine critically, discuss and then revise their writings while challenging their assumptions and exploring different ideas and approaches towards their thinking and feelings about practising.

Finally, we should like to add a comment about the assessment procedure we used for marking the reflective journals at the end of term. The lecturers were conscious not to mark the content of the individual reflective journals as that would inhibit the students' expressions. Instead, we discussed how the various levels of reflection from Bräuer (2016) could help define criteria for the assessment. In addition, we showed them different examples of reflection in order to achieve transparency for grading. Furthermore, we came to an understanding that only the last three writings were graded. Crucial criteria were: reflecting critically, thinking in lines of argumentation, contextualising practice with an understanding of embodied practice.

As students are usually not familiar with writing and keeping a reflective practice journal, we provide them with a few guiding questions:

- What do I want to learn/practise? Is my goal appropriate?
- How do I want to practise? Do I know how I can succeed?
- How can I confirm/check that I have learned it?
- If I did not succeed, what can I change or improve?

As an additional idea for organising their thoughts, we also offer a table template. Generally, students are welcome to write freely according to the guiding questions or to write their entries into the template. In addition, each student receives individual feedback on each submitted journal from the lecturer. In the meta-reflections the students are asked to reflect on their experiences at the seminar in its entirety, including its content, the topics discussed and the writing of the journals. For this writing task, we provide following guiding questions:

- What did I learn?
- How did I learn?

- Which were for me the most important aspects of this seminar?
- Where do I see my strengths?
- What do I want to adopt in the future?
- What was useful for me to learn?
- What was unclear to me? Which aspects do I still need to catch up on?
- Which topics would I still like to elaborate on?

Study

Participants and ethical considerations

A total of 13 students registered for the seminar *Learning and teaching instrumental practice*. During the last seminar unit we explained and described the objectives and the rationale of the study to the group. Subsequently, a written information sheet and a consent form were distributed to be signed and returned to us. Students were informed that participation in the study is voluntary and that their written reflections would be anonymised and treated confidentially. Participants who gave their written consent to participate in the study received a random ID number, and any persons referred to by name in reflections were anonymised.

11 students consented to participate in the study. Six of them are female and five male, their ages ranging from 19 to 31.

Data

This study is based on a data set comprising students' reflective journals and final meta-reflections, submitted during the summer term 2018. The length of these written reflections varies greatly with some students submitting as many as six to eight reflective journals over the semester, others only three; yielding a total of 70 individual reflective practice journals and 11 meta-reflections.

Data analysis

At the start of the data analysis we first examined the formats of the reflective journals. Next, we were also interested in whether there would be a change in the format of the journals and possible interactions between format and content, tracing the

development of students' reflective writing skills. Subsequently, we analysed the content of the journals and meta-reflections through a thematic analysis, first with an inductive approach whereby initial codes were generated. However, our analysis and the final formulation of our codes and themes were complemented by a deductive process informed by the relevant literature.

We analysed the journals and the meta-reflections separately, as we had slightly different research questions concerning the two sets and types of reflections.

The analysis of the journals was guided by following research questions:

- How did students describe their practice? (Format)
- What did they describe? (Content)
- How did the format of the journals affect the content?
- How did their reflections develop over time?

As for the meta-reflections, the analysis was guided by following questions:

- How did the students experience reflective writing?
- What matters to the journal writer?
- What did the students subjectively learn?
- Did the students consider reflective journals as a useful tool to enhance practising?

Findings

Reflective journals – format

By examining the format of the reflective journals we can distinguish three distinct types. The first, 'table type', is characterised by a table format. The entries are written in a strict and reduced 'telegraphic style', neutral, without personal pronouns. The journals in this style contain primarily lists and bullet points, conveying a certain strong impression of distance. The second type of journals, the 'dialogue type' is the antipode to the table type. These journals are written as running texts with fully formulated sentences, providing the reader with detailed descriptions of actions and showing clear engagement by using the personal pronoun 'I' extensively. The third 'mixed type'

of journals can be placed between these two opposites. Here the writer employs the template, and the entries concerning goals and strategies for the practice session are kept in telegraphic style. However, when it comes to observations and reflections, the accounts are written in a similar style to the journals of the dialogue type. During the formal analysis we also look at how the format changed over time. At the beginning of the semester all but one student employed the template we proposed, but after a few weeks this format was abandoned, and the majority of students used the format of the mixed type. Some students change the style of their writings more radically, as they replace the table type immediately with the dialogue type.

Reflective journals – content

During the thematic analysis of the reflective journals the following main themes are identified: documentation of practice sessions, goal setting, metacognition, resources, and feelings.

Documentation of practice sessions

By looking into the content of the journals, we are not surprised to find documentations of the what and the how of practice sessions as the central category.

I try to unpack all the practice strategies I know. I practise legato sections staccato at a fast pace, but in such a way that I can still control my fingers and my sound. I also practise with dotted rhythms, from back to front, with various rhythmic variations. (Student 8)

I practise the left hand alone, without pedal. I'm phrasing in my head, but I still try to articulate bar-by-bar. (Student 9)

I watched myself in the mirror while I worked on my fingering. This has helped me a lot, because this way I could notice early if my hand got tense. Therefore, I revised some fingerings. (Student 7)

The students provide us with detailed reports of their actions, various practice strategies and methods, how they work on different technical aspects and interpretations, how they prepare and memorise pieces for performances, and which additional methods they use for practice.

Goal setting

Goal setting is a recurring topic both in the seminar and in the journals. Already at the beginning of the seminar we observed that the majority of students had some difficulty setting and formulating detailed and meaningful goals. Initially, the students state the content of their practice sessions as goals and do not specify further.

Goal: Bach Partita: Corrente, Bars 27-30: technique. Sarabande: by heart and not rushing. (Student 9)

However, after addressing the issue of goal setting in the seminar and coaching the students individually via feedback, towards the end of semester we can see a certain improvement.

My goal for the last [few] days was to work on difficult passages, and because this is a transcription it was important for me to stay as close to the original as possible. (Student 10)

In the third movement I need to improve my interpretation. I think better phrasing will make playing this piece easier. Movements one and two I practise for safety in performance, so I play through. Doing this, I also change my focus: I choose a faster or a slower tempo, I pay attention to rhythmic peculiarities or to the timbre. I ask myself: do I know the harmonies/fingering at this or that place? (Student 2)

Metacognition

More precise goal setting but also various other inputs in the seminar probably help the students to monitor and evaluate their practising more accurately, and because of the fact that they have to write up their actions and thoughts while practising, they start to observe themselves more consciously. This could mean that after a while, their writing shows more and more signs of metacognition.

Ravel still takes a lot of practice time, and on the first day I switched to Albeniz rather late, I was – despite a long break in between – pretty exhausted. I noticed that my goal (every day two lines) will be not reached. But this time, as already mentioned, I want to counteract this. That's why I always started

with Albeniz right from the second day – and lo and behold, it works for now. So obviously the objective was feasible, the kind of implementation was rather the problem. (Student 2)

Resources

Another constant category is personal and material resources. In these comments the students write about difficulties and challenges in terms of time management, deadlines, lack of time, tiredness or retention of concentration, for instance. At the beginning of the semester, these remarks are more like complaints, without considering a solution.

A quick look through, no more time for it. It's enough. In class I can be corrected anyway. (Student 1)

Till the end of the semester, it probably will not get much better with the time I have for practising and how much I have to do a day. (Student 3)

At the end of the semester these complaints become more reflective in the way the students write and think about how they could handle these difficulties.

I set the alarm for an hour, and for that time I don't let myself lose focus. I have to practise at the university, where the only thing in the room to be interested in is the piano. If I feel that I'm already tired or cannot concentrate anymore, I go out and breathe some fresh air. Only then I can let go of my thoughts that always wanted to come before. (Student 1)

For the next week, I have to organise my time even better in order to use my practice time in a more efficient way. This also includes switching off the phone while practising. (Student 11)

Feelings

When changing the format for the reflective journals, the students also adapt their writing style. While the first journals are kept in a rather distant style, during the course of the semester the reflections demonstrate more self-involvement and engagement.

This change goes hand in hand with descriptions of feelings about and during practice. It is remarkable that the students report rather positive feelings throughout the journals. These positive feelings are there even in the table type journals (but also in the other types) in the form of satisfaction and feeling good about progress.

I was very satisfied with my practice and my concentration today. (Student 7)

Later these positive feelings were extended and refined. The students started to write more about having fun and enjoying practising, confidence and pride in their progress, success and skills.

In my opinion, the time for this session was very well invested: I practised not only the high notes, perfected my embouchure and intonation, but I also did something good for my soul. Before playing this piece, I didn't realise how much I missed Mozart. And this emotional connection makes me feel like I have rose-tinted glasses on. My enthusiasm for playing the piece is far greater than any technical issues and hurdles. (Student 6)

As the students write more openly, they start to share their negative feelings as well and admit to fear, anxiety, frustration, feeling guilty, remorse, doubts and insecurity.

I tried to play the concerto from memory but failed miserably after only 2 bars. How embarrassing!! I could have shot myself for this foolishness. (Student 4)

I'm pretty disappointed with myself for not being able to think faster. (Student 6)

By looking at the form and content of the journals in parallel, it is clear that these two elements were related. However, it is not clear whether the form has an impact on content or, conversely, content affected the form. As for the development of the journals over time, we can state that there is a positive development in the students' reflections over the semester, demonstrated by more detailed descriptions and a stronger self-involvement in the writings. We find indications that over the course of the semester the students start to regard and examine their own practice from a different perspective. However, this change is gradual, often blurred and with setbacks, and the students' progress in writing is rather idiosyncratic; some shifts happening abruptly, others are more subtle.

Meta-reflections

Learning process

During the semester the students initially discuss and reflect on their development in terms of learning and practising as a rather responsive and unconscious action, which then evolved into a more proactive, deliberate organisation of practice. The students describe their struggles while learning: how to organise their practice environment and manage their time; how to set specific, meaningful, achievable, reachable and timely goals and how to plan ahead in order to reach their self-set, broader targets.

Because of this seminar I regard my practice now from a new perspective. Now, I first think about which practice strategy would be the best and then I start to practice. In the past my practice was rather unstructured, and I just ploughed ahead with it. (Student 7)

The students try to balance between quantity and quality of practice, emphasising goal-setting, monitoring and evaluating their practice progress instead of unilaterally focusing on the amount of time spent practising.

That the quality is more important than quantity is very clear to me, and since I also see for myself and hear how much progress I make, I think that will certainly improve over time. (Student 3)

For the majority of the students, reflecting systematically on their practising is a completely new experience. Some of them mention that they expand their horizons and actually change their practice by exploring new strategies like goal-setting, mental training or fragmented practice by splitting fast movements in fragments. The students gain more awareness and knowledge of their repertoire of strategies, so that they enhance their metacognitive skills.

At the beginning of the semester I could not imagine how diverse daily practice can actually be. (Student 7)

This course helped me to solve problems not only with methodology, or by assessing everything through my experience, but also by always looking for new ways to be more flexible. (Student1)

I found it very helpful and refreshing after a long time as a practising musician to take a deep look at the theory of practice again. Many things were new or inspired me to look at things from new perspectives. (Student 10)

The students also reflect on their future objectives, some of them indicating their intention to integrate reflective writing into their practice sessions in the future.

In any case, I would like to continue to write down keywords while practising and, in retrospect, to think again about them. (Student 10)

However, there is a certain conflict between the priority of instrumental practice and reflection with respect to the time demands of writing the journals. The belief that only 'real' practice, i.e. physical instrumental practice, can lead to success – and not reflection on it – is dominant. Students look at their instrumental practice in a pragmatic way, regarding practice as a learning process to achieve a desired product as soon as possible. Indeed, some students in the seminar state quite bluntly that they view writing the reflections as a waste of time. Nevertheless, as the meta-reflections demonstrate, a shift did occur as well. At the end of the semester many students still see writing the journals as strenuous, yet very beneficial.

Writing these reflections was very laborious and time-consuming because I had to get used to document and reflect my actions, movements and workflow. (Student 9)

Basically, I think that I've always thought a lot about practising, but a written reflection is something else. (Student 10)

What I do not want to do is to keep writing everything down. On the one hand, honestly, it really takes a lot of time, which could often be better spent practising. (Student 2)

Some students also reflect on the challenge of combining physical practice with reflective writing:

At first I found it difficult to get an idea of the format in which the practice journals work best for me. At the beginning I tried to use keywords in table form, but I had to realise that I would rather stay on the surface. During practice I started to write down a few thoughts that came to mind and then

reflect on them in hindsight. That means the actual reflection happened after practising. I also tried to go through the whole process while practising but found that this completely breaks the flow, and you never really get in there. With the keywords it was not difficult to recall the practice situation and to think about it. I then wrote down these thoughts. (Student 10)

Didactic aspects

The meta-reflections also reveal meaningful didactic outcomes. Feedback, coming from lecturers or peers, on the learning platform or in personal communication is appreciated as being very helpful and supportive.

The feedback on the journals was very useful surely not just to me, but also to many other students in the seminar. It helped us to improve our writing and reflect on a deeper level. Especially after a personal communication with the course instructor, when I could explain my practice situation at the moment, it was much easier to express myself in my journals. (Student 6)

Another important aspect is the difficulty in finding the motivation to write the journals, to share personal thoughts with lecturers and, last but not least, to put feelings into words.

For me personally, it is difficult to tell my thoughts to a stranger; the problem is not so much to adequately formulate my statements, but it is quite an effort to open up to others. (Student 6)

Discussion

Students' views on practice and self-regulated learning

An interesting finding from our study relates to the students' basic comprehension of instrumental practice. We find several indications that during the semester the students closely observe and perhaps even reconsider their practice habits in order to move away from 'just' practising towards a more 'optimal practice' (Williams, 2017). Consequently, reflective writing fostered consciousness about learning processes and could therefore enhance self-regulation skills, which in turn could lead to optimising

instrumental practice. With regard to Larrivé (2000), some of our students engage in critical reflection by exploring unexamined beliefs, assumptions and expectations. Furthermore, they also experience certain shifts in thought by changing their personal attitudes and learning. Increasingly, students challenge their assumptions and question existing practices. As our findings show, by asking our students to keep these reflective journals, we are able to trigger some changes in their approaches to practice.

By providing the students with theoretical input as well as practical applications in our seminar and by encouraging them to include their new knowledge into their daily practice, we attempt to motivate them to transform their declarative knowledge into procedural knowledge. However, it is possible that not all of them are able to build procedural knowledge with respect to self-regulation skills. However, the students articulated that they had never thought systematically (particularly in writing) about how to explicitly adapt their practice. This is in line with Jørgensen (2008), observing that 'many students enter higher music education without much practice help from former teachers. Teaching practice is, accordingly, a task that has to be addressed on all levels of instrumental education' (p. 14). He subsequently points out that 'knowledge of practicing is a fundamental prerequisite for progress' and therefore, 'teachers must teach practicing to their students' (Jørgensen, 2008, p. 14). Carey et al. (2017) as well as Hübner et al. (2010) also indicate that journal writing can encourage students to make connections between new ideas and their existing knowledge in order to monitor their learning continuously and to address gaps in their understanding at an earlier stage, which may lead to enhanced learning outcomes.

However, it was quite difficult at the beginning of the semester for the students to set their own goals in a productive way. While Carey et al. (2017) state that in their study the students often reflect on their goals, for us the challenge is rather that the students learn to formulate meaningful goals. In addition, the students are exclusively concerned with the quantity of practice time, insisting on 'more' without addressing the quality of the playing and practice (Jørgensen, 2008). We also observe that certain personality traits can have an effect on reflection and that there is sometimes a certain resistance by the students to engage in reflective journaling, as they consider writing much more time-consuming than talking. Furthermore, our experiences are comparable to an observation reported by Rolfe (2006), who also noticed that some students do not see at the outset of the semester the benefits of journal writing. But later, consistent with findings by Carey et al. (2017), most of the students view reflection as a useful tool to enhance confidence, to establish goals and to complement learning. Many points in our students' writings demonstrate characteristics of mature musicianship in practising, as

suggested by Esslin-Peard et al. (2015). The students focus on similar topics: 'technique', 'insight', 'individual practice', 'tuning and intonation', 'metacognitive practice strategies', 'change and "A-Ha" moments' (Esslin-Peard et al., 2015, pp. 130-135). However, only few of the students address the 'artistic perspective of practice' (Jørgensen, 2008), and they speak only occasionally about practice as an enjoyable activity with feelings of flow. Instead, most understandings are rather in line with the more pragmatic definition of practice by Hallam (1997), defining practice as 'achieve[ing] the desired end-product, in as short a time as possible, without interfering negatively with longer-term goals' (Hallam, 1997, p. 181). Our findings are not in line with Rolfe (2006), whose participants are at first anxious and insecure, but at the end of term they write more positively and confidently. We observe rather the opposite: the students initially primarily express confidence and satisfaction in their practice outcomes and only later in the semester allow themselves to admit negative feelings and insecurity.

According to Zimmerman's (2002) model of self-regulation, students can actively reflect upon their self-generated thoughts, feelings and actions, which they can then adapt to attain their personal goals. Many students appreciate at the end that they are able to 'influence actively their personal agency and personal motivation to enact on the social setting and structures, in viewing self-regulation as an interaction between personal, behavioral, and environmental processes' (Nielsen, 2008, p. 19). Moreover, through the use of cognitive strategies such as rehearsal, elaboration, organisation and critical thinking aided the development of metacognitive self-regulation (Nielsen 2004). Main topics in the reflections refer to strategies of resource management, such as time-management, study environment, effort regulation, peer learning and help seeking, which are in line with findings by Nielsen (2004).

In conclusion, the reflections from the students' perspective demonstrate that with this seminar we are able to trigger changes in their approaches to self-regulation, and deliberate reflection could enhance the students' practice.

Challenges and limitations of the study

The reflective writings are addressed only in a private dialogue or with us lecturers. The students' instrumental teachers are not involved in these reflections. As Carey et al. (2018, p. 405) point out:

The danger here is that journals remain isolated from the teaching and learning context to which they relate (that is, the students' one-to-one lessons).

A more effective approach would be for teachers to engage with their own students' journals and use them to reflect on their teaching.

Furthermore, Carey and colleagues indicate that it is 'also apparent that teachers need support in learning to foster students' reflective abilities' (Carey et al., 2018, p. 406). We agree with Brown (2009) that by utilising reflective journals in a seminar, there is always a risk of reflections becoming merely confessions. In addition, it is difficult to distinguish whether students write exactly what they feel, think and experience or only what they assume the lecturers want to hear or read (see also Carey et al., 2017).

Scaffolding reflective writing

Research on reflective writing shows that students need support in learning to reflect (Carey et al., 2018; Coulson & Harvey, 2013). Coulson & Harvey (2013) posit that 'effective reflection for learning through experience requires a high level of introspection and open-minded self-analysis, a capacity for abstract learning, and self-regulation and agency that few students in higher education innately possess' (p. 1). However, support to develop these skills and practice of reflection will assist the students to a deeper level of reflection for learning through experience, as we also observe that there is indeed potential to learn reflection through the lecturers' scaffolding by structured development activities such as Bräuer's reflection model (2016). In addition, our guiding questions progressively increase abilities and agency (see also: Brown, 2009; Coulson & Harvey 2013).

Similar to reports by Hatton and Smith (1995), our students see verbal interaction and constructive dialogue to facilitate reflection as highly effective. All things considered, we recommend facilitators to provide theoretical background and structure, prepare for personal and time barriers, give samples, engage in verbal dialogue, encourage the students to be open and honest and be non-judgemental in facilitation.

We examined possible requirements to be considered for such seminars utilising reflective journals. First of all, building an atmosphere of trust and a safe framework for collaboration in the class is essential in order to provide meaningful possibilities for exchange and feedback but also for developing a shared understanding and context for reflection, where facilitating the development of the students' reflection skills will be possible. Furthermore, we emphasise that lecturers should be aware that facilitating reflection requires flexibility, openness and above all time in order to accommodate the students' individual needs. Finally, it is important to repeatedly

and frequently encourage the students and to give them reassurance that reflective writing can be learned.

Conclusion

So, did we enhance the practice of our students? As the reflections demonstrate, in some ways, yes. Our experiences and insights from last semester show that reflective writing does indeed foster consciousness about learning processes and can therefore enhance self-regulation skills, which in turn can lead to optimising instrumental practice. The development of our students' reflective writing shows maturation. However, we are not certain whether this maturation through reflection affected the students' actual practice or related only to the journals.

As learning to reflect is a reflexive and very individual process, we realise that it requires learning not only from the students, but also from us lecturers. We therefore decided to continue to explore the challenges and opportunities associated with this type of seminar in the coming semesters.

It has been said that musicians do not readily speak about their practice and personal experiences; they are seldom verbalised outside one-to-one teaching situations (e.g. Gaunt, 2008; Johansson, 2013). The following quote confirms the need we mentioned previously for higher education to focus more on the process of learning and not unilaterally on the outcomes of instrumental practice:

I think we musicians communicate too little about our practice. We talk a lot about music or about what we're practising but rarely about how we practice. (Student 10)

Acknowledgements

We would like to acknowledge the contribution of Karin Scaria-Braunstein and are thankful for her valuable feedback and comments on the early drafts of this paper. We also would like to thank our students for allowing us to use their written reflections for this research.

References

- Bonneville-Roussy & Bouffard, T. (2015). When quantity is not enough: Disentangling the roles of practice time, self-regulation and deliberate practice in musical achievement. *Psychology of Music, 43*(5), 686-704.
- Boud, D. (2009). Relocating reflection in the context of practice in H. Bradbury et al., (Eds). *Beyond Reflective Practice*, Abingdon: Routledge, pp. 25-36.
- Bräuer, G. (2000). *Schreiben als reflexive Praxis: Tagebuch, Arbeitsjournal, Portfolio*. Freiburg im Breisgau: Fillibach-Verlag.
- Bräuer, G. (2016). *Das Portfolio als Reflexionsmedium für Lehrende und Studierende*. Opladen & Toronto: Verlag Barbara Budrich.
- Brown, J. E. (2009). Reflective practice: a tool for measuring the development of generic skills in the training of professional musicians. *International Journal of Music Education, 27*(4), 372-382.
- Carey, G., Harison, S. & Dwyer, R. (2017). Encouraging reflective practice in conservatoire students: a pathway to autonomous learning? *Music Education Research, 19*(1), 99-110.
- Carey, G., Coutts, C., Grant, S., Harrison, S. & Dwyer, R. (2018). Enhancing learning and teaching in the tertiary music studio through reflection and collaboration. *Music Education Research, 20*(4), 399-411.
- Chaffin, R. & Imreh, G. (2001). A comparison of practice and self-report as sources of information about the goals of expert practice. *Psychology of Music, 29*, 39-69.
- Coulson, D. & Harvey, M. (2013). Scaffolding student reflection for experience-based learning: a framework. *Teaching in Higher Education, 18*(4), 401-413.
- Cowan, J. (2013). Facilitating reflective journaling – personal reflections on three decades of practice. *Journal of Learning Development in Higher Education, 5*, 1-17.
- Duffy, C. (2016). ICON: Radical professional development in the conservatoire. *Arts and Humanities in Higher Education, 15*(3-4), 376-385.
- Ericsson, K. A., Krampe, R. T. & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review, 100*(3), 363-406.
- Esslin-Peard, M., Shorrocks, T. & Welch, G. F. (2015). The art of practice: Understanding the process of musical maturation through reflection. In A. Niessen and J. Knigge (Eds.) *Theoretische Rahmung und Theoriebildung in der musikpädagogischen Forschung* (pp. 125-145). Münster; New York: Waxmann.
- Gaunt, H. (2008). One-to-one tuition in a conservatoire: the perceptions of instrumental and vocal teachers. *Psychology of Music, 36*, 215-245.

- Gruson, L. M. (2000). Rehearsal skill and musical competence: Does practice make perfect? In J. A. Sloboda (Ed.) *Generative processes in music* (pp. 91-112). Oxford: Clarendon Press.
- Hallam, S. (1995). Professional musicians' approaches to the learning and interpretation of music. *Psychology of Music*, 23, 111-128.
- Hallam, S. (1997). What do we know about practising? Towards a model synthesising the research literature. In H. Jorgensen and A. Lehmann (Eds.) *Does practice make perfect? Current theory and research on instrumental music practice* (pp.179-231). Norwegian Academy of Music.
- Hatton, N. & Smith, D. (1995). Reflection in teacher education – towards definition and implementation. *Teaching and Teacher Education*, 11(1), 33-49.
- Hewitt, M. P. (2011). The impact of self-evaluation instruction on student self-evaluation, music performance, and self-evaluation accuracy. *Journal of Research in Music Education*, 59(1), 6-20.
- Hume, A. (2009). A personal journey: Introducing reflective practice into pre-service teacher education to improve outcomes for students. *Teacher and Curriculum*, 11, 21-28.
- Hübner, S., Nückles, M. & Renkl, A. (2010). Writing learning journals: Instructional support to overcome learning-strategy deficits. *Learning and Instruction*, 20, 18-29.
- Johansson, K. (2013). Undergraduate students' ownership of musical learning: obstacles and options in one-to-one teaching. *British Journal of Music Education*, 30(2), 277-295
- Jørgensen, H. (2000). Student learning in higher instrumental education: who is responsible? *British Journal of Music Education*, 17(1), 67-77.
- Jørgensen, H. (2004). Strategies for individual practice. In A. Williamon (Ed.) *Musical excellence* (pp. 85-103). Oxford: Oxford University Press.
- Jørgensen, H. (2008). Instrumental practice: quality and quantity. *Finnish Journal of Music Education*, 11(1-2), 8-18.
- Larrivéé, B. (2000). Transforming teaching practice: becoming the critically reflective teacher. *Reflective Practice*, 1(3), 293-307.
- Leon-Guerrero, A. (2008). Self-regulation strategies used by student musicians during music practice. *Music Education Research*, 10(1), 91-106.
- Macnamara, B. N., Hambrick, D. Z. & Oswald, F. L. (2014). Deliberate practice and performance in music, games, sports, education, and professions: A meta-analysis. *Psychological Science*, 25(8), pp. 1608–1618.
- McPherson, G. E. & Renwick, J. M. (2001). A longitudinal study of self-regulation in children's musical practice. *Music Education Research*, 3(2), 169-186.

- McPherson, G. E. & Zimmermann, B. J. (2011). Self-regulation of musical learning: A social cognitive perspective on developing performance skills. In R. Colwell and P. R. Webster (Eds.) *MENC handbook of research on music learning. Volume 2: Applications* (pp. 130-175). Oxford: Oxford University Press.
- Miklaszewski, K. (1989). A case study of a pianist preparing a musical performance. *Psychology of Music, 17*, 95-109.
- Miksza, P. (2007). Effective practice: An investigation of observed practice behaviors, self-reported practice habits, and the performance achievement of high school wind players. *Journal of Research in Music Education, 55*(4), 359-375.
- Nielsen, S. G. (1999). Learning strategies in instrumental music practice. *British Journal of Music Education, 16*(3), 275-291.
- Nielsen, S. (2001). Self-regulating learning strategies in instrumental music practice. *Music Education Research, 3*(2), 155-167.
- Nielsen, S. (2004). Strategies and self-efficacy beliefs in instrumental and vocal individual practice: a study of students in higher music education. *Psychology of Music, 32*(4), 418-431.
- Nielsen, S. G. (2008). Instrumental practising and self-regulation: A social cognitive perspective. *Finnish Journal of Music Education, 11*(1-2), 19-25.
- Rolfe, L. (2006). Using learner journals in teacher education in the arts. In P. Burnard and S. Hennessy (Eds.) *Reflective practice in arts education* (pp. 95-106). Dordrecht: Springer.
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Schön, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. San Francisco: Jossey-Bass.
- Williamon, A. & Valentine, E. (2000). Quantity and quality of musical practice as predictors of performance quality. *British Journal of Psychology, 91*, 353-376.
- Williams, S. (2017). *Quality practice. A musician's guide*. Retrieved from: http://www.hfm-detmold.de/fileadmin/lia_hfm_2014/pool/Netzwerk_MuHo_Williams_UEben_manual_EN.pdf
- Zimmermann, B. J. (1986). Becoming a self-regulated learner: Which are the key subprocesses? *Contemporary Educational Psychology, 11*, 307-313.
- Zimmermann, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory Into Practice, 41*(2), 64-70.