Final assessment in teacher education: innovations for better learning experiences

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ABSTRACT. Learning assessment is an essential part of the educational process, and it is even more important when dealing with Teacher Education courses. Assessment procedures will be present throughout the future teaching career of students and, moreover, can be understood as another opportunity for knowledge construction, either in the preparation for exams or as practical experience. The educational practices of Teacher Education courses need to be in constant innovation to ensure that the educational quality extends to the schools. The present article brings the first findings of an Action Research in Education that aims to promote improvements in the final evaluation of a Pedagogy course. The text is structured in a reflexive-propositional dialogue of students and examiners' speeches with the scientific literature about the theme. In this first phase of the qualitative research, semi structured interviews were carried out with eight Pedagogy students and five examiners in the same course. The results identified two main issues: psychological suffering of students and lack of information about the final assessment. From that, changes in the assessment process of the course were put into practice to follow up the action research that, currently, is in the second moment of evaluation with students who are going through the final assessment with new practices.

Keywords: higher education; teacher education; educational evaluation; action research; psychological factors.

Avaliação final no curso de Pedagogia: inovações para melhores experiências de aprendizagem

RESUMO. A avaliação da aprendizagem é parte essencial do processo educativo e é ainda mais importante ao se tratar de cursos de licenciatura. Procedimentos avaliativos estarão presentes ao longo da futura carreira docente de estudantes e, além disso, podem ser entendidos como mais uma oportunidade de construção de conhecimentos, seja na preparação, seja enquanto experiência prática. As práticas educativas de cursos de licenciatura precisam estar em constante inovação para garantir que a qualidade educacional se estenda até às escolas. O presente artigo traz os primeiros achados de uma Pesquisa Ação em Educação que objetiva promover melhorias na avaliação final de um curso de Pedagogia. O texto se estrutura em um diálogo reflexivo-propositivo de falas de estudantes e examinadoras com a literatura científica acerca do tema. Nesta primeira fase da pesquisa qualitativa foram realizadas entrevistas semiestruturadas com oito estudantes de Pedagogia e cinco avaliadoras de exames finais no mesmo curso. Os resultados identificaram duas questões principais: sofrimento psicológico de estudantes e falta de informação sobre a avaliação final. A partir disso, mudanças no processo avaliativo do curso foram colocadas em prática para dar seguimento à pesquisa ação que, atualmente, se encontra no segundo momento de avaliação com estudantes que estão passando pela avaliação final com novas práticas.

Palavras-chave: educação superior; formação docente; avaliação da aprendizagem; pesquisa-ação; fatores psicológicos.

Evaluación final en el curso de Pedagogía: innovaciones para mejorar las experiencias de aprendizaje

RESUMEN. La evaluación del aprendizaje es una parte esencial del proceso educativo y es aún más importante cuando se trata de cursos de formación de profesorado. Los procedimientos evaluativos estarán presentes a lo largo de la futura carrera docente de los estudiantes y, además, pueden entenderse como una oportunidad más de construcción de conocimiento, ya sea en la preparación o como experiencia práctica. Las prácticas educativas de los cursos de formación de profesorado deben estar en constante innovación para garantizar que la calidad educativa se extienda a las escuelas. El presente artículo aporta los primeros

resultados de una Investigación Acción en Educación que pretende promover mejoras en la evaluación final de un curso de Pedagogía. El texto se estructura en un diálogo reflexivo-propositivo de los discursos de los alumnas y evaluadoras con la literatura científica sobre el tema. En esta primera fase de la investigación cualitativa se realizaron entrevistas semiestructuradas a ocho estudiantes de Pedagogía y a cinco evaluadoras de exámenes finales del mismo curso. Los resultados identificaron dos problemas principales: el sufrimiento psicológico de los estudiantes y la falta de información sobre la evaluación final. A partir de ahí, se pusieron en práctica cambios en el proceso evaluativo del curso para dar seguimiento a la investigación-acción que, actualmente, se encuentra en el segundo momento de evaluación con las alumnas que están pasando por el examen final con nuevas prácticas.

Palabras clave: enseñanza superior; formación de docentes; evaluación de la educación; investigación-acción; efectos psicológicos.

Introduction[1]

Differently from other knowledge areas, students of Teacher Education courses experience structures and practices similar to the ones they will encounter and establish in their future profession. Therefore, when promoting pedagogical practices, Teacher Education courses should pay closer attention to the chosen pedagogical approaches. Pre-service teachers tend to choose topics and pedagogical methods similar to the ones they experienced during their studies (Kim & Pratt, 2021). In other words, if Teacher Education courses are grounded in conventional pedagogical practices, it is most likely that the pre-service and in-service teachers will carry on the same conventional practices when teaching, instead of choosing to pursue and develop innovative approaches.

Another aspect that influences the choice of pre-service teachers' teaching approaches is the comprehension they have about knowledge production. Pre-service teachers who believe that there is only one acceptable and rightful method of producing knowledge tend to lean towards conventional teaching practices. On the other hand, pre-service teachers who understand that there are other possibilities for learning and knowledge production, and that students' active participation is important in the process, tend to choose less conventional teaching practices (Tezci, Erdener, & Atıcı, 2016).

Assessments are an essential part of the educational process because they can provide information regarding students' comprehension and difficulties (Kruit, Oostdam, van den Berg, & Schuitema, 2020). There are different structures and possibilities of assessment in educational settings. Nowadays, maybe the most common notions of assessment are three: assessment of learning, assessment for learning, and assessment as learning (Schellekens et al., 2021). The first one is the most common understanding of assessment, as an attempt to measure what the students learned. This attempt is usually related to tests or other similar approaches and has some issues:

> [...] giving all students the same task is not the same as giving them equal opportunities to show what they understand or can do. This becomes clear when looking at test items. The subject matter used to pose a question, the language used, the amount of reading and writing involved and familiarity with the test situation are among the many factors that will advantage some students and disadvantage others. Research clearly shows how students' performance is influenced by the situation or context in which the task is set – students perform differently in different situations, and especially low-performers benefit from rich, authentic assessment situations (Dolin and Krogh, 2012). Other well-known problems with tests stem from the necessarily limited number of items that can be included, meaning that, as pointed out above, a selection of contexts and problems has to be made and that a different selection is likely to lead to different results. Further, when test results are used for high stakes judgements, of students, teachers or schools, the tendency to 'teach to the test' in striving for high scores has a narrowing impact on the curriculum content and on pedagogy (Dolin, Black, Wynne, & Tiberghien, 2017, p. 15).

Conversely, at most educational settings, it is common to find assessment practices related to testing and grading students. In such situation, assessments are commonly understood as evaluations in which students should not make mistakes, otherwise, they will not be able to pursue new educational steps or a diploma (Sharp & Theiler, 2018). Testing and other similar approaches require students to achieve content's mastery. This may lead both students and teachers towards a pedagogical path that will focus on students proving themselves rather than having your learning process assessed.

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The power dynamic in educational contexts is set by an epistemological perspective where teachers and the so-called academic literature are the legitimate knowledge sources (Restrepo, 2020). In these circumstances, instead of working as a teaching-learning tool for both teachers and students, the assessment at these power dynamic contexts becomes something to be feared of and students often employ memorization or other studying techniques focused on the assessment topic and style and not the content itself. These approaches may also be employed by teachers, which may hinder even more a process of meaningful learning. One example of approach that diminishes learning opportunities is the fact that, when answering to tests, students tend to look for answers instead of reading full texts and having a whole understanding of the topic by using multiple choice questions (Kayarkaya & Unaldi, 2020).

In the context of higher education, assessment demarks both the beginning and the end of the studies, with the entrance exam, the final exams of every course and the defence of the monograph, thesis, or dissertation. Higher Education students have a high rate of psychological suffering in different fields of study, and a considerable part of the psychological distress is due to preparation for assessments and their results (Gadosey, Schnettler, Scheunemann, Fries, & Grunschel, 2021; Sharp & Theiler, 2018). In this paper we will discuss the final assessment in Teacher Education in the Czech Republic.

Czech Republic has a culture of Final State Exams (FSE) in different educational levels, from High School to PhD. Apart from being approved in all subjects and, in the case of Higher Education, in the defence of the final projects, if students are not approved in the FSE, they will not be entitled to the diploma. Teacher Education courses have different FSE for each area of study, which means that, to become Primary School teachers, students need to be approved in all classes, at their Master thesis and at the FSEs of Czech Language and Literature, of Mathematics, of Pedagogy and Psychology, and of Arts or Physical Education. The research presented at this paper regards one of these areas, but it will not be disclosed to avoid identification of the participants.

One important aspect of every FSE, from different educational levels, is that it should be an Oral Defence. If carried out in a good atmosphere environment, this assessment approach allows students to better organize and express their understandings while examiners can have a better screening of students' development (Theobold, 2021). Although it is a national educational practice required by educational law (MŠMT, 1998) each higher education institution has the autonomy to define how the Final State Exams will take place.

Additionally, Faculties and Departments design their own FSE according to the national and institutional regulations. The FSE of this specific area had two variations: portfolio and questions. In the first one, students would produce a portfolio containing different moments and aspects of their study and teaching together with their own reflections. If the portfolio was previously accepted by the commission, the student would answer questions about it at the FSE. The second possibility, called circuit, would be to draw two questions from a set of 25 topics and answer them. If a portfolio was not accepted, then the student would have to have the oral test with questions. The 25 topics were part of a document with a short description of each topic including keywords and a reference list. Each student has two chances to be approved at each FSE.

Methodological procedures

The context of this qualitative research was a Teacher Education course in the Czech Republic. The department in which this research took place was undergoing a process of improving their Final State Exams, turning them into a pedagogical moment that could, at the same time, assess students' theoretical-practical knowledge, while providing a good pedagogical experience.

The participants were eight students from the final year taking their Final State Exam in a specific area, and five teachers from the same area who were examiners of the same students. Students' ages were between 21 and 45 years old. All of them were female, three of them were enrolled in partially presential Teacher Education course and five of them in fulltime Teacher Education course. To ensure anonymity, students will be referred by the letter S followed by a number attributed to each one (S1, S2... S8). The reference to examiners quotes will follow the same pattern, being referred to by the letter E (E1, E2...E5). Regarding the participants' selecting procedures, all the students received an e-mail inviting them for the research and the ones who replied were registered at the research process. All the main examiners of the department participated on the research. The research was approved by the Ethical Committee of the Higher Education Institution and the participants signed an Informed Consent Statement. There was no relation between the participation at the research and the Final State Exam. Different people were in charge of each action and the first results were only shared with examiners after the students were approved. Also, the examiners were interviewed only after the students were approved.

Semi-structured interviews were carried out for data gathering. Each interview had a minimum length of thirty minutes. The students were interviewed twice, before and after their FSE and the examiners were interviewed just once, after the FSE. One student asked not to be interviewed for the second time because she failed at her first attempt at the FSE. Students' interviews happened during the months of April and June 2021 and examiners were interviewed between January and early March 2022. The semi-structure of the interview included the following questions:

> What are the abilities/contents you think you should have learned in the last 5 years to become a good teacher?
> How was your learning assessed at University? It was according to what the pedagogical theory says about assessments?
> What are your feelings and thoughts about [name of the study area] FSE?
> What competencies do you think should be assessed at [name of the study area] FSE?
> Any extra comments about the [name of the study area] FSE?

Because of its semi-structured dynamic (Brown & Danaher, 2019), different topics were brought up by students and examiners during the interviews. The students spoke about preferred approaches for learning, about different experiences lived during their studies and about the Final State Exam of different areas. The examiners spoke about their processes as thoughts as students and as examiners, and they also approached specific topics about the structure of the exams. Using thematic analysis approach (Norton, 2008), the main themes about the FSE that emerged in their discourse were three: psychological suffering, lack of information and the distant connection between theory and practice.

The first theme includes topics about fear, stress, psychological distress, and negative feelings students were struggling with. This matter was mentioned by all the participants, both students and examiners, and it came up as a very important issue regarding the FSE. We will address this specific topic and the approaches made at the action research to improve students experience and learning processes.

The second theme was brought up only by students and includes information regarding the portfolio and the FSE, and about the prolonged time waiting for examiners decision on the portfolio approval. Although it will not be discussed in depth, changes made during the action research regarding this situation were related to diminishing psychological suffering and will be discussed here.

The distant connection between theory and practice was a frequent topic brought up by students as well as by examiners. Specific research is currently being designed to address those issues and to suggest pedagogical changes that might promote a better understanding of theory and practice being part of one single process.

This paper derives from a Pedagogical Action Research (Norton, 2008), where analysis and interventions took place during an ongoing process. Therefore, the sessions of results and analysis will be shown together, approaching the themes that were brought up by students and by examiners in a linear form.

Psychological suffering

All the students mentioned psychological distress and negative feelings towards the Final State Exams. These feelings were not exclusively directed towards the pedagogical exam, but from different areas of study. One example of those feelings can be found on the following quote:

> The FSE should be friendlier, you know? All this stress… my stomach… I cannot eat… Why am I so afraid of doing this? I've already done lots of exams and know I am afraid that they don't let me be a teacher (S1)

Examiners also brought up the issue of psychological distress. All of them reported their own past experiences as students taking the FSE and feeling somehow the same as the students from nowadays:

> I felt the same as all of our students feel today: fear (E4)
> I was scared about who was going to be at the examiner commission, but in the end, it was quite good, and I had a good feeling about that. I was nervous and stressed, as everyone else (E2)

Being afraid of the Final State Exam is recognized as part of the culture. Students have felt the same way for generations. Because of the perception that some things are supposed to be the way they are, improvements and changes are not sought out. Although resilience may be an important attribute, it can ignore vulnerabilities as well as help to perpetuate a negative situation (Mahdiani & Ungar, 2021). From the E2 quote, it can be perceived that who is going to be at the examiners commission takes a significant part of both the fear prior to the exam and the possible relief after it. It is interesting to note that the exam itself was good for most part of the interviewed students:

> I must say that I'm glad it's over. Before the exam, I had been really stressed out. Because I thought that I didn't learn enough to pass this exam. But the exam was surprisingly good and fair, I would say. So, I'm glad that it was like that (S4).

The data show that the examiners from this specific department are establishing, in general, good educational relationships with students during the exam. From the total of seven students who were interviewed after the FSE, only one did not report a good experience with the Pedagogical FSE. The others either mentioned the difference between feelings before and after taking the exam or just expressed good experiences with the commission and the exam. When the student S4 states that she was surprised the exam was good and fair, it means that she thought it was not going to be good nor fair, this relates not only to content but to examiners as well.

The establishment of a good relationship with examiners during the Pedagogical exam was pointed out by five students. One reported a bad experience during the same exam and the other student did not mention this aspect. This fact reinforces the idea that it is mainly a relationship issue between students and examiners. The quotes below illustrate both situations:

> I think it was very nice, because we have very good people in the commission. And I think it was very good. Unfortunately, I had the most difficult question in the Pedagogic exam. Not the most difficult, but not very nice for me. But they, they were able to help me with it. (S7).

> It was very confusing because I picked this question and I started to prepare it. It was about time and history, exact time in the history. And I prepared something about that time, but not the exact things. I did with the things I remembered. And she came and she just said "No, this is too early, this is too late. I want to know this, this and this". She helped me a little bit, but at the same time, she really scared me because she wanted everything detailed (S3).

The commission of examiners has an important part on the assessment process since the atmosphere of the exam has a drastic impact both on grades and on diminishing stress and anxiety (Hsu & Goldsmith, 2021). Having a good atmosphere at the exam provides opportunity for learning during assessment, once students can be led to new reflections and connections, which likely happened in the situation described by S7. Four out of the five examiners mentioned the importance of a good atmosphere during the exam and the issue can be perceived in the two quotations bellow, the first from an examiner and the second one by a student:

> If I am working with people that I feel safe and that I see they treat the student with respect, it is good. I always feel that people are stressed out and I am always trying to create a good atmosphere, make something so that the atmosphere is easier. Portfolio could be a great tool, but if there are people who are not asking students the right questions, it does not help the students. It is really like an art. You have to listen to the students, and you have to understand how they are thinking and help them to express themselves (E3).

> I came inside and was really worried [...] and the teacher said: "You look really green. So don't worry, we are just, you know, trying to finish our five years together in a nice way." And she calmed me down and said: "You don't have to be great today. We are not kicking people off the exam". It really helped me (S1).

Assessment is part of the learning process, not an isolated moment whose sole existence is linked to measuring specific skills from students. Therefore, a circumstance such as a Final State Exam can be used as summative assessment, at least to some extent, by promoting two criteria established by Black and William (2018): interactive dialogues and support for learning. Although it was mentioned by an examiner that: "It is an exam situation, so the students won't actually learn anything new" (E5), she continued the sentence saying that "they might realize new connections during it" (E5). Therefore, the FSE can be a moment for reflection and learning. The quotes above mention the opportunity for dialogue instead of inquiry and, therefore, learning. When S1 recalls her FSE, it can be perceived as a collective experience on which examiners and examinee are not on opposite sides, but walking together on a learning path. Making new connections can be an opportunity for developing new knowledge and if this dialogue happens in a good atmosphere and promotes students' reflection, there will be learning and development.

The occurrence of feelings related to psychological suffering in students was mentioned by examiners. Two of them highlighted concern about the issue and about their attitude towards students. One example is the following:

> I can imagine that students are nervous and stressed. To be sincere, I don't think I would be good in answering all the questions which other examiners do. Some questions I do not know how to answer. So, I think I feel empathic with students, but on the other hand I think that I am not willing to express a lot of understanding for stress. I think they must manage some stress, so I think I have empathy for them. But - I don't know if I am right – but I don't like

to talk much about this stress, I just have a face like "yes, you are under this situation, but let's go and concentrate, not talk about these issues". [...] I hope I don't express that I think terrible things about people who don't have good answers or good results. I hope it is visible on me that I do not evaluate the people, I hope they understand I support them to reflect about somethings which they could learn more or experience more (E1).

Although common belief considers fear and stress as necessary for students to engage in their studies, these feelings do not contribute for learning. On the contrary, high levels of stress diminish students' performance (Cardozo et al., 2020). Although fear of failure may act as an extrinsic motivation source for studying (Nakhla, 2019), only a specific profile of students will engage in deep learning. Moreover, extrinsic motivators involve psychological distress, leading to less effective learning in women, because of social constructs (Zaccone & Pedrini, 2019). The authors emphasise the importance of enhancing intrinsic motivation and diminishing extrinsic motivation in female students. This is a significant information considering that teacher education courses, especially for early childhood and primary education, are mainly attended by women.

Similarly, the belief that students need to experience stress to be able to cope with stress that they will face during their careers, is not accurate. Decrease in stress is strongly related with higher self-esteem (Galanakis, Palaiologou, Patsi, Velegraki, & Darviri, 2016). Moreover, teachers with higher self-confidence have higher - and better - classroom management skills (BAŞ, 2019). Consequently, pre-service and in-service teachers benefit from learning and assessment environments that promote students' self-confidence and self-esteem, not from stressful settings and situations.

The idea that university students should keep coping with power structures and situations that are unpleasant to them can be understood as a justification for maintenance of subalternizing situations (Aubrecht, 2013). In addition, three examiners mentioned the importance of students knowing how to cope with stressful situations. When students are afraid of an exam, there is a situation of power struggle, where students are perceived (and perceive themselves) as not having enough knowledge. Their potential failure will be decided by the examiners, who, in some situations, may consider that the lack of emotional skills is a failure of the student, instead of observing and understanding how the whole educational context is promoting this psychological distress (Williams-Brown, & Mander, 2021).

Finally, if students fear bad grades and failures, they might prepare themselves for the assessment, but that does not mean they are learning the content. One example of such occurrence can be found in the following quotation:

I can learn lot of information in a short time and I'm really good in forgetting them as well. So, yes, I can learn all this information for the final state exam in two days and it would be ok and then I would forget them in about two hours, maybe. For me it is not useful to spend my brain in this way (S4).

Studying practices connected to memorization, common at school-life, are carried out during university because students do not have tools and knowledge to engage in metacognitive strategies (Muteti et al., 2021). The prevalence of rote memorization, content fragmentation and lack of reflection are obstacles for effective learning (Entwistle, Thompson, & Tait, 2020). Consequently, assessments that require reflection, discussion, and establishment of connections of content with real life may help promoting effective and meaningful learning. Moreover, these kinds of assessment can enhance students' purpose and motivation, which are also considered necessary to achieve effective learning.

Information

There is a common understanding that information about assessment should be, to some extent, hidden from students. This perspective is grounded on a misbelief about students' interest and engagement in their own learning. Therefore, a learning verification process (an assessment) is considered 'good' if it is difficult and if it addresses something obscure that students cannot identify or remember. This comprehension may lead to students focusing on memorizing many topics instead of properly learning what is important for them, and therefore they fail to engage in the metacognitive strategies aforementioned by Muteti et al. (2021).

Of the eight students who were interviewed in April 2021, seven expressed not having enough information about the Final State Exam. Some students had doubts specifically regarding the exam:

I don't even know what awaits me. I don't even know what I'm getting into. I don't know what form it will take. [...] So now I really don't know how it will take place. Whether it will be done in the form of a response to a pedagogical situation or that I will just talk like a high school graduate about an issue. I really don't know what to learn properly (S2).

The majority of them, six students, wished to have had more information about the portfolio. The department offered a course regarding it, but the course was offered only for students who specifically registered for a whole block of elective courses. Furthermore, until that moment there was no specific framework for the design of the portfolio.

> They never said exactly how the portfolio should be. During this time, I watched some videos online explaining about hot to make portfolios and it was all the time the same. Then I got the feeling that maybe nobody knows how to do a perfect portfolio...It is just that what I got of information, I got from Facebook, from our group, or from my friends: what they heard or something. So, it's only how I imagine it is. I think if we were told about this, how it would be like, the questions and all, it would be easier (S3).

Explicit information about assessment is important not only for students to achieve better grades but also to enhance their motivation and to promote a better learning environment. Information about the assessment goals, when structured in the form of rubrics, can help students and teachers engage in reflective practice. Rubrics consist of detailed information about learning achievements and the grades (in numbers, letters, or qualitative descriptors) related to each type of performance achieved by students. By using rubrics, teachers have the opportunity to think through their expectations and how these can be achieved by their pedagogical practices. Students can use the rubric for self-assessment and peer-assessment, identifying learning paths and raising awareness about their actions as students (Allen & Tanner, 2006).

Moving forward in the matter of rubrics for learning assessment in higher education, Kilgour, Northcote, Williams and Kilgour (2020) showed the importance of co-constructing rubrics with students in a collaborative way. The authors present important contributions of designing rubrics cooperatively both students' and teachers' perspectives:

> (1) improvements in student learning and understanding of assessment tasks and rubric use;
> (2) an increase in ownership of the learning process by students;
> (3) students gained insight into the role of the teacher, understanding the complexity of designing assessments, and appreciating the time that is involved in creating meaningful learning experiences;
> (4) students largely felt that engaging in the process of rubric co-construction had broadened their understanding of rubrics and the whole assessment process.
> (5) the co-construction process engaged students in the whole learning process.
> (6) it made the assessment process fairer, simpler and less subjective (Kilgour et al., 2020, p. 150-151).

The authors also acknowledge that there is still a long path of development and improvement to be achieved regarding rubrics for assessment. Those are mainly institutional and administrative issues, but there are also pedagogical aspects that need finetuning. Nevertheless, we want to highlight the last two topics (5 and 6) cited above: Firstly, when participating in designing the learning goals and expectations, students actively took part on the learning process, enabling more meaningful learning. Secondly, the information about the assessment process was not only disclosed but discussed and established together. This procedure was important to establish trust in the assessment process. The lack of trust is a common situation in Higher Education settings. Students are constantly concerned about the grades they will get, the possible bias that will exist in correcting the tests, and often they do not find the learning atmosphere to be open for doubts, discussion, and collective learning (Dolan, Arnold, & Green, 2019). On the other hand, it is common that teachers do not trust their students and assume that they are not interested in learning and developing. This misconception is more frequent in relation to learning assessments, which are designed to be difficult and with some surprise element. If teachers do not trust students, and students do not trust the educational system, this issue must be addressed and improved.

Good communication among all the educational setting participants is essential. When describing the characteristics of the ideal teachers, out of the five most valued aspects, three were related to communication: express him/herself clearly, be able to listen, and having fluency in speech (Pozo-Muñoz, Rebolloso-Pacheco, & Fernández-Ramírez, 2000). Poor communication among teachers and students is connected with students' poor performance (Albalawi & Nadeem, 2020) and may trigger negative emotions on students (Mazer, McKenna-Buchanan, Quinlan, & Titsworth, 2014).

The COVID-19 pandemic contributed to difficulties in communication, since formal and informal meetings with colleagues and teachers moved to an online environment for most part of their last year of studies. Students were looking for information at social media groups, which caused more anxiety because there were spreading misinformation and doubts. Remarkably, misinformation and disinformation in social

media were predominant in COVID-19 times, leading to anxiety, fear, stress and other psychological – and public health - challenges (Ecker et al., 2022).

Another aspect of the uncertainties regarding the process of the Final State Exam, was the time gap between the submission of the portfolio and the disclosure of its acceptance. This fact was reported by all the students who submitted their portfolios and even by those who did not, but saw it happening with colleagues:

> We don´t know the commissions, so we are still in some uncertainty. And I know that the ones who had portfolio were very nervous because last week they send whose portfolio is accepted and whose is not. So, I know that last week my friend was waiting for results and it wasn´t accepted, so she was very sad from it for a whole week. There are so many steps till we get to the FSE so we are still nervous and do not have the peace for studying (S5).

> I am really afraid I will just be waiting for the last moment and then don't get so in deep as I would like too. And I will not be so self-confident as I could be if I had prepared well and so on. And this for the pedagogical part, but for all other parts as well. In specific about the pedagogical part, it is really uncomfortable to wait (S4).

The feelings concerning suffering and psychological distress were enhanced by the lack of information as well as the time waiting for answers. If the portfolios were not accepted, the student would need to go through the oral test with two sorted questions, without much time for preparation. Although cramming is a frequent study approach of university students, this strategy is more oriented to avoid mistakes and failing instead of learning and understanding content (Geller et al., 2017). Even when focusing on grades, the authors' findings show that the higher grades were achieved by students who engaged in longer study plans. Moreover, specifically in the context that most of students have at least three FSE from different areas within a short timeframe, time management may be an issue for students to prepare themselves, either aiming at learning or at successful exam results.

Actions and new pathways

All the actions taken were either suggested by students and examiners or based on their demands. The quotes discussed here aimed to illustrate the main topics and aspects brought up by the participants and are only samples of the research findings.

In March 2022, two months prior to a new Final State Exam, a meeting was held with all the examiners. Suggestions for changes were discussed and modifications were made in the process prior and also during the FSE. The changes and adjustments were put in practice already for the following Final State Exam and will be explained in detail bellow.

Regarding the lack of information about portfolios and about the Pedagogical FSE itself, information was provided in different ways. In October 2021, criteria for the portfolio were finalized (Tables 1 and 2) and advertised at the department webpage. In that same term, an elective course was offered regarding the portfolio and because it was not accessible to all students, an online meeting as organized in February 2022 with an examiner and former students to clarify doubts and help students to produce better portfolios. Thirty-seven students joined the live meeting, and it was recorded and advertised at the department webpage. The elective course was structured in eight sessions on which the twenty-six students were guided to produce parts of their materials with the help of two teachers and their peers. The focus of the course was on the content of the Reflection Quality Criteria (displayed on Table 2), because students were facing difficulties on writing critical reflections. The students were used to make descriptions of their experiences and attribute adjectives to them, not going further developing critical thinking abilities, which are of the utmost importance on Teacher Education (Lorencová, Jarošová, Avgitidou, Dimitriadou, 2019).

The tables displayed bellow have the same structure that is available on the website of the course. Their purpose was not only to display the criteria in a clear way but also to allow students to perform their self-assessment through a checklist, especially regarding the first table. The second table was designed in a first attempt to provide rubrics to the Final State Exam.

Also related to providing information, an e-mail was sent to all the students before the exams with clear and detailed instructions regarding the FSE, such as what was expected from the students, the deadlines both for submissions and for feedback, and about the procedures prior to it and on the day of the exam. The e-mail also contained encouraging message about their studying trajectories. We emphasize two excerpts of the message:

> The Final State Exam is one of the most important parts of your studies, but keep in mind that you have come a long way and that some of you are already working as teachers. We know that stress and fear are not good for learning.

We want the FSE to be just another opportunity to show your knowledge in a professional dialogue with us and end of your studies at the Faculty of Education with a good feeling.

Keep in mind that we are interested in more than just what you can learn by heart. We are interested in how you can connect theoretical knowledge and practical experience, argue your own opinion, independently talk about the topic, and respond in a discussion. We are also interested in what literature you have read about the given circuit.

Table 1. Conditions for Portfolios' Acceptance.

To accept a portfolio, these conditions must be met (For admission, 7 out of 10 items in the checklist must be rated as YES):		
The portfolio includes 25-30 materials	YES	NO
The materials cover at least 50% of the state exam topics (one material can cover more than one topic).	YES	NO
Each inserted set of materials is accompanied by reflection.	YES	NO
In the reflection, it is argued why the material was selected for the portfolio.	YES	NO
The portfolio contains a variety of materials that are connected with the state exam areas. (For materials, it is indicated which topic it refers to.)	YES	NO
The inserted materials are diverse in terms of content and form (reflected preparation of lessons, excerpts from lectures, professional articles, interview, video recording of own lessons...).	YES	NO
The portfolio lists the resources with which the student has worked. Resources are linked to the content of the portfolio.	YES	NO
Each inserted material is dated (semester and year).	YES	NO
If the material is linked to a course, the name of the course is listed.	YES	NO
The portfolio has a clear structure that helps to orient oneself in it.	YES	NO

Note. From "Informace o Studiu: Státní závěrečné zkoušky učitelství pro I. stupeň ZŠ", by the Department of Pre-primary and Primary Education at the Faculty of Education, Charles University (Retrieved from https://kppp.pedf.cuni.cz/wp-content/uploads/2023/09/Hodnocen%C3%AD-st%C3%A1tnicov%C3%BDch-portfoli%C3%AD_n%C3%A1vrh-se-%C5%A1k%C3%A1lou.pdf) (translated from Czech by the authors).

Table 2. Reflection Quality Criteria.

The quality of the reflection will be judged according to the following criteria (for admission it is necessary to obtain a rating on the 'green part[2]' of the scale in at least 5 of the following 7 items):				
Reflection Quality Criteria	always	often	rarely	never
The inserted materials are reflected with the support of the theory.				
Each material states why the material is important to the student and how it moves him or her on his/her path to becoming a teacher.				
Reflections show that the student thinks in context and can generalize.				
The materials are reflected from several different points of view and perspectives (in relation to themselves, to the pupil, to the Strategy of Education Policy 2030+...).				
In the reflections, alterations to act are given (where appropriate).				
The reflections themselves are logically structured, the thoughts follow each other, the reflection contains the introduction, the middle and the conclusion.				
The material is reflected from the current point of view (e.g. not only a reflection on the material from the 2nd year is inserted, but also from recent times).				

Note. From "Informace o Studiu: Státní závěrečné zkoušky učitelství pro I. stupeň ZŠ", by the Department of Pre-primary and Primary Education at the Faculty of Education, Charles University (Retrieved from https://kppp.pedf.cuni.cz/wp-content/uploads/2023/09/Hodnocen%C3%AD-st%C3%A1tnicov%C3%BDch-portfoli%C3%AD_n%C3%A1vrh-se-%C5%A1k%C3%A1lou.pdf) (translated from Czech by the authors).

To explicitly inform students about the exam criteria contributes for better learning as well as better assessment. When students are not aware of examiners' expectations, they may not fulfil those expectations not because of lack of knowledge, but lack of information. One possible next step will be to formulate and provide full rubrics (Allen & Tanner, 2006) based on the already developed portfolio criteria, key-content for the test and the explicit information on e-mail.

Another change was to allow students to use their portfolios to illustrate their answers, even if the portfolio was not accepted. Though the portfolios will not be used to search for answers, this procedure promotes a safer atmosphere because students know they have a backup support that can help them exemplifying their answers. Additionally, it is important for the assessment process because it is an opportunity to relate theoretical content with practical and reflexive content produced by the students. To adopt students' own materials to provide support during exams is an approach to a formative assessment that encourages students to produce quality materials and also diminishes anxiety (Rodrigues, 2021).

Furthermore, examiners were encouraged to promote a comfortable atmosphere during assessment, and choosing dialogue and production of knowledge instead of inquiry procedures. Finally, it was suggested that all the examiners of the commission would take part on the dialogue, enabling students to engage in reflections and meaningful learning.

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[2] The official table is organized in a colour scale, where 'always' is in dark green, 'often' is in light green, 'rarely' is in orange and 'never' is in red.

The new procedures were simple to be implemented, apart from the ones concerning changes in the examiner's attitude, which depends on individual choices and approaches. Although significant changes may be difficult to achieve at first, small attitudinal changes combined with structural changes open the possibility for educational dynamics based on a different epistemological perspective.

Once this is an ongoing action research, we still do not have data regarding the implemented changes. Nevertheless, we received important feedback regarding all the actions that were put in practice up to now. The students were thankful and glad for the opportunity to understand better what are they expected to produce and answer at their FSE. The department is on the path of establishing new possibilities of knowledge production and ownership. This is an important change, especially concerning a Teacher Education course. When pre-service and in-service student teachers experience new pedagogical practices based on new epistemological perspectives, they can reproduce these in their teaching, instead of maintaining conventional and hierarchical approaches.

Final remarks

Although the context on this research is the Final State Exams of a Teacher Education course, we want to highlight the topic of Assessment in a broader perspective. Regardless of the type and form of the assessment, it is important for Higher Education Institutions to promote learning and knowledge production opportunities also during learning assessments. As we discussed throughout this paper, more than being an attempt to measuring learning biased by specific content selection, assessment can be an opportunity for reflection and for learning. Instead of experiencing psychological suffering, we suggest that students should perceive themselves as knowledge producers and the assessment situation as something they are part of. Unfortunately, this epistemological perception is not common among higher education students. They share an understanding – imposed by a hierarchical system – that they should replicate what teachers and the academic bibliography inform. This issue is even more important when dealing with the topic of assessment because usually the correct answers have already been established by the teachers. Higher Education is a setting marked by innovation and paradigm shifts, therefore different aspects of it – including assessment – should be opportunities for new knowledge productions.

Regarding the FSE in Czech Republic – as well as in other countries which carry out this kind of exams at the end of the courses - we consider necessary to highlight the human dimension involved in this type of assessment. We do not ignore the importance of assessment procedures to certify if a student has developed the necessary abilities and has learned the necessary content for a particular profession. However, when a sole exam defines if a person will be allowed to graduate, it can be overwhelming and, as previously discussed, even hinder the demonstration of knowledge and abilities.

Learning assessment should be structured in a way that students would feel motivated towards learning and reflecting instead of being afraid and stressed. If students prepare themselves for tests instead of preparing themselves for their future profession, it is less likely that the content will be remembered for a long period. Therefore, rather than focusing on an exam, higher education institutions should focus on bigger pedagogical changes that will allow and promote meaningful learning throughout the whole course of studies.

There is a misconception about the need of students being surprised by the content and type of assessment. Human beings are more prepared and feel more confident to deal with issues they are well-informed about. The surprise element, either being intended or not, has no pedagogical basis. Students should learn how to cope with stressful life-situations, but this should be done in specific contexts, with specific approaches, and not in an assessment situation. That is why the department where this research is being conducted made important changes on the information regarding the Final State Exam.

As for the limitations of this research, we can refer to the low number of participants and the self-selection bias of students. Regarding the first issue, we chose to interview fewer students in order to promote longer conversations and also to be able to deal with possible situations of stress and suffering along the interviews with students. Some students thanked us for having listened to them during the interviews and for the fact that the department was interested in them. All the main examiners from the department were interviewed.

When discussing about bias in qualitative research, Johnson, Adkins and Chauvin (2020, p. 141, grifos do autor) explain that

> [...] sampling design in qualitative research is not random but defined purposively to include the most appropriate participants in the most appropriate context for answering the research question. Qualitative researchers recognize

that certain participants are more likely to be 'rich' with data or insight than others, and therefore, more relevant and useful in achieving the research purpose and answering the question at hand.

Even considering the self-selection bias and, therefore, the unintended choice of students-participants, the fact that students were willing to be interviewed by us means that they were open to provide us with information. Furthermore, there were different profile of students: full presential and mostly distance learners; students who were approved with good marks and students who failed the first attempt; students who had their portfolio accepted and those who had it denied. Subsequently, all the students shared similar remarks and experiences regarding their Final State Exams, before and after it.

Additionally, understanding the importance of a bigger picture, the next step of this Action Research will include an anonymous and voluntary questionnaire to be filled in by all the students after their FSE. The other future procedures will be interviews with students who will take their FSE after the first changes of this Action research, and research regarding theory and practice in Teacher Education. The interviews will once again be conducted before and after the FSE of this specific Department. The new specific research about theory and practice in teacher Education will be carried out in a two years' time and will involve teachers and students in different reflection and pedagogical practices.

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