Pedagogical Diary – More than a Formative Assessment Tool in Initial Teacher Training?

**Venera-Mihaela COJOCARIU¹,
Gabriel MAREȘ²**

¹Professor PhD, “Vasile Alecsandri”
University of Bacău, Bacău, România,
venera@ub.ro

²Psychologist, “Vasile Alecsandri”
University of Bacău, Bacău, România,
mares.gabriel@ub.ro

Abstract: The theoretical/practical interest in identifying significant ways to perform formative evaluation in education is highly topical. Researchers/practitioners are constantly looking for new ways to achieve it, while also identifying and/or structuring appropriate tools. The present study proposes a quantitative-qualitative analysis of a set of pedagogical diaries in terms of the following dimensions: 1. the formative aspect of the method in teacher initial training; 2. the continuous evaluation process carried out at a discipline in the field of Education sciences, by means of the pedagogical diary; 3. practical application of the pedagogical diary in the process of building 21st-century competences. The research group comprised 65 1st-year students attending the initial training for the teaching career. The aim of this study is to highlight how the pedagogical diary may contribute to the continuous assessment of students attending the initial teacher training process and their growing aware of their own universe of expectations and states related to learning. The novelty of this approach is identifying the expectations, concerns and states of students before and after studying a discipline in the field of Education sciences. The results obtained in the pre- and post-analysis stage have generated conclusions on the possibility of using the pedagogical diary in a way complementary to the one already known and used, as well as on the value of this approach.

Keywords: *pedagogical diary; concerns; expectations; states; formative assessment; initial teacher training;*

How to cite: Cojocariu, V.-M. & Mareș, G. (2019).

Pedagogical Diary – More than a Formative Assessment Tool in Initial Teacher Training?. *Revista Romaneasca pentru Educatie Multidimensionala*, 11(4 Supl. 1), 59-81. doi:10.18662/rrem/177

1. The reflexive dimension of formative evaluation

The need for a more compatible harmonization between summative and formative evaluation (Yorke, 2003; Hannula, 2017), between the methods used in the two processes, their scope and complementarity has become an axiom about the teaching process. Rassekh & Văideanu argued about the need to *overturn the classical triad of educational objectives* by highlighting the demand to ensure priority to acquisition of skills that foster the "learn to learn" ability; the authors also emphasize the need to build intellectual independence at students, based on which to form the ability "learn to be, learn to become" (1987:148-149). Other studies focused on clarifying evaluative approaches, (Schön, 1983; Bordas & Cabrera, 2001; Park, 2003; Yorke, 2003; McClure, 2005; Walker, 2006; Clark, 2012; Tinto, 2012; Nga, 2016; Ferguson, 2018; Chang, 2019) suggest that these should distinguish between two types of acquisitions, professional knowledge and reflection-in-action (Dymont & O'Connell, 2010), which are regarded as having a decisive impact on teacher initial training that should form, among other things, a reflective teacher. Also, the value and usefulness of reflective practices is required in relation to other directions of vocational training / development, as revealed by the numerous studies carried out in the fields of pre-service teacher training, early childhood education, business, literature (Dymont & O'Connell, 2010), health, social assistance, the sciences, engineering and mathematics, languages, the humanities and social sciences, psychology, arts, law, economics, sports (Moon, 2010).

In its natural attempts at clarification, the theory of evaluation has covered a series of successive steps (the paradigm of pragmatic intuition, the docimological paradigm, the paradigm of objective-based evaluation, the paradigm of formative evaluation, the paradigm of competence assessment) (Manolescu, 2019), constantly anchored in the same generic challenge to find those more appropriate answers to the questions What do we evaluate? and, by default, How do we evaluate? Far from providing a final answer to these questions and to many other dilemmas about evaluation, the formative approach may be considered an effective solution. It provides, among other things, unquestionable gain through its reflective dimension, with an impact on both the solidity of learning and the metareflexive dimension (Hannula, 2017). In this sense, it offers a wider range of clues NOT just about what the student knows or can do (learning products), NOT just about the learning process (how one manages to acquire learning), but also about what the student is, the students' feelings, interests, states, concerns, values and, where appropriate, their evolution. Thus, formative evaluation becomes a

holistic one, with additional impact on the student's knowledge and development, with the final result being a mixed one, product - process, meaning that the student acquires autonomous reflective practice of self-monitoring and growth (Park, 2003; Clark, 2012) whereas the teacher receives good feedback, as well as a professional development vector (National Research Council, 1997). According to Edwards (2017), it is really beneficial to extend Schön's perspective of 2 stages (reflection-in-action and reflection-on-action) to "a four-dimensional process by adding reflection-before-action and reflection-beyond-action" (p. 1). Correspondingly, the more complex the analyses of the reflective dimension of formative evaluation, the more useful and productive the efforts to create and use specific instruments. At this level, one may argue for the possibility of transforming formative evaluation into training evaluation (generating empowerment) (Bordas & Cabrera, 2001) and applying methods of continuous evaluation in "postmethod pedagogy" (Kumaravadivelu, 2001:538-544).

2. The pedagogical diary – from knowledge evaluation to identification of concerns, expectations and states

The elaboration of pedagogical diaries, the analysis and the interpretation of the results obtained on this basis has been called "diary studies", a form of qualitative study of language that has emerged at the end of the 70s, last century (Curtis & Bailey, 2009). The last 25 years have experienced an abundance of studies on the possibilities of applying reflective didactic approaches and, implicitly, using the pedagogical diary as a highly formative method correlated with active / interactive, experiential learning (Dyment & O 'Connell, 2010). Other perspectives on its formative value highlight the collaborative and stimulating dimensions that have been inspired by the paradigmatic approach to constructivism and the focus on the topic of learning (Bordas & Cabrera, 2001; Hannula, 2017). Based on the preoccupation with how to determine students to learn thoroughly and the need to renew formative evaluation tools, the pedagogical diary has gradually come across as an attractive, useful and efficient solution. Thus, the pedagogical diary can also provide benchmarks and feedback for both product and (especially!) process.

The pedagogical diary has been referred to by various names and "terms often used interchangeably: learning journals, logs and reflective diaries" (Moon, 2010:2). Most often defined as a metareflexive formative assessment tool that consists of analyzing and describing one's own learning

process (Bordas & Cabrera, 2001; Park, 2003; Oprea, 2009; Murnahan, 2010; Medina, 2013; Nind et al., 2019), it enjoys a number of significant advantages: it represents an experience of self-analysis, a dialogue with ourselves about the learning process; a way to personalize and deepen the quality of learning and help its beneficiaries to integrate materials (Moon, 2010); a strategy to perform learning transfer; it allows identification of the states generated by the learning process (Bordas & Cabrera, 2001; Oprea, 2009; Murnahan, 2010); it provides significant feedback for the teacher (an "ally in the process of improving one's teaching activity") (Leca, 2004). In conclusion, it generates and supports the activity of reflection (Trif & Popescu, 2013; Medina, 2013).

Analyzing the advantages of using the pedagogical diary presented above, it may be considered that this is an extremely versatile method in that it can be used "as a vehicle for reflection before, during, and after a learning experience" (Dyment & O'Connell, 2010:233; Trif & Popescu, 2013) which opens up new opportunities for capitalization not only in didactic practice, but also in research on this topic.

Initially, it was conceived only as an alternative evaluation method, a means of verifying and improving the level of knowledge and applicability of the learned contents. Subsequently, increased interest occurred for its formative impact in terms of developing reflective capacities, operated both on the product and process (Cunliffe, 2004). Subsequently, its use has been customized to more "hidden" dimensions of student acquisitions, such as those in the perimeter of influencing the process of personal training and development by outlining and refining values, motives and emotional reactions that are generated by or accompany the training process (education / self-learning).

From this perspective, Moon operates with the distinction between learning journals, in which "emphasis is on making the learning that occurs explicit and recording it" and reflective diaries that "are more concerned with demonstrating reflection on an experience" (2010: 2). Even though both highlight the reflective component of the learning act and may be interchanged, it can be noticed that the second approach emphasizes this aspect more intensely (and the term used by us - pedagogical diary - is synonymous with the latter meaning). Regardless of the form used, the diary is invested with great value in facilitating the training process and learning assessment. Its second variant (reflective diary / pedagogical diary) is used when in addition to learning optimization the teacher also pursues other effects of a formative nature, among which, besides development of reflective thinking, stimulating critical thinking and encouraging learner

reflection on the subjective vectors involved in his/her own learning are also included.

Capitalizing on 'Tompkins' ideas, Jarson (2015) will expand the approach to the content and form of this tool in terms of multiple forms of achieving it, which will further diversify content processing and the expression of states connected with it. The author argues that the teacher also gains a lot in terms of obtaining feedback elements, such as: stronger and broader connections between knowledge, increasing responsibility in relation to what happens in the classroom, increasing reflection on the teaching process (for the teacher) and the learning process (for the student).

Despite several general approaches we have identified (Pavlenko, 2007; Costa & Kallick, 2008; Moon, 2010; Tinto, 2012; Pekrun, 2014), the literature remains limited in analyses on the pedagogical diary and on how it may highlight/express or stimulate subjective components of learning. The topic is insufficiently developed, both theoretically and as applied research, many studies being restricted to the enunciative level when it comes to addressing the role of the pedagogical diary, especially from the point of view of the affective reactions that students experience in the learning process.

From this perspective, we list some studies that merely announce the possibility to provide students with certain opportunities by means of the pedagogical diary: to express themselves and develop emotionally (National Research Council, 1997; Park, 2003); to know the learner's beliefs and feelings (Pavlenko, 2007); to highlight the feelings and attitudes experienced by those involved in the learning process (Bailey, 1991; Active Learning Methodologies, f.a.; Bordas & Cabrera, 2001; Cunliffe, 2004; Oprea, 2009; Curtis & Bailey, 2009; Medina, 2013; Supiani, 2016) or their expectations (Khang, 2017); to highlight how affective states shape engagement and the learning process (Cleveland - Innes & Campbell, 2012). At the same time, there are studies (although few) that offer ways to investigate the use of the pedagogical diary for:

- a) identification and analysis of emotions experienced during the learning process (Nind et al. 2019; Walker, 2006);
- b) knowing the difficulties identified by the students in terms of their language skills, anxiety during lessons or existing motivation (Nešić & Stojković, 2017);
- c) highlighting the positive impact of keeping a diary on reducing stress and anxiety (Murnahan, 2010);

d) awareness of beliefs, values and personal states that have generated reactions during the teaching activity (Guiu Puget, 2005; Trif & Popescu, 2013).

A pragmatic approach (that has, in fact, emerged to fill the research gap!) concerns how different organizations and professional associations, interested in education and new strategies that can be used for a more complete training of children, address the issue of the diary. We have identified such an approach on the website <https://proudtobeprimary.com/emotions-for-kids/> where students are asked and encouraged to fill in a diary about their emotions (in relation to learning tasks, trips or school events). We believe that this approach may be extremely useful because it illustrates the process of keeping a diary focused on knowledge, identification and management of feelings experienced by students.

3. Research methodology

What is known in the area of pedagogical research as "action research" (Sá, 2001, Khang, 2017) is precisely that type of research that is carried out/applied by teachers with practical concerns in the classroom. Our research is based on the intention to experiment with a formative evaluation tool - the pedagogical diary - and monitor its possibility to offer more than product and process data. The use of the diary was designed in such a way that we, teachers and researchers at the same time, become "alongsiders, working with and alongside practitioners, placing a shared lens on the practice" (Caroll, 2009, apud Nind & Lewthwaite, 2018: 401; Marcos, Miguel & Tillema, 2009). We set out to analyze and draw a series of conclusions identifying the concerns, expectations and affective states that our students have experienced during a semester while studying a compulsory discipline in the area of Education sciences. This type of research is challenging in the sense that "it would allow us to work with teachers and learners in ways that could educate and transform all of us" (students and teachers) (Nind & Lewthwaite, 2018: 402). The usefulness of the study is amplified given that the students who were part of the group are preparing to become, in their turn, teachers for primary and pre-school education.

The research was conducted during the 2nd semester of the 2018-2019 academic year (February-May, 14 weeks) at "Vasile Alecsandri" University of Bacău, at the discipline of the History of Educational Ideas and Paradigms. This is part of the compulsory curriculum for the Pedagogy

of Primary and Pre-school Education study program, 1st year. This research is the continuation of another one carried out in the academic year 2016-2017. The latter aimed to use the pedagogical diary, at the same discipline, on another group of students for the purpose of identifying motivational vectors. In this study, we have explored the use of the pedagogical diary at a compulsory discipline as a first learning experience during the teacher initial training program to identify the evolution of concerns, expectations and affective states at students throughout a semester. The research methods used were: content analysis of pedagogical diaries, statistical and mathematical methods.

3.1. Purpose of the study

The use of a pedagogical diary kept in relation to a pedagogical discipline from the first year of teacher training for primary and pre-school education in order to identify the evolution of the concerns, expectations and affective states of the students who performed the learning activity throughout a semester.

3.2. Hypotheses (H) and objectives (O)

The general hypothesis, (H1) integrating the pedagogical diary into the teaching activity enables the identification of a positive general evolution of the students' expectations, concerns and affective states throughout the semester:

O1: identification and quantification of entries in student diaries that illustrate their expectations, concerns and states before and after studying the discipline;

O2: quantifying the evolution of students' expectations, concerns and states while studying the discipline and comparative analysis of their evolution;

H2: during the study of the discipline the evolution of students' expectations is positive and inferior to the positive evolution of students' concerns:

O3: comparative analysis of the evolution of students' expectations and concerns highlighted while studying the discipline;

H3: while studying the discipline the evolution of students' affective states is positive and superior to the positive evolution of students' expectations:

O4: comparative analysis of the evolution of students' affective states and expectations highlighted during the study of the discipline;

H4: during the study of the discipline the evolution of students' states is positive and superior to the positive evolution of students' concerns:

O5: comparative analysis of the evolution of students' states and concerns highlighted during the study of the discipline;

H5: during the study of the discipline the evolution of students' concerns is positive and superior to the evolution of students' expectations and states:

O6: comparative analysis of the evolution of students' concerns, expectations and states highlighted during the study of the discipline.

3.3. The design of the pedagogical diary

In this endeavor we were firmly convinced that regarding the learner today only as a rational being, with no interest in knowledge and support of his/her inner affective world, with concerns and expectations as well as their impact on the learning outcome is a big loss. All the more so as these are present in all human activity and knowing, monitoring and managing them (with their double meaning, as positive or negative emotions/expectations, and with their dynamics that is difficult to be highlighted in research) become actions useful for all learning (Hascher, 2010; Cleveland - Innes & Campbell, 2012; Valiente et al., 2012; Nind et al. 2019).

Knowing the theoretical requirements of the use of every teaching methodology, concretely the need to establish the aims for using the diary and students' awareness of these in terms of evaluation (Bordas & Cabrera, 2001; Dymont & O'Connell, 2010), we proceeded to establish 2 major and complementary aims of the pedagogical diary designed and used by us: 1. a cognitive aim - active assimilation, based on reflection and critical-comparative analysis of the contents specific to the discipline of The History of Educational Ideas and Paradigms (predominantly instructive - educational purpose) (in relation to this, we will not present the objectives, as these are not the subject of this study); 2. an attitudinal-affective aim - awareness and monitorization of worries, expectations and affective states involved before and after studying the respective education discipline (predominantly formative purpose, with feedback on a subsequent instructional-educational process).

In accordance with the second aim (which is the subject of the present study), we have elaborated the following objectives:

- to reflect, before and after the teaching process, on the concerns, expectations and states involved (awareness, naming, analysis);
- to monitor their concerns, expectations and affective states involved during the teaching process in the respective discipline;
- to reflect on the evolution of the concerns, expectations and affective states manifested during the teaching process and the correlation of this evolution with the learning process result.

3.4. Research sample

The sample consisted of 69 1st-year students attending the Pedagogy of Primary and Preschool Education study program, the 2018-2019 academic year. In our research we have used a convenience sample. We received a number of 69 diaries (out of a total of 75 students) and identified concerns, expectations and states generated by the use of the pedagogical diary at the beginning and end of the time interval dedicated to studying the discipline. All the research participants have voluntarily given their written consent, so that the data collected as a result of keeping the pedagogical diaries will be used for the purpose of conducting the present research. The ethical principles of the research were respected, the information collected from the journals were treated with confidentiality, respecting the dignity of the participants. The study was observative and did not involve invasive interventions or elements that would affect the integrity of the participants or involve conflicts of interests.

3.5. Procedure

The group was asked to keep a pedagogical diary for the discipline of The History of Educational Ideas and Paradigms. During the first class meeting, students were instructed on the 2 major aims for keeping the diary, how to fill in the diary at the end of each seminar, and on several expected formative effects: 1. ensuring thorough learning; 2. integrating the pedagogical diary into the formative evaluation process; 3. contributing to a higher (personal and professional) development of reflexivity. In addition to the tasks in the diary that aimed at acquiring specific contents (aim 1), students were asked to express, at the beginning of the diary, the concerns, expectations and affective states experienced by them upon beginning to study the discipline and, at the end of the semester, to re-analyze them and write down the same aspects, using this evaluation tool (aim 2). There were constant reminders about filling in the diary. The diary was handed over to the teacher after examination. The quantitative approach was used to establish and compare answer frequency; the qualitative approach was used to identify concerns, expectations and states, compare and interpret them. All students agreed on using the diaries in this research and were interested in completing it.

3.6. Results and discussions

By referring to O1 - identifying and quantifying entries from student journals that illustrate their expectations, concerns and states at the

beginning and at the end of the study of the discipline - we present the collected data. A first aspect was to identify the *students' readiness* to reflect on these issues, and the identification factor was the presence of a response for each indicator in the task (expectations, concerns and states). For the comparative systematization of the data, the quantification of the frequency of answer occurrence ($N = x$) was used and the offer of the answer was marked with +, respectively its non-existence by – (Table 1.1).

Table 1.1. Presentation of the *number* of answers collected in the initial and final evaluation of students' expectations, concerns and states

Entry	initial		final	
	+	-	+	-
Expectations	+50	-19	+12	-57
Concerns	+37	-32	+10	-59
States	+46	-23	+45	-24
Total	+133	-74	+67	-140
Media	+44.33	-24.66	+22.33	-46.66

The data highlighted in Table 1.1. in columns 1 and 3 express an initial high readiness of students ($N = 133$) to reflect on the requested aspects and to provide a personal point of view on them. Comparing the areas of introspection, we can see that most references were expressed in the initial reflections on expectations ($N=50$), followed by the self-analysis of affective states / attitudes ($N=46$) and, with a relatively low weight, there was the area of identifying concerns ($N= 7$). After completing the learning activity, we found a significant decrease in the weight of expectations (from $N=50$, to only $N=12$ answers, a decrease by 38 expressions) and concerns (from $N=37$ to only $N=10$, a decrease in weight of expressions) but also a relatively constant maintenance of states ($N=45$).

A second aspect highlighted by the analysis of the journals was the nature of the *content of expectations, concerns and states* from which we identified components with cognitive, affective-motivational or practical-applicative meaning (Table 2.1).

Table 2.1. Presentation of the *content* of the answers collected in the initial and final evaluation

Entry	cognitive	affective	motivational	applicative
<i>expectations</i>				
initial	46	2	2	-
final	-	-	-	12
<i>concerns</i>				
initial	14	22	1	-
final	6	4	-	
<i>states</i>	positive	negative		
initial	28	18		
final	45			

The data highlighted in Table 2.1. allow to emphasize several categories of contents that can be found at the level of expectations, concerns and states. Most entries (N=50) of the total entries collected in the *initial evaluation* are expressed in the *expectations* category. The qualitative analysis revealed that among expectations, a very high share (N=46) is given to those of a **cognitive degree** (e.g., *high degree of novelty and difficulty of the contents, improvement of the pedagogical culture, knowledge of pedagogical doctrines and their role in the training for the teaching career, the discovery of new theories and practices, the deepening of this discipline because it lays the foundations of the current education process, the learning of new and interesting aspects, the possibility to find answers to some questions and to clarify a series of misunderstandings, the discovery of pedagogical ideas from the earliest times and from as many areas of the world, the way in which different pedagogues analysed and explained education, knowing relevant aspects about education in the past that contributed to the evolution of contemporary education, understanding how valuable pedagogical ideas of the past may be when adapted and applied in education today, understanding the degree to which previous pedagogical ideas still fit the present and, why not, the future, to learn and accumulate the necessary knowledge in my future teaching career*). Only 2 students expressed expectations of an **affective nature** (e.g. *eagerness to find out what the new learning discipline is about and discover new contents, a desire to know more, confidence in the ability to learn new contents but also affective negative resonance in relation to the learning experience from a similar subject studied in high school*). Also 2 students have **motivational** expectations (*the need to find out more elements about the history of pedagogy, the need to apply in the future what they learn in this course*). It was interesting for us to find the fact that in the *final evaluation* the number of entries for expectations is only 12 and all refer to the **practical-applicative dimension** (*the transposition into practice of the newly*

acquired approaches, the use of acquisitions in the future profession, the conviction that by applying the acquisitions learned in this course they may become a good teacher).

Second, in descending order of entries from the *initial evaluation*, more than half of the total students' expressed answers (N=46) are *states*. Of these, a high share (N=28) are positive states (e.g. *curiosity, enthusiasm, joy, positivity, eagerness to work in a team, teacher confidence, interest, relaxation, confidence, empathy, enthusiasm to see the new things that they are about to learn, and which of these they would be able to put into practice in their work*). The other part of the expressed states (N=18) have a negative connotation (e.g. *worry, anxiety, fear*). In the *final evaluation*, the total number of entries is relatively unchanged (N=45), but they all have a positive connotation.

In the third place, in descending order of the entries from the *initial evaluation*, about half of the total students (N=37) have expressed *concerns*. Of these, on the first position, with a high share (N=22) are those of an **affective nature** (e.g. *fear of novelty, fear that it could be boring, fear of not understanding the contents, fear because of not knowing what the discipline would be about, that the subject would be cumbersome, concern about the ability to learn new contents, fear about not being able to cope with the requirements, fear of not understanding the purpose of this discipline, fear because of not knowing how the discipline would be*). The second relevant category by weight (N=14) are concerns of a **cognitive nature** (e.g.: *high volume of contents, conceptual difficulty, lack of terms, difficult tasks to solve*). There is only one student who expresses concern of a motivational nature (e.g., *the thought about the possibility to lose enthusiasm and interest*). In the *final evaluation* the total number of entries is much lower (N=10). Of these, there remained only N=6 of a cognitive nature (concern about the final evaluation, concern about not finding the opportunity to pass on to others the newly acquired knowledge, the existence of many aspects to be explored), and the other N=4 are affective in nature (e.g., *fear about not being able to master the pedagogical culture of the world, fear about never being able to know everything, fear about the possibility to not understand everything correctly*).

Regarding O2: quantifying the evolution of students' expectations, concerns and states during the study of the discipline and comparative analysis of their evolution, we shall proceed to an interpretation of the data highlighted in Table 1.2., the third column.

Table 1.2. Presentation of the number of responses collected in the initial and final evaluation of the students' expectations, concerns and states and their evolution

Entry	initial	final	evolution
Expectations	+50/-19	+12/-57	-38
Concerns	+37/-32	+10/-59	-27

States	+46/-23	+45/-24	-1
Total	+133/-74	+67/-140	-66
Media	+44.33/-24.66	+22.33/-46.66	-22

The comparative analysis of the collected data that reflects the initial and final positioning of the students who were part of our group, carried out on the three dimensions investigated with the help of the pedagogical diary allows the formulation of the following partial conclusions:

1. The expression of expectations has decreased significantly, by a number of N=38 (from N=50 to N=12). It can be considered that after studying the respective discipline, the expectations of the students have decreased significantly, which, at a first look, does not represent a positive feedback for the didactic activity;

2. The expression of concerns shows a large decrease, by a number of N=27 (from N=37 to N=10). It can be considered that after studying the respective discipline, the worries have largely decreased, which, at first glance, represents a positive feedback for the didactic activity;

3. The expression of states is relatively constant, registering an insignificant decrease by N=1 (from N=46 to N=45). Nothing can be appreciated regarding the type of feedback for the didactic activity offered by these data after studying the respective discipline;

4. Against the background of a decrease at all the three categories of indicators expressed, the data show a significant decrease in the expression of expectations and concerns (with N=11 the greater decrease for expectations compared to concerns);

5. It is interesting to note a maintenance of a relatively constant expression of states.

Also, with reference to O2, the data highlighted in Table 2.2., lines 4, 8, 12, may be interpreted. These illustrate the qualitative aspect of the evolution of expectations, concerns and states in terms of their content.

Table 2.2. Presentation of the *content* of the answers collected in the initial and final evaluation and of their evolution

Entry	cognitive	affective	motivational	applicative
<i>expectations</i>				
initial	46	2	2	-
final	-	-	-	12
<i>evolution</i>	-46	-2	-2	+12
<i>concerns</i>				
initial	14	22	1	-
final	6	4	-	-

<i>evolution</i>	-8	-18	-
<i>states</i>	positive	negative	
initial	28	18	
final	45	-	
<i>evolution</i>	+17		
<i>Media 1</i>	-27 (<i>cognitive</i>)	-10 (<i>affective</i>)	
	+31,5	-9 (<i>negative</i>)	
<i>Media 2</i>	(<i>positive</i>)		

The comparative analysis of the pre- and post-learning evolution of the data collected on the three dimensions investigated with the help of the pedagogical journal on the composition of their content allows us to formulate the following partial conclusions:

1. The expression of *expectations* records a complete reconfiguration of the content from the initial evaluation to the final evaluation. Initially, a large number of students (N=46) expressed expectations of a cognitive nature, only very few (N=2) had expectations of an affective nature and expectations of a motivational nature (N=2). In the end, the number of those who wrote down expectations was extremely small (N=12) and all their ideas focused on the practical-applicative component of what they had learned (in relation to the future, the usefulness of the knowledge learned, their availability to capitalize on the acquisitions through application in their activity as future teachers, in the educational process). Basically, the expectations of a cognitive nature decrease by N=46, those of an affective nature by N=2 and those of the motivational nature by N=2;

2. The expression of *concerns* shows a very large decrease in terms of content from the initial evaluation to the final one. Initially, the predominance of affective expectations (N=22) compared to a small number (N=14) of expectations of a cognitive nature and only one student with expectations of a motivational nature (N=1), from the total number of responding students (N=37). In the end, the number of those who wrote down concerns decreased by N=27 and became extremely small (N=10). In this context, the dominance changes, registering a greater number (N=6) on the cognitive component (decreasing by N=8) and only N=4 on the affective component, occupying the second place (having decreased by N=18). Motivational concerns have disappeared;

3. The expression of *states* shows a major restructuring in terms of content from the initial evaluation to the final evaluation. Initially, out of the total number of responding students (N=46), a large number of students (N=28) were required to express positive emotional states and a smaller

number (N=18) of students expressed negative affective states. In the end, the total number of states recorded was relatively identical (N=45) and the content of these entries is only of a positive affective nature;

4. The decrease registered at the total level of expectations and concerns can also be found in terms of their content. In both categories there is a decrease in terms of contents, both cognitive and affective;

5. The decrease in the cognitive content is much higher in terms of expectations (N=46) compared to concerns (N=6), with N=40 fewer answers in this category;

6. It is interesting to note the relatively constant expression of the number of entries for states (N=45 compared to N=46) with the transformation of all affective states into positive states.

The data collected and analysed for O1 and O2 invalidate the general hypothesis H1: *integrating the pedagogical diary into the teaching activity enables the identification of a positive general evolution of the students' expectations, concerns and affective states throughout the semester*. The decrease of the expectations of the cognitive, affective and motivational type and their transfer to the practical-applicative dimension, the significant diminution of concerns on both dimensions, the relatively constant maintenance of the number of entries on states and their total transformation into positive states express a general positive evolution of only two dimensions (respectively, concerns and states).

Regarding O3, the comparative analysis of the evolution of student expectations and the evolution of concerns highlighted during the study of the discipline, we proceeded to a comparative analysis of the data highlighted in Table 1.2. and Table 2.2. Quantitatively speaking, both indicators show a decrease in the frequency of the two dimensions (expectations, from N=50 to N=12; concerns, from N=37 to N=10). The decrease in expectations is N=38, while in concerns the decrease was N=27. From the point of view of the contents expressed, both at the level of expectations, as well as concerns, there was a decrease of both the share of the responses for the cognitive dimension and for the affective one. From the perspective of the analysis on expectations, the transformation was radical, all the N=12 entries expressed in the final evaluation referred to the practical-applicative character, counterbalancing the cognitive, affective and motivational type of options initially expressed. For concerns, the affective-cognitive predominance from the initial evaluation is reversed, against the background of the overall diminution of concerns.

The data collected and analyzed for O3 do not allow for the validation of hypothesis H2: *during the study of the discipline the evolution of*

students' expectations is positive and inferior to the positive evolution of students' concerns. The data analyzed comparatively indicate a positive evolution of both indicators, only that the decrease of the entries on expectations (N=38) is significant compared to the decrease of entries on concerns (N=27).

Regarding O4, the comparative analysis of the dynamics of students' states and expectations highlighted during the study of the discipline, we proceeded to a comparative analysis of the data highlighted in Table 1.2. and Table 2.2. Quantitatively speaking, while for expectations there was a decrease in the options expressed by students (from N=50 at the beginning of the diary's completion, to N=12, at the end of the diary's completion). Analyzing the opinions regarding the states, the number of options remained relatively constant (from N=46 to N=45). The decrease in the number of entries on expectations is N=38 while for entries on states the decrease is N=1. From the point of view of the contents expressed, at the level of expectations there was a radical transformation, all the entries expressed in the final evaluation (N=12) were of a practical-applicative type, not identifying opinions that would surprise the cognitive, affective and motivational type of options. Analyzing the states component, a major qualitative transformation was found, meaning that all the N=45 entries in the final evaluation expressed only positive affective states.

The data collected and analyzed for O4 allow for the validation of hypothesis H3: *while studying the discipline the evolution of students' affective states is positive and superior to the positive evolution of students' expectations.* The data analyzed comparatively from the quantitative and qualitative point of view indicate a positive evolution of both indicators, with a qualitative manifestation superior to the *states* indicator.

In relation to O5, the comparative analysis of the evolution of students' states and concerns highlighted during the study of the discipline, we proceeded to a comparative analysis of the data highlighted in Table 1.2. and Table 2.2. Quantitatively speaking, whereas for states the number of options remains relatively constant (from N=46 to N=45), regarding concerns there is a significant decrease (from N=37 to N=10). If for *states* the change produced was only -1, for *concerns* the change in the expression of opinions was much greater, of N=26. From the point of view of the contents expressed, at the level of states, a major qualitative transformation took place, in the sense that all the entries from the final evaluation (N=45) expressed only positive affective states. For concerns, the affective-cognitive predominance from the initial evaluation was reversed, against the background of the overall diminution of concerns.

The data collected and analyzed for O5 allow for the validation of hypothesis H4: *during the study of the discipline the evolution of students' states is positive and superior to the positive evolution of students' concerns*. The data analyzed comparatively from the quantitative and qualitative point of view indicate a positive evolution of both indicators, with a higher frequency for the *states* indicator.

Regarding O6, the comparative analysis of the evolution of students' concerns, expectations and states highlighted during the study of the discipline, we proceeded to a comparative analysis of the data highlighted in Table 1.2. and Table 2.2. Quantitatively speaking, there is a decrease in the opinions expressed for all three indicators: for *concerns*, there is a significant decrease (from N=37 to N=10), for *expectations* there was a very significant decrease in the options expressed by the students (from N=50 to N=12); for *states*, the number of options decreased insignificantly (from N=46 to N=45). In descending order of their scores, the three indicators show decreases as follows: expectations N=38; concerns N=27; states N=1. From the point of view of the contents expressed: for *expectations*, a radical transformation took place, all the entries expressed in the final evaluation were of a practical-applicative type, replacing the cognitive, affective and motivational type of options; for *concerns*, the affective-cognitive predominance from the initial evaluation was reversed; for *states*, a major qualitative transformation took place, in the sense that all the entries in the final evaluation expressed only reflections of some positive affective states in relation to the study of the discipline.

The data collected and analyzed for O6 do not allow for the validation of hypothesis H5: *during the study of the discipline the evolution of students' concerns is positive and superior to the evolution of students' expectations and states*. The data analyzed comparatively from the quantitative and qualitative point of view indicate a positive evolution of all the three indicators, with a higher quantitative manifestation for the *expectations* indicator and a higher qualitative manifestation for the *states* indicator compared to the *concerns* indicator.

4. Conclusions

The data obtained are by far insufficient to make generalizations about the use of the pedagogical diary in the direction of identifying students' expectations, affective states and concerns. At the most, our study may be considered a case study, conducted within a specific context, with a small number of diaries that have been qualitatively analyzed. However, the

data obtained allow us to formulate conclusions with an ameliorative impact at the microsystem level, a basis for larger studies.

In terms of using the diary as a formative evaluation method in the initial training process for the teaching career, we may conclude that:

1. Although three of the hypotheses have not been confirmed (or precisely for this reason!), we consider that this fact clearly highlights the need for further use, on a larger scale, by more teachers in a systematic, more diversified way of the pedagogical diary as a working method for building critical and prospective thinking skills, and meta-analysis skills for the students who want to become teachers for primary and pre-school education.

2. From the analysis of the diaries, there is an excessive concern on the part of the students related to focusing on cognitive elements, on the desire to make acquisitions in the field of knowledge. To a point, this aspect is auspicious, beyond which it becomes a lack. It is about the fact that the concern for self-analysis, self-reflection, connection of knowledge with real-life elements are reduced. The aforementioned analysis is also reinforced by the expression of affective states that are also correlated with the fear of not being able to cope with cognitive tasks, processing of knowledge, data retention, etc. The same situation is also valid for expressing states or expectations mentioned at the end of the diary. Students focused their opinions on the cognitive component or on rationalization of the affective component by expressing rather the desire to transmit the acquired knowledge than to put it into practice, or by revealing their impact on the affective component. This makes us think about the shortcomings of such an approach in the future career of teachers, the effects of the predominant centering of their didactic approaches on content and less on the process or on the student himself/herself.

3. Another conclusion refers to the fact that the investigated first-year students have a reduced capacity for analysis and self-analysis, for identifying the connections that can be made between theoretical knowledge and its application in future professional activity. Hence, the importance of using, in the teaching/evaluation process, some methods that stimulate reflexive capacities as well as those of identifying the connections between theoretical elements and professional practice.

4. From this point of view, the study emphasized the importance of continuing and intensifying the efforts of teachers in the direction of shifting the focus on the formative process and diminishing the excessive orientation towards the resulting elements (especially if the result is equivalent only to the knowledge acquired).

In terms of using the diary as more than a way of formative evaluation in teacher initial training, we may conclude that:

1. The effort to complete this diary, especially on the component of expectations, concerns and states is a very good exercise of reflection, knowledge, but especially of metareflection and metacognition;

2. By practicing it, students reconfirm aspects of self-knowledge or discover new ones (how to behave in front of a relatively new academic task, what they feel in relation to it, what expectations they have in the process or after its realization);

3. The effort of elaborating the pedagogical diary increases involvement in the task, but the concentration involved increases awareness of the task, accuracy of self-perception on the indicated aspects (expectations, concerns, states) that, otherwise, may have been insufficiently analyzed or completely ignored;

4. The pedagogical diary becomes more than a formative way of evaluation, being also a reflexive way of learning but, above all, a way of self-knowledge of the student during the learning process;

5. The exercise of the elaboration of the pedagogical diary contributes both to training/consolidating this ability (the student learned to write a pedagogical diary – an acquisition for himself/herself) as well as to the instrumentation of the future teacher with this way of working (knowing how to teach others about it - valuable acquisition for those with whom they would work);

6. Although their future students may be young (preschool and primary) and unable to elaborate a pedagogical diary at this age, future teachers can perform reflective exercises similar to those proposed by us in the diary (What do you expect next? What are your worries before you start learning about ... What do you feel now before you start working on ...?). These may be introduced in the activity as often as possible, whenever the appropriate context is created or revealed, before, during and at the end of some activities. Ultimately, the need for reflection and its exercise, the desire to find out more, the joy of self-discovery, can be thus transferred to students.

Both perspectives of concluding the results of our study can be brought together under the umbrella of the notion of *teacher reflection on action* (Marcos, Miguel & Tillema, 2009). Beyond the multitude of approaches, this capacity/ability must be formed, and the period of initial preparation for the teaching career is significant in this direction, as well as in terms of the values and beliefs of future teachers. No matter how we look at things, a sustained effort is needed to implement reflective teaching practices.

Acknowledgment

Presentation of this paper in the 3rd LUMEN EDU EQSD 2019 Conference, Târgoviște, România, November 21st-22nd, and publication of this work was supported by the project *CNFIS-FDI-2019-0453: Support actions for excellence in research, innovation and technological transfer* at “Vasile Alecsandri” University of Bacău (ACTIS- Bacău), financed by the National Council for Higher Education, Romania.

References

- Bailey, K. M. (1991). Diary Studies of Classroom Language Learning: the Doubting Game and the Believing Game. *Language Acquisition and the Second/Foreign Language Classroom. Anthology Series* 28 :60-102
- Bordas, A.M.I., Cabrera, R.. F. (2001). Estrategias de evaluación de los aprendizajes centrados en el proceso. *Revista Española de Pedagogía*. Año LIX (218):25- 48.
- Chang, B. (2019). Reflection in Learning. *Online Learning*, 23(1): 95-110.
- Clark, I. (2012). Formative assessment: Assessment is for self-regulated learning. *Educational Psychology Review*, 24 (2):205–249.
- Cleveland - Innes, M., Campbell, P. (2012). Emotional Presence, Learning, and the Online Learning Environment. *The International Review of Research in Open and Distance Learning*, 13(4), 269- 292.
- Costa, A. L., Kallick, B. (2008). Learning Through Reflection, *Learning and Leading with Habits of Mind: 16 Essential Characteristics for Success*, ASCD book, <http://www.ascd.org/publications/books/108008/chapters/Learning-Through-Reflection.aspx>, accessed 20.10.2019.
- Cunliffe, A. L. (2004). On becoming a critically reflexive practitioner. *Journal of Management Education*, 28(4):407-426.
- Curtis, A., & Bailey, K. (2009). Diary studies. *OnCue Journal*, 3(1):67-85.
- Dyment, J. E. & O'Connell, T. S. (2010). The Quality of Reflection in Student Journals: A Review of Limiting and Enabling Factors. *Innovative Higher Education*, 35: 233–244.
- Edwards, S. (2017). Reflecting differently. New dimensions: reflection-before - action and reflection - beyond-action. *International Practice Development Journal*, 7 (1), [2]:1-14.
- Ferguson, H. (2018). How social workers reflect in action and when and why they don't: the possibilities and limits to reflective practice in social work, *Social Work Education*, 37 (4): 415-427.
- Guiu Puget, E. (2005). Learn in your workplace: an experience in the Faculty of Education and Psychology. REICE: *Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación*, 3(1), 249-254.

- Hannula, J. (2017). Subject matter knowledge and pedagogical content knowledge in the learning diaries of prospective mathematics teachers. *CERME 10, Feb 2017*, Dublin, Ireland.
- Hascher, T. (2010). Learning and Emotion: perspectives for theory and research. *European Educational Research Journal*, 9(1), 13-28.
- Jarson, J. (2015). Dear diary: Using a reflective teaching journal for improvement and assessment? *ACRLog* Blogging by and for academic and research librarians, <https://acrlog.org/2015/09/04/dear-diary-using-a-reflective-teaching-journal-for-improvement-and-assessment/comment-page-1/>, accessed 28.10.2019.
- Khang, N. D. (2017). Action Research about Students' Significant Learning in Higher Education: one of the Valuable Tools for Pedagogical Professional Development. *VNU Journal of Science: Education Research*, 33(2), 1-13.
- Kumaravadivelu, B. (2001). Toward a Postmethod Pedagogy. *TESOL Quarterly*, 35(4): 537-560.
- Leca, C. (ed.) (2004). Evaluarea competențelor civice ale elevilor. Exemple de bune practici [Assesment of student's civic competences. Example of good practice], București: Centrul Român pentru Educație și Dezvoltare Durabilă.
- Manolescu, M. (2019). Evaluarea în educație: meritocrația și mediocritatea [Assesment in education: meritocracy and mediocrity]. București: Editura Universitară.
- Marcos, J. J. M., Miguel, E. S., Tillema, H. (2009). Teacher reflection on action: what is said (in research) and what is done (in teaching). *Reflective Practice*, 10(2), 191–204.
- McClure, P. (2005). *Reflection on practice*, School of Health Sciences, University of Ulster, retrieved on 20.10.2019. [http://cw.routledge.com/textbooks/9780415537902/data/learning/8 Reflection%20in%20Practice.pdf](http://cw.routledge.com/textbooks/9780415537902/data/learning/8%20Reflection%20in%20Practice.pdf),
- Medina, S. L. (2013). Diary Insights of an EFL Reading Teacher. *Profile: Issues in Teachers' Professional Development*, 15(2): 115-126.
- Moon, J. (2010). *Learning Journals and Logs. UCD teaching and learning/ resources. Assessment*, <https://ar.cetl.hku.hk/pdf/ucdtla0035.pdf>, accessed 20.10.2019.
- Murnahan, B. (2010). Stress and Anxiety Reduction Due to Writing Diaries, Journals, E-mail, and Weblogs. *Senior Honors Theses*. 230, <http://commons.emich.edu/honors/230>, accessed 19.10.2019
- National Research Council (1997). *Science Teaching Reconsidered: A Handbook*. Washington, DC: The National Academies Press.

- Nešić, I., Stojković, M. S. (2017). Insights from Students' Language Learning Diaries. *The Journal of Teaching English for Specific and Academic Purposes*, 5(3), 529-544.
- Nga, N. T. (2016). Reflective Journals – its Benefits and Implementation, *TESOL Conference*,
http://www.vnseameo.org/TESOLConference2016/materials/12_2.pdf,
accessed 25.10.2019.
- Nind, M., Holmes, M., Insenga, M., Lewthwaite, S., Sutton, C. (2019). Student perspectives on learning research methods in the social sciences. *Teaching in Higher Education*, DOI: 10.1080/13562517.2019.1592150
- Nind, M., Lewthwaite, S. (2018). Methods that teach: developing pedagogic research methods, developing pedagogy. *International Journal of Research & Method in Education*, 41(4):398-410.
- Oprea, C. – L. (2009). *Strategii didactice interactive*, [Interactive teaching strategies] București: Editura Didactică și Pedagogică.
- Park, C. (2003). Engaging Students in the Learning Process: the learning diary. *Diary of Geography in Higher Education*, 27(2):183-199.
- Pavlenko, A. (2007). Autobiographic Narratives as Data in Applied Linguistics. *Applied Linguistics*, 28(2):163-188.
- Pekrun, R. (2014). *Emotions and Learning*. International Academy of Education (IAE), International Bureau of Education (IBE), Belley, France.
- Rassekh, S., Văideanu, G. (1987). Les Contenus de l'education. Perspectives d'ici a l'an 2000, Paris: UNESCO.
- Sá, J. (2001). *Diary Writing: A Research Method of Teaching and Learning*, Paper presented at the Science Education: Research Teachers Practices Conference, University of Evora, Portugal,
<http://www.leeds.ac.uk/educol/documents/00001698.htm>, accessed 2.11.019.
- Schön, D.A. (1983). *The Reflective Practitioner: How professionals think in action*. London: Temple Smith.
- Supiani, R. (2016). The use of diary in teaching of writing recount texts at SMPN 03 Banjarbaru, South Kalimantan province. *Ethical Lingua*, 3(1):36-48.
- Tinto, V. (2012). Enhancing student success: Taking the classroom success seriously. *The International Journal of the First Year in Higher Education*, 3(1):1–8.
- Trif, L., Popescu, T. (2013). The reflective diary, an effective professional training instrument for future teachers. *Procedia - Social and Behavioral Sciences*, 93,1070 –1074.

- Valiente, C., Swanson, C. J., Eisenberg, N. (2012). Linking Students' Emotions and Academic Achievement: When and Why Emotions Matter. *Child Development Perspectives*, 6(2), 129–135.
- Walker, S. E. (2006). Journal Writing as a Teaching Technique to Promote Reflection. *Journal of Athletic Training*, 41(2): 216–221.
- Yorke, M. (2003). Formative assessment in higher education: Moves towards theory and the enhancement of pedagogic practice. *Higher Education*, 45: 477–501.
- XXX. (f.a.). Active Learning Methodologies, Professional Development Service for Teacher, Dublin,
<https://pdst.ie/sites/default/files/teaching%20toolkit%20booklet%20with%20keyskills.pdf>, accessed 03.11.2019.