

EDU WORLD 2022**Edu World International Conference Education Facing Contemporary World Issues****REFLECTION AND SELF-ANALYSIS OF TEACHING ACTIVITY,
AN OPPORTUNITY FOR PROFESSIONAL DEVELOPMENT**

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Abstract

This article aims to investigate ways of harnessing self-analysis of teaching activity among primary school teachers. At the same time, we are interested in whether a causal relationship can develop between processes of reflection, self-analysis of teaching activity and professional development of teachers. In order to obtain relevant results, we used the questionnaire survey method, which was applied to a group of 340 primary school teachers in Romania. The questionnaire was constructed from nine Likert scale items and it made it more efficient to form an overview of the self-analysis of the teaching activity, as it is currently perceived by the study participants. The survey reveals the important role that a level of reflection held by teachers has on facilitating the practice of self-analysis of teaching activity, systematically, in the classroom. According to the answers obtained, there is a high level of interest among teachers in reflecting on their educational actions and also a need for training in the field of self-analysis of teaching activity, both in theoretical-conceptual and practical-actional terms.

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1. Introduction

One of the priorities of public policy in all education systems is teacher training and professional development. In its entirety, the education process promotes values including reflection and learning, practised throughout life by pupils/students and teachers (*Cariera didactică și parcursul profesional*, 2021).

Vlăsceanu (2019) highlights that the inherent cooperation of EU member countries in the field of education and training in the current period up to 2020 (ET-2020) is primarily focused on six areas, among which open education and training and strong support for teachers, trainers, school leaders and other education staff are highlighted. The rationale for these options is based on the causal relationship between individual student performance and the professional quality of teachers, verified in numerous research and surveys or analyses undertaken by international organisations (OECD, UNESCO, European Commission) "Dynamism, flexibility, responsiveness to the new and critical reflection on curricular requirements and methodological approach should define the modern teaching profession" (Șerbănescu et al., 2020, p. 43).

A fine-grained analysis of professional development through reflection addresses key dimensions of the development of teaching practice: "you don't know you don't know, you know you don't know, you don't know you know, you know you know". These dimensions can be addressed by a teacher using a system of techniques that promote self-analysis of teaching activity. Essentially, this type of reflection must go through five stages: experimentation, discussion of individual experiences, processing these experiences, generalisation and application of the results (Luft, 1969). Identifying areas of difficulty in the work of the teacher, through reflective questioning, provides effective clues to the formation of self-analytical skills. Self-analysis is of the utmost importance in the overall evaluation of teaching activity, because through it the teacher addresses a series of questions whose answers, when recorded, made aware of and valued in action, will produce relevant changes. Studies by Russel and Korthagen (2021) distinguish the major role that reflection plays in the act of teaching, in learning to teach, and even more, in professional development. The examples they provide reveal learning outcomes brought about by such research and the considerable impact of practicing the self-analytical approach in creating desirable management.

A teacher who systematically practises reflection in their teaching develops their managerial skills. The way in which teaching is organised, the capacity for self-observation and self-analysis, the ability to think about lessons in advance, the ability to get to know pupils closely, the ability to find solutions to various problem situations, the ability to prepare the necessary educational resources, all imply effective coordination of one's own actions.

Regarding the adaptability of teachers to the model of self-analysis of teaching activity, we believe that a high level of reflection, held by them, would facilitate their professional development. In the present study we want to outline an overview of the self-analysis of teaching activity by primary school teachers in Romania.

2. Problem Statement

2.1. Reflective attitude of teachers, predictor of practicing self-analysis of teaching activity

The literature identifies the typology of reflection, seen from the general perspective of human action: reflection about action, with the duration of the reflection after the event and reflection in action, with the duration of the reflection during the event (Schön, 1987). These are joined by reflection for action, which takes place before the event, thus demonstrating an anticipatory and orientate function for future actions (Killion & Todnem, 1991).

Through a transition of these types of reflection in education, we identify the major role they play in the process of regulating and monitoring the design-teaching-learning-assessment circuit. A reflective teacher will ask valuable questions which will facilitate his/her interventions in each link of a lesson, in his/her relations with students and their parents, and in his/her professional development. It is desirable that the questions addressed to oneself pass through the filter of particularity and timeliness, so as to refine teachers' systematic and critical thinking about the positive and negative aspects of teaching.

Reflection is not just a remedial tool, but a permanent research position. Teachers who adopt this approach are committed to integrating it into pedagogical life (Rudolph, 2019).

Reflection in teaching activity takes various forms, such as: retrospective and prospective interrogations, personal and collective reflections, self-reflections, collaborative self-reflections (Bocoş et al., 2009). All of these make the course of a reflexive-interactive pedagogy more effective, with a view to continuous professional development.

Based on international studies on professional development (Dewey, 1910, Frost, 2012; Lewin, 1946), we can conclude that a qualitative teaching performance is accompanied not only by scientific rigour, but also by the ability to identify and solve problems in concrete educational contexts. Thus, we want to follow how teachers investigate dysfunctional aspects of their teaching practice in order to improve classroom work. Dewey points out that teachers should understand the principles behind known reflective techniques that have worked in the past in order to give rise to new ones, updated to the contextual setting.

Only by reflecting on what has been done can a solid foundation for the practice of self-analysis of teaching activity and thus for the personal and professional development of teachers be obtained. When teaching works well, on the basis of a critical-constructive analysis of the teacher, optimal conditions for the teacher's development are created. Teachers increase their knowledge, deepen their understanding, develop new skills, broaden their perspective and increase their self-confidence, thus generating an impact on the effectiveness of the instructional-educational process as a whole.

2.2. Formative value of self-analysis of teaching activity

As a generic concept, self-analysis is considered "to be the process by which a subject is led to make a judgement on the quality of his or her progress, activity and acquisitions, in relation to predefined objectives, this being done according to precise assessment criteria" (Legendre, 2005, p. 118).

In educational terms, self-analysis refers to the self-reflective action of introspection, with an effect on the construction of self-image, being beneficial to self-awareness, having a regulatory impact on cognitive and non-cognitive behaviours, school motivation, involvement in work tasks, problem-solving, etc., in accordance with one's own traits/ particularities and potentialities (Bocoş, 2015, p. 111).

We also propose a personal definition of self-analysis of teaching activity: self-analysis of teaching activity is an interrogative, prospective and retrospective sequence on the main elements of structure, composition, events, experiences and feelings, accumulated in the educational act with the aim of resolving dysfunctionality, in order to achieve qualitatively superior results.

It is argued that systematic study and constant practice lead to self-improvement (Senge et al., 2016). We also subscribe to the idea that self-analysis of teaching activity can be "coached" in order to improve teachers' self-evaluative approaches considerably. Self-analysis of teaching activity⁶ has a formative value. Aspects that could be positively modified are:

- i. Determination of personal reflections of a cognitive, metacognitive, socio-moral nature, related to the design and management of teaching activity;
- ii. Identifying the strengths and weaknesses of one's own theoretical and practical approach;
- iii. To develop evaluation and self-evaluation skills;
- iv. Thorough study of the situations encountered in practical-actional terms;
- v. Developing and promoting constructive critical thinking and attitude;
- vi. Identification of levers and strategies for regulating teaching activity;
- vii. Anticipating ways of future action in the didactic approach.

Paying more attention to the self-analysis sequence of the teaching activity, the self-training, personal and professional self-development of teachers becomes more efficient.

The existence of a system of competences, complemented by attitudes and values structured in a professional manner, through hierarchical and social activities shapes the teaching profession. Within it, the valorisation of reflective skills has generated the emergence of the reflective paradigm in professional training. Romiță Iucu (2006) emphasized that the reflective practitioner creates and identifies means, innovative didactic ways, thus becoming a researcher. Such a teacher reflects on his/her own practices and analyses the positive aspects and difficulties encountered in his/her own teaching approach.

In carrying out self-analysis of teaching activity, value judgements are made about professional success. These judgements cover several categories of pedagogical analysis, relating to: the design of teaching activity, the conduct of teaching activity, the evaluation of teaching activity and self-evaluation. For each category the teacher measures the level at which he/she has accumulated concepts, approaches, good teaching practices, through his/her own observations.

This study addresses perspectives on how to quantify the level of teachers' reflective thinking, how to improve it, and how to cultivate self-analytical practitioners, briefly outlining types of experiences that could be included in professional development courses for teachers.

Since any issue is considered important, as long as the practice in that area points out aspects that need to be improved (Creswell & Plano Clark, 2010), we consider that the teachers' perception of the

level of reflection achieved in their teaching career is, in this context, an indicator of the self-analytical capacity and the effectiveness of the educational approach as a whole.

3. Research Questions

Our research interest is to investigate ways of valuing self-analysis of teaching activity among primary school teachers.

We start from the premise that having a high level of reflection among teachers will lead to the practice of self-analysis of their teaching activity and thus contribute significantly to their personal and professional development. We want to test this premise by exploiting the following research questions:

- i. What is teachers' understanding of self-analysis of teaching activity?
- ii. Is self-analysis of teaching activity practised among primary school teachers?
- iii. Are training courses on self-analysis of teaching activity organised?

4. Purpose of the Study

The aim of the research is: to explore by statistical means how self-analysis of teaching activity is perceived at national level among primary school teachers.

5. Research Methods

Through this quantitative research we used as the main source of data collection an original instrument, namely, an online questionnaire composed of nine Likert scale items, which measures both agreement/disagreement with some statements describing the self-analysis of teaching activity and the intensity of agreement/disagreement. The statements resulted from the operationalization of the central concept of self-analysis of teaching activity, namely the level of reflection achieved in teaching practices.

In accordance with the rigour of the research approach, we piloted this questionnaire for a small group of ten respondents, through which we validated the range of questions, the comprehensibility and coherence of the items, the degree of accuracy of the answers, the probable statistical errors and the time allocated to complete the form.

The data were collected during April 2022 using a questionnaire survey method, which was administered to a sample of 340 participants, primary school teachers from all over the country. The online questionnaire was published on several social media, in virtual educational communities, with participants responding on a voluntary basis.

The level of reflection achieved in the teaching career was operationalized using three variables (teachers' understanding of self-analysis of teaching activity, teachers' level of involvement in practicing self-analysis of teaching activity, interest of educational service providers in organizing courses on self-analysis of teaching activity), each of which was measured using appropriate items integrated into the questionnaire.

Affirmative statements were used for each item, asking respondents to agree or disagree on a scale with the following response options:

- (1) Total Disagree= DT; (2) Disagree= D; (3) Disagree= I; (4) Agree= A; (5) Total Agree= AT.

For each response on this scale, we assigned a numerical value, decoding according to logic: a higher agreement for the item in question indicates a well-determined level of reflection.

6. Findings

The analysis performed is univariate.

The variable Degree of teachers' understanding of self-analysis of teaching activity was designed with the starting point that any qualitative intervention is carried out following a theoretical foundation. Thus we were able to identify the teachers' interest in this topic, in order to broaden the horizon of knowledge and to start a holistic approach to self-analysis of teaching activity. Starting in this way, we asked the study participants to report on four items and for each to express their agreement or disagreement. The results obtained are presented in (Table 1).

Table 1. Questionnaire items correlated with the variable Teachers' understanding of self-analysis of teaching activity (percentage)

ITEMS	DT	D	I	A	AT
<i>I believe that self-analysis of teaching activity is very important for a desirable career path.</i>	0,3%	0%	1,2%	14,4%	84,1%
<i>I am satisfied with the data in the literature on the topic of self-analysis of teaching activity.</i>	2,9%	6,5%	27,4%	38,5%	24,7%
<i>I found more information about self-analysis of teaching activity in foreign, scholarly literature.</i>	3,5%	7,6%	28,5%	38,5%	21,8%
<i>I believe that self-analysis of teaching activity contributes significantly to increasing the quality of the instructional-educational process.</i>	0%	0,9%	2,6%	19,4%	77,1%

Of the 340 respondents, 286 fully support the idea that self-analysis of teaching is a predictor of professional progress. Only one subject considers this issue irrelevant for the upward path in a teaching career, thus registering a value gap of 83.8 percent. We also note that respondents show a moderate, uneven level of satisfaction with the literature resources on self-analysis of teaching activity, with a maximum value of 38.5% of those who are satisfied with the data from the literature, compared to the minimum value of 2.9% held by subjects who do not agree in any way with the quantity and quality of data obtained from the literature. Another important aspect is the source of this data, with the majority of teachers (38.5%) stating that they found more information about self-analysis of teaching activity in foreign, specialist literature. For the last item included in this variable, concerning the positive change that self-analysis of teaching activity can bring to the instructional-educational process, 262 participants expressed total agreement, followed by 66 others who agreed, and there were also 3 teachers who did not consider self-analysis of teaching activity beneficial for increasing the quality of education.

Variable Level of involvement of teachers in the practice of self-analysis of teaching activity captures the teacher's self-evaluative approaches, reflective attitude at cognitive and metacognitive level, favoured by the introspection of the requirements of the design, organisation, development and evaluation of teaching activities. This variable is described by two items in Table 2.

Table 2. Questionnaire items correlated with the variable Level of involvement of teachers in the practice of self-analysis of teaching activity (percentages)

ITEMS	DT	D	I	A	AT
<i>I am familiar with techniques that enhance self-analysis of teaching activity, which I apply systematically in the classroom.</i>	0,9%	5,6%	21,8%	48,2%	23,5%
<i>I consider myself an authentic and reflective teacher, where authentic means master of scientific content, facilitator of socio-emotional approaches, who sees learning as a lived experience.</i>	0,3%	0,9%	7,1%	42,9%	48,8%

There are 164 respondents who agreed that they know techniques that enhance self-analysis of teaching activity, which they apply in the classroom, followed by 80 respondents who claim to have mastered these techniques and apply them systematically in the classroom. However, in opposition are 19 teachers, i.e. 3, who state that they are not familiar with such techniques, and the important aspect influencing the value of the item is represented by 74 responses that marked on the scale used the variant indifferent. These answers may stem from a vague knowledge of the contents, from an uncertainty to apply them in such a way as to provoke the desired results. However, 312 teachers consider themselves reflective, 24 of them are reluctant to give their agreement and 4 claim not to be reflective teachers.

The variable Interest of course providers in organising courses on self-analysis of teaching activity was considered important because its validity ensures initial and in-service training of primary school teachers. It is feasible to be a reflective teacher as long as you have the appropriate resources (theoretical, methodological, and pragmatic). We wanted to find out whether such courses are organised at national level and whether teachers are inclined to follow them. This variable was highlighted by three items, included in Table 3.

Table 3. Questionnaire items correlated with the variable Interest of course providers in organising courses on the theme of self-analysis of teaching activity (percentages)

ITEMS	DT	D	I	A	AT
<i>I am aware that initial training programmes are organised on the subject of self-analysis of teaching activity.</i>	8,5%	17,9%	18,5%	28,2%	26,8%
<i>I am aware that there are in-service training courses on self-analysis of teaching activity.</i>	9,4%	17,1%	15,6%	28,5%	29,4%
<i>I have participated/participate in training courses on self-analysis of teaching activity.</i>	23,8%	16,8%	16,8%	22,9%	19,7%

Of the 340 respondents, 96 are aware of the fact that initial training programmes are organised on the subject of self-analysis of teaching activity, while 29 of them say they do not know of the existence of such programmes. The percentages are slightly higher when this topic is dealt with in in-service teacher training courses, with 100 respondents stating that such courses are organised, as opposed to 32 teachers who gave their total disagreement for this item. Most of the primary school teachers (138) participating in this survey did not participate in any programme/course on self-analysis of teaching activity. 57 of the

respondents marked "not at all", which leads us to believe that this topic was included transitorily in the courses/programmes they attended.

Next, we set out to compare the three variables with each other (Table 4). The purpose of this comparison is to determine the place that each variable occupies in generating the practice of self-analysis of teaching activity (Figure 1). Following the analysis of the answers obtained from the questionnaire, we calculated using the arithmetic mean the values of the three variables (ma = number of answers/number of respondents).

Table 4. Means of the variables obtained from the analysis of the responses

Variable	N (valid responses)	Minimum value	Maximum value	Average
<i>Teachers' understanding of self-analysis of teaching activity.</i>	340	1	5	4,26
<i>Level of involvement of teachers in the practice of self-analysis of teaching activity.</i>	340	1	5	4,13
<i>Interest of course providers in organising courses on self-analysis of teaching activity.</i>	340	1	5	3,31

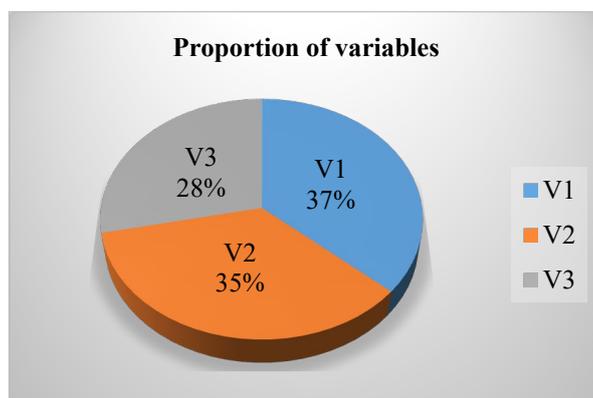


Figure 1. Proportion of variables obtained from analysis of responses

Analysing the responses obtained, we identified that the first variable (V1): teachers' understanding of self-analysis of teaching activity presents the highest percentage, with an average of 4.26, so we are glad to know that teachers understand the importance of self-analysis in teaching activity, they are informed in the literature on this topic, considering that by applying it in the instructional-educational process will bring more value. The second variable (V2): the level of teachers' involvement in practicing self-analysis of teaching activity, confirms that primary school teachers practice reflection in the classroom, using known techniques of self-analysis of teaching activity. The question we ask next is how systematically and effectively do they work? The third variable (V3): the interest of course providers in organising courses on the topic of self-analysis of teaching activity, scored an average of 3.31. We identified that there are providers who promote such initial training programmes and in-service training

courses, but the level of teacher participation in them is low. Thus, we distinguish the need for training the community of teachers in the field of self-analysis of teaching activity, for the acquisition of effective techniques of self-reflective actions, examples of good practice in teaching activity, leading to introspection, self-awareness and motivation.

7. Conclusions

This research is of a constitutive nature and consists of an exploratory investigation on the self-analysis of teaching activity among primary school teachers in Romania.

Following the analysis of the answers reported on the three variables: the degree of teachers' understanding of self-analysis of teaching activity, the level of teachers' involvement in the practice of self-analysis of teaching activity, the interest of course providers in organizing courses on the theme of self-analysis of teaching activity, the high and very high percentages obtained indicate the interest of teachers in reflecting on the educational actions undertaken. We believe that the use of socio-demographic variables, such as: gender, biological gender, age, years of teaching experience, school environment, would have allowed us to extend the analysis of the data from a comparative point of view, so that we could have identified the differences in opinions.

We believe that, starting from the perception of primary school teachers in Romania on the self-analysis of teaching activity expressed in this questionnaire, we will be able to intervene, as future research directions, with: identification of methods, techniques, tools and practices that could promote self-reflective actions in the classroom; sociometrist analysis of groups of teachers in order to stimulate collective reflective practice, verification of the relationship between experience - self-analysis - generalization and application.

References

- Bocoș, M. (2015). *Dicționar praxiologic de pedagogie* [Praxiological Dictionary of Pedagogy] (vol.1: A-D). Paralela 45.
- Bocoș, M., Catalano, H., Avram, I., & Someșan, E. (coord). (2009). *Pedagogia învățământului primar. Instrumente didactice* [Primary education pedagogy. Teaching tools]. Presa Universitară Clujeană.
- Carierea didactică și parcursul profesional. (2021). *România educată. Proiect al Președintelui României* [Educated Romania. Project of the President of Romania]. <http://www.romaniaeducata.eu/wp-content/uploads/2021/07/Raport-Romania-Educata-14-iulie-2021.pdf>
- Creswell, J. W., & Plano Clark, V. L. (2010). *Designing and conducting mixed methods research* (2nd ed.). Sage.
- Dewey, J. (1910). *How We Think: A Restatement of the Relation of Reflective Thinking to the Educative Process*. D.C. Heath & Co Publishers.
- Frost, D. (2012). From professional development to system change: teacher leadership and innovation. *Professional Development in Education*, 38(2), 205–227. <https://doi.org/10.1080/19415257.2012.657861>
- Iucu, R. (2006). *Formarea cadrelor didactice. Sisteme, politici, strategii* [Teacher training. Systems, policies, strategies]. Humanitas.
- Killion, J., & Todnem, G. (1991). A Process for Personal Theory Building. *Educational Leadership*, 48(6), 14–17. <https://eric.ed.gov/?id=EJ422847>
- Legendre, R. (2005). *Dictionnaire actuel de l'éducation* [Current dictionary of education]. Guerin.

- Lewin, K. (1946). *Cercetarea acțiunii și problemele minorităților* [Action research and minority issues]. *Jurnal de probleme sociale*, 2(4), 34–46.
- Luft, J. (1969). *Of human interaction: The Johari model*. Mayfield Pub.
- Rudolph, J. (2019). Becoming a critically reflective teacher (2nd ed.). Book reviews. *Journal of applied learning & teaching*, 2(2). <https://doi.org/10.37074/jalt.2019.2.2.22>
- Russel, T., & Korthagen, F. (2021). *Linking practice and Theory; The pedagogy of Realistic Teacher Education*. Routledge.
- Schön, D. (1987). *Educating the Reflective Practitioner*. Jossey Bass.
- Senge, P., Cambron-McCabe, N., Lucas, T., Smith, B., Dutton, J., & Kleiner, A. (2016). *Școli care învață. A cincea disciplină aplicată în educație* [Learning schools. The fifth discipline applied in education]. Trei.
- Șerbănescu, L., Bocoș, M.-D., & Ioja, I. (2020). *Managementul programelor de formare continuă a cadrelor didactice* [Management of in-service teacher training programmes]. Polirom.
- Vlăsceanu, L. (2019). *Educație și putere. Sau despre educația pe care încă nu o avem* [Education and power. Or about the education we don't have yet]. Polirom.