



THE INTERDEPENDENCE BETWEEN PERCEIVED SELF-EFFICACY AND SELF- ASSESSMENT SKILLS OF ACADEMIC PROGRESS IN STUDENTS

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Abstract

Self-assessment in the school environment can be defined as the students' ability to make valuable judgements about their own academic performance, either by reference to the teacher's educational goals, previous academic results, or the academic performance of other colleagues. The formation of such self-assessment skills is strongly influenced by a number of internal and external psycho-pedagogical factors, including chronological age, motivation for learning, level of cognitive development, perceived self-efficacy, the teacher's teaching style, the social status of the student's family, their group affiliation, etc. Starting from this point, the purpose of the present research was the analysis of the students' degree of awareness of the role of perceived self-efficacy in the formation of objective didactic self-evaluation skills. The research sample consisted of 108 students, currently attending the Psycho-Pedagogy and Methodology Study Program courses at the University of Oradea and Emanuel University of Oradea, Romania. The research methodology was targeted at requesting these students to self-assess their performance in a subject of the afore-stated study program, respectively administering a scale for measuring personal self-efficacy. The results showed that most of the students tended to either evaluate themselves objectively or under-evaluate themselves, against the backdrop of a high level of perceived self-efficacy, respectively of superior academic performance.

Keywords: *academic performance, didactic self-evaluation skills, perceived self-efficacy, self-image, teaching career*

Introduction

One of the basic principles on which the educational process is based is that of the active and conscious participation of the individuals involved in the learning process, in developing and bringing their own personality to perfection. Both the psycho-pedagogical literature as well as common sense point out the fact that, in the pedagogical practice of the last decades, the effects of this principle have thus far only started to make headway with regard to teaching/learning strategies and to a much lesser extent in relation to examination strategies (the student being practically forced to accept with resignation the results of the evaluation). Several authors (Guțu & Vicol, 2014) have opined that the controlled involvement of students in the assessment of their own school performance will confer formative valences upon it and a particular efficiency in that the teacher, based on the students' opinion acquires confirmation of his appreciations; thus students become subjects of the pedagogical action and are able to better appreciate the value of their own work, thus developing an intrinsic motivation and a positive attitude towards academic learning. Therefore, the essential benefit that the students' active involvement in the didactic evaluation could have both on the educational agents and on the entire instructive-formative process is represented by the increase of their capacity for self-regulation and self-development (Marian, 2018).

New global trends in conceptualizing and designing the evaluation of academic results take into account the focus on academic skills, identified as the final goals of education; the transition from the normative assessment, focused on the teacher, to the formative assessment, focused on the student and on their functional competencies; changing the assessment's design conditions (gradual transition from standardized assessment to authentic or Hayes contextualized assessment of academic results). In recent years, a redefinition of school competency has been achieved, defining it as being a structured set of knowledge, skills, abilities, and attitudes acquired through learning, which facilitate the identification and the sorting out, in various contexts, of problems characteristic to a certain field (Petrovan, 2015).

One of the main components of interactive assessment is educating the students' capacity for self-appreciation and self-assessment. In order for that to happen, it is necessary to provide them with criteria (benchmarks) that they can understand and internalize through verbalization (Andrade, 2010; Sargeant, 2008). The transition from evaluation to self-evaluation is not instantaneous, the whole process being a long one and requiring the involvement of all educational actors (Marinescu, 2021).

Research Problem

Didactic self-assessment targets the student's ability to make valuable judgements about their own school competencies and performances, as well as generally, about themselves (Blândul, 2014). In other words, school self-assessment targets the relationship established between the student's cognitive, emotional, and practical skills that facilitate the achievement of certain academic performances as an expression of accomplishing a learning task. The two dimensions, however, are not always directly related. Sometimes students may possess high availability, but this does not in fact become actualized through completion of an academic task at optimal parameters. However, an inverse situation is also possible, in which students acquire special didactic performances while possessing only limited abilities for that activity. In such cases, the precise role of academic self-assessment is to reflect the real level of their own academic competencies in order to facilitate the achievement of expected performance.

The development of didactic self-assessment skills in students has awakened a real interest from many research studies, who have placed it in the "unconventional assessment" area of interest. The motivation for such an option is given by the fact that academic self-assessment transcends the traditional framework of school progress evaluation, placing the student in the double capacity of both "subject" and "object" of this approach. On the other hand, in issuing value judgments about his own academic performance, the student could detach himself from the specificity of the didactic objectives established by the teacher (which, in certain situations, he/she does not even know), of the criteria for awarding academic grades or the rigor of the evaluation strategies administered by the educator. On the contrary, in formulating assessments regarding their own academic performance, the student could take into account personal educational goals, the effort made in order to achieve learning tasks or other students' performance (Kiss, 2018). In these circumstances, the development of students' didactic self-evaluation competencies is based on the following explanatory theoretical models (Blândul, 2014):

- A. *The no-objectives self-assessment model* – proposes a type of assessment in which the decision is made primarily according to the context and the educational agents involved.
- B. *The model of responsive self-assessment* – the process is predominantly focused on interaction and negotiation, depending on the concrete realities in the classroom.
- C. *The model of illuminative self-assessment* – the process is based on exclusively qualitative characteristics.

D. The model of naturalistic self-assessment – offers a holistic vision on the objectives and components of self-assessment, explaining their effects, significance, and functioning.

E. The model of qualitative self-assessment – involves the following sequences: observation, description, interpretation, estimation.

Neacșu (2011) considered it necessary to develop students' self-assessment capacities, as an act of reflexive self-observation of their own cognitive processes, of their own behaviors, conducts, attitudes, but also of their own deficiencies in exercising the didactic behavior; in terms of motivation-attitude, self-assessment cultivates students' inner motivation as regards the future teacher profession and makes them responsible, making them much more aware of the importance of their upcoming didactic mission.

According to these explanatory theoretical models, the didactic self-assessment competencies are formed progressively, requiring time and the involvement of all educational factors. Thus, on the external level, the self-assessment of the academic progress is determined by way of accomplishing the didactic act (teaching/learning/evaluation), by the students' social status, their group affiliation and family status. Internally, self-assessment has a bifactorial determination, being influenced by an affective-motivational and cognitive-estimative component (Andrade, 2010; Panadero & Romero, 2014; Zimmerman & Schunk, 2011). Also of great importance are the chronological age of the student, as well as the type of self-assessment used. All these factors contribute to the shaping of the person's self-image, a phenomenon closely interconnected with the development of didactical self-assessment competence.

The period of adolescence / post-adolescence – corresponding to the high-school cycle, respectively, most often, the university years – offers a series of manifestations that define it as one of the most intense periods in one's entire life. Even if in the end they can be considered physically, intellectually, or morally mature, the process of emotional maturation continues. Adolescents get hooked on temptations such as: the need to stand out at any cost, to rebel, to have illusions of invulnerability, to always seek "new thrills", to have a heightened degree of aggression, the need to expand their social network, the need to succeed, etc. Under these circumstances, the balance between the elements that make up the components of self-assessment may break, most likely in the inversely proportional direction. Thus, adolescents may face one of the following two situations: either they show a high level of ambition and over-estimate their own potential, consequently having the tendency to underestimate the difficulty of the task; or, on the contrary, the level of aspiration and estimation of their own potential is reduced, in which case there is an overestimation of the degree of difficulty of the task. Therefore, the intellectual development on which many teachers rely in the practice of self-assessment in adolescents, cannot be considered the ultimate argument to accomplishing this approach, as long as the psycho-affective instability characteristic of the age is neglected. However, the formation and development of self-assessment competence (through teaching methods and not only) can play a special regulatory role in achieving the balance between the afore-mentioned factors, with a special formative effect for bringing to perfection the personality of young people (Andrade & Brookhart, 2020; Bourke, 2014; Wang, 2017).

As already shown in a previous study (Blândul & Bradea, 2022), many of the research studies on self-assessment associate it with self-efficacy. Bandura (1977, 1997) formally defined perceived self-efficacy as personal judgements regarding one's ability to organize and perform tasks in order to achieve designated goals and sought to assess its level, generality and strength in activities and contexts. The level of self-efficacy refers to its dependence on the difficulty of a certain task; generality refers to the transferability of self-efficacy beliefs between activities; the strength of perceived efficacy is measured by the certainty regarding the accomplishment of a given task (Bandura, 1997). In terms of its content, self-efficacy measures focus on performance capabilities rather than on personal qualities, such as someone's physical

or psychological characteristics. Self-efficacy beliefs have a multidimensional form and differ depending on the context (the subject matter for which they are being assessed, the place where learning takes place, the task's level of difficulty, the involvement in assessment and self-assessment processes etc.). Finally, self-efficacy judgements refer specifically to future functioning and are assessed before students carry out the relevant activities. According to Bandura (1997), this antecedent property positions self-efficacy judgements so that they play a causal role in academic motivation.

In a study exploring self-efficacy in writing, Pajares et al. (2007) found that the way in which students interpret the results of their own past writing performances can make a key contribution to their sense of self-efficacy. In another study, Graham et al. (2018) found that the sense of self-efficacy contributed 10% to predicting students' writing outcomes and the percentage is even higher (16.3%) for students with disabilities.

Studies that focus on the relationship of students' self-efficacy to past performance and its impact on future performance have explored a variety of activities and their potential to increase students' self-efficacy (Bandura, 1997; Pajares, 1997; Schunk, 1989, 1991; Shell et al., 1989; Zimmerman, 1995, 2000; Zimmerman & Kitsantas, 1997, 1999). One of the most notable of these is self-assessment which occurs when people evaluate their own work, identify differences between their current and desired performance and reflect on ways they can improve (McMillan & Hearn, 2008). Guiding students through this process of self-reflection and supporting the development of self-assessment skills offers them a sense of security and control over their own learning, which can increase their motivation and self-efficacy (Panadero et al., 2016). The self-assessment process also contributes to students' sense of self-efficacy and conditioned knowledge as they commit to reflecting on their own learning and improving their own work (Corkett et al., 2011; Schunk & Swartz, 1993). A planned review process that includes student self-assessment and reflection (McMillan & Hearn, 2008) has a positive impact on self-efficacy. The recommendations made by Hayes (2012) in this regard are meant to encourage students to take on their own learning, while allowing them to assess their strengths and areas that can be improved, providing guidance on how to perform complicated tasks, and encouraging them to reflect on their performance.

Self-assessment is a very complex process, but it is not done in isolation. Beyond the internal bio-psychological factors mentioned, there are also a number of external factors. Thus, the type of self-assessment performed by students is influenced both by the requirements of the teacher and the academic status of that student, as well as by the parental requirements and the status of the student's family. Recognizing the permanent nature of the process, many authors differentiate between formal and informal self-assessment. The formal dimension is given by the organized, systematic, and explicit character of the phenomenon. It appears when students are confronted with the task that needs to be solved and manifests itself by the issue of value judgments (based on objective criteria) regarding the actual performance of the student, judgments that are then to be superimposed over those of teachers or parents, colleagues, or the social group. On the contrary, informal self-evaluation has a spontaneous, non-systematic, and implicit character, it is not determined by a specific learning task. It is not based on rigorously objective criteria, and it materializes into personal opinions or impressions; nevertheless, it has a special value in shaping the self-image and the background on which the formal self-assessment will be performed (Maier, 2014).

As already mentioned, the development of self-assessment / inter-assessment competence is not a process that can be done "by itself", by simply accumulating academic and social experiences. The decisive role belongs to the teacher who has a role model value for his students, who select the behavior manifested in a certain context and gradually internalize it through imitation. Specifically, while observing the teacher during an examination event, the students will monitor their mode of action (the end goals they have in mind, the criteria according to

which they are guided in formulating assessments, the methods and the tools they use, etc.), transforming these sensory experiences (based on memory associations) into others, structured and integrated at a higher cognitive level, manifested thereafter into responses applicable to analogous situations (becoming able to adopt the behavior of an evaluator for himself or for others). In fact, the appreciation made by the teacher and internalized by the student becomes self-appreciation. Based on the assessments made by the teacher, the student can become aware of the criteria used and of the academic requirements, thus adjusting their aspirations and behavior to properly meet them. Also, the teacher's assessments are reflected in the way the student is perceived by their peers. Gradually, by internalizing these norms, students will be able to get to know themselves and position themselves as close as possible to reality within the group to which they belong. Hence the overwhelming importance of evaluating as accurately as possible the performance of students for their subsequent development (Pop, 2017). To be an as effective as possible model for developing self-assessment competency in students, it is necessary that the teacher be held in high esteem as well as provide students with easily accessible imitable behavior and very clear instructions.

Additionally, when discussing pedagogical deontology with reference to docimological behaviors, several useful recommendations can be made to all teachers. Starting from the axiom that evaluation is a means by which the teacher guides the students' development process, many authors argue that they should be evaluated for what they know, can, do and the positive aspects of their own academic behavior. The process must have a prognosticative character (anticipate and support the evolution of students), and, in the case of poor grades, they must be strictly limited to the conditions that generated them. Analogous to the axiom that assessment must reflect teaching, we are reminded of the teachers' moral obligation to ask of students only behaviors that they themselves possess, to recognize and attribute to them the merits for their successes and to take responsibility for possible collective failures. Finally, the need for evaluation transparency is underlined by the students' right to know the academic grades received, the reasons they got them, and, as the case may be, the teachers acknowledging their mistake and intervening in order to mitigate its effects.

Research Focus

One of the vocational training options that many universities in Romania offer their students is the Psycho-pedagogy and Methodology Study Program, which, once completed allows its graduates to engage in pre-university and higher education teaching. The reasons that can persuade a student to opt for a teaching career are numerous. Some of them could be: the pleasure of working with other people (children, youth, etc.), the joy of sharing with others the knowledge gained, the desire to be always up to date with scientific field advancements, the distinguished status in the community, an attractive salary, flexible work schedule, extended vacations etc. (Pânișoară, 2017). Beyond the specialized psycho-pedagogical and methodical training, in order to become a good teacher, it is very important for the current student to develop those qualities that will allow them to become a professional and behavioral role model for their students. One can mention here an impeccable moral conduct, consistency in decision making, balance in managing interpersonal relationships, entrepreneurship, objectivity in evaluating students, honesty in self-assessing one's own academic and personal performance, etc. These qualities must be developed as early as possible, their perfection being achieved gradually throughout one's professional life, either formally (by going through continuous training programs) or informally (by judiciously internalizing readily available behavioral patterns or by intrinsic permanently motivated self-improvement) (Bradea, 2014).

In this context, the development of self-assessment/inter-assessment skills in students becomes a top priority. Among the benefits that an honest self-assessment can have on the

person in question one can acknowledge: an accurate reporting of one's own performance in relation to those taken on through the training objectives and those of other individuals, an increase in self-confidence, self-knowledge and proper capitalization of one's own qualities, respectively the minimization of one's own limits, the responsible undertaking of one's status and role in the community, building-up a positive self-image, etc. The importance of developing such qualities is paramount not only for the student in question, but also for his future students, given the fact that he will become an educator. It is known that the best strategy to teach others is through personal example, and a teacher who exhibits trust and security can become an inspirational leader for his students (Blândul, 2015).

Therefore, the purpose of the present research was the analysis of the students' degree of awareness of the role of perceived self-efficacy in the formation of objective didactic self-evaluation skills. Furthermore, the need to study these teaching elements is all the greater as their acquisition by future teachers can give them a higher degree of security and confidence in relation to their professional careers and to their students.

Consequently, the research was centered upon how the students' level of perceived self-efficacy influences their academic performance, respectively their objective didactic self-assessment competencies.

Research Methodology

General Background

The actual research took place at the end of the second semester of the 2020 / 2021 academic year (June 2021) in the "Fundamentals of Pedagogy. The Theory and Methodology of the Curriculum" course of study, included in the curriculum of the Psycho-pedagogy and Methodology Study Program. The purpose of the present research was the analysis of the students' degree of awareness of the role of perceived self-efficacy in the formation of objective didactic self-evaluation skills. The authors applied, a didactic test with 12 items and a scale test with ten items. Following the application of these two tests, a number of 108 answers were given. In what follows we propose to present the obtained results for the 108 respondents. Also, we aim at testing the hypothesis that there are statistically significant differences between the level of self-efficacy perceived by students and their skills for self-assessment of school progress.

Sample

The research sample was made up of 108 first year students ($N=108$) attending the courses of the Psycho-pedagogy and Methodology Training Program offered by the University of Oradea, Romania. The sample size was obtained by adding the total number of students from four of the most relevant University of Oradea faculties participating in the study program. This program is separate from the other bachelors' or masters' degree programs, it is optional and unique within the entire university, and it can be attended by all students interested in a teaching career, regardless of the faculty in which they study. Out of a total of 15,000 students, currently attending the University of Oradea (16 faculties and departments), approximately 1,200 (8%) attend the courses of the aforementioned program, and the sample selected for the present research represents a percentage of 9% of all students enrolled. The sample can be considered statistically representative for the student population for which it was selected, namely 25% of the University of Oradea faculties. The selection procedure was conducted through random sampling using approximately 9% of the students enrolled in the Psycho-pedagogy and Methodology Study Program.

Instrument and Procedure

The research included two important stages: the analysis of the degree of development of students' didactic self-assessment competencies during the end of semester exam, respectively the administration of the Scale for measuring self-efficacy (Schwarzer & Jerusalem, 1995). The General Self-Efficacy Scale is correlated to emotion, optimism, and work satisfaction. Negative coefficients were found for depression, stress, health complaints, burnout, and anxiety. Thus, the examination of students in the afore-stated course of study was performed by administering a didactic test consisting of 12 items. The correction scale, respectively the scoring system was explained for each of these. After completing the test, the students were invited to self-assess the grade they thought they would get and argue their choice. In parallel, the students were asked to complete the Scale for measuring personal self-efficacy, according to the instructions given. The scale consisted of ten items, the student being able to award a range of points for each of them, starting from 1 point (very little) up to 5 points (very much). Following the addition of these values, the student could be placed in one of the following ranges: 1-10 (very low self-efficacy), 11-20 (low self-efficacy), 21-30 (moderate self-efficacy), 31-40 (high self-efficacy), respectively 41-50 (very high self-efficacy). The accomplishment of the two afore-stated work tasks was done nominally and voluntarily by each student participating in the research, this being necessary in order to be able to establish the association between the degree of objectivity of the didactic self-assessment and the level of perceived self-efficacy. Due to the COVID 19 pandemic, both the didactic test and the scale were administered online. Therefore, the two instruments were loaded into an online platform, dedicated to the course (www.e.uoradea.ro), the students having the option to download, solve, and upload them back again. After finalizing the loading process for the two instruments by the students, the authors centralized all the answers into an Excel document and processed them statistically, using the Data Analysis tool.

Data Analysis

The quantitative interpretation of the research data was made by comparative analysis of students' self-assessed grades and of those given by the teacher, respectively of the general statistical point-averages calculated for these two categories of academic grades, these values being related to the level of perceived self-efficacy obtained by the students following the administration of the scale. Following the analysis of the statistical data referring to the students' didactic self-evaluation in relation to the level of perceived self-efficacy, we aim at testing the relationship between the level of self-efficacy perceived by the students and their didactic self-evaluation competencies, materialized by the degree of objectivity of this approach.

For the present research, students from 4 such faculties were selected: the Faculty of Baptist Theology, within Emanuel University of Oradea (15 students, representing a percentage of 13.8% of all the students), the Faculty of Geography (27 students, representing a percentage of 25% of all the students), the Faculty of Physical Education (47 students, representing a percentage of 43.1% of all the students), respectively the Faculty of History (23 students, representing a percentage of 18.9% of all the students). Out of the students included in the research, 79 (73.1%) were female, and 29 (26.9%) were men, all aged between 19 and 22.

Research Results

Starting from the obtained data at the sample level, we would present the results of the didactic self-evaluation of the students, compared to the level of perceived self-efficacy of the students. The results will be presented individually for each faculty, followed by a comparison of the obtained results.

Table 1
Results of Faculty of Baptist Theology Students' Didactic Self-evaluation in Relation to the Level of Perceived Self-efficacy

| Level of self-efficacy | N | % | Self-evaluation | | | | | |
|------------------------|----|-------|------------------|-------|----------------------|----|-----------------|-------|
| | | | Under-evaluation | | Objective evaluation | | Over-evaluation | |
| | | | N | % | N | % | N | % |
| Moderate | 4 | 26.67 | 2 | 50 | 2 | 50 | - | - |
| High | 6 | 40 | 2 | 33.33 | 3 | 50 | 1 | 16.67 |
| Very high | 5 | 33.33 | 1 | 20 | 4 | 80 | - | - |
| Total | 15 | 100 | 5 | 33.33 | 9 | 60 | 1 | 6.67 |

Table 1 displays data regarding the number, respectively the percentage of Faculty of Baptist Theology students who undervalued, objectively evaluated, or overvalued themselves, undertaking thus a certain degree of perceived self-efficacy. Most students (60%) have objectively self-assessed their own exam readiness, 33.33% of the students undervalued themselves and only 1 student overvalued themselves. It should be noted that most of them scored high on the self-efficacy scale, which suggests that well-trained students also possess a high level of self-worth.

Table 2
Results of Faculty of Geography Students' Didactic Self-evaluation in Relation to the Level of Perceived Self-efficacy

| Level of self-efficacy | N | % | Self-evaluation | | | | | |
|------------------------|----|------|------------------|------|----------------------|------|-----------------|---|
| | | | Under-evaluation | | Objective evaluation | | Over-evaluation | |
| | | | N | % | N | % | N | % |
| Moderate | 7 | 26.2 | 3 | 42.5 | 4 | 57.5 | - | - |
| High | 11 | 40.6 | 6 | 54.2 | 5 | 46.8 | - | - |
| Very high | 9 | 33.3 | 4 | 44.5 | 5 | 55.5 | - | - |
| Total | 27 | 100 | 13 | 43.4 | 14 | 56.6 | - | - |

The results displayed in Table 2 indicate that there is a fairly large number of Faculty of Geography students who underestimated themselves, respectively who undertook a moderate level of perceived self-efficacy. Furthermore, students possessing a high level of self-efficacy had a good ability for didactic self-assessment, being able to objectively assess their own skills developed in the pedagogical discipline studied.

Table 3
Results of Faculty of Physical Education Students' Didactic Self-evaluation in Relation to the Level of Perceived Self-efficacy

| Level of self-efficacy | N | % | Self-evaluation | | | | | |
|------------------------|----|------|------------------|------|----------------------|------|-----------------|------|
| | | | Under-evaluation | | Objective evaluation | | Over-evaluation | |
| | | | N | % | N | % | N | % |
| Moderate | 9 | 19.4 | 7 | 77.8 | 1 | 11.1 | 1 | 11.1 |
| High | 23 | 48.3 | 9 | 39.1 | 12 | 52.1 | 2 | 8.8 |
| Very high | 15 | 32.8 | 3 | 20 | 12 | 80 | - | - |
| Total | 47 | 100 | 19 | 40.4 | 25 | 53.2 | 3 | 6.4 |

Similar results were obtained for the Faculty of Physical Education (Table 3). Most of the students (53.2%) self-assessed objectively for the examination, followed by the students who underestimated themselves (40.4%). Most respondents undertook a high level of perceived self-efficacy, demonstrating a high level of objective evaluation, while their peers who possessed a moderate level of self-efficacy were more likely to underestimate themselves.

Table 4
Results of Faculty of History Students' Didactic Self-evaluation in Relation to the Level of Perceived Self-efficacy

| Level of self-efficacy | N | % | Self-evaluation | | | | | |
|------------------------|----|------|------------------|-------|----------------------|-------|-----------------|-----|
| | | | Under-evaluation | | Objective evaluation | | Over-evaluation | |
| | | | N | % | N | % | N | % |
| Moderate | 3 | 14.1 | 2 | 66.66 | 1 | 33.34 | - | - |
| High | 14 | 60.8 | 6 | 42.8 | 7 | 50 | 1 | 7.2 |
| Very high | 6 | 25.1 | - | - | 6 | 100 | - | - |
| Total | 23 | 100 | 8 | 34.2 | 14 | 60.8 | 1 | 5 |

The Faculty of History students display both a high degree of objective didactic self-assessment skills and perceived self-efficacy (Table 4). Moreover, it has been noted that all students who have awarded themselves a high degree of self-efficacy can objectively assess their own exam readiness, while, of the three students who awarded themselves a moderate degree of personal self-efficacy, two have underestimated themselves.

The results seem encouraging, considering the context in which, after the first university year, most students demonstrate a good ability to self-assess their own academic performance. Some of the students' tendency to underestimate themselves can be interpreted in terms of insufficient preparation for the course of study in which the research was conducted. Given the fact that this is an optional course in relation to other specialized courses, there is also the risk of it being taken somewhat lightly. Furthermore, as it is a brand new and distinct study subject, unlike the rest, it requires a different set of competencies and a different approach as opposed to that applied to other subjects, deemed basic. On the other hand, the results obtained on the Scale for measuring self-efficacy show that most respondents have either a high or a very high degree of confidence regarding their self-worth. Interestingly, most students who have attributed themselves such high levels of personal effectiveness have objectively assessed their own academic performance, being aware of their own abilities and acting accordingly. These results can therefore be an important first indicator that a high level of perceived self-efficacy

(displayed by self-confidence and a positive self-image) can be a relevant predictor for the development of didactic self-assessment skills.

Table 5
Self-assessed Academic Grades, Respectively Grades Received by the Students Included in the Research in Relation to the Level of Perceived Self-efficacy

| Faculty | Level of perceived self-efficacy | Statistic point average of self-evaluated grades | Statistic point average of grades received |
|--------------------|----------------------------------|--|--|
| Baptist Theology | Moderate | 8.50 | 9.00 |
| | High | 9.66 | 9.83 |
| | Very high | 9.40 | 9.80 |
| Geography | Moderate | 7.57 | 8.00 |
| | High | 7.95 | 8.45 |
| | Very high | 8.22 | 8.66 |
| Physical education | Moderate | 8.33 | 9.00 |
| | High | 8.60 | 8.91 |
| | Very high | 8.66 | 8.86 |
| History | Moderate | 8.00 | 8.66 |
| | High | 8.85 | 9.21 |
| | Very high | 9.16 | 9.16 |

Through analyzing the relationship established between the statistical point averages of self-assessed and real grades, received by the students for the exam taken in the previously stated course of study, compared to the level of perceived self-efficacy (table 5), some interesting observations can be deduced. First, the statistical point average of self-evaluated grades is lower than that of grades literally received by the students, which confirms the tendency of some of them to underestimate themselves. The academic grades received by the students were mostly good, considering that their statistical point averages were comprised between the interval of 8.00 – 9.83. The students' tendency to underestimate themselves can be demonstrated by the fact that the statistical point averages of self-assessed academic grades were comprised between the interval of 7.57 – 9.16. On the other hand, it can be noted that the students who possess the lowest degree of perceived self-efficacy, self-assess with the lowest academic grades and obtain the lowest academic performance (except for those from the Faculty of Physical Education). Also, the optimization of academic grades is directly proportional to the increase in the level of perceived self-efficacy only in what self-assessment is concerned, since, in relation to the actual academic grades obtained, there are some atypical cases. In other words, as students gradually improved their own self-image, they self-assessed with increasingly higher grades (except for the students in the Faculty of Baptist Theology). That, however, did not necessarily mean that they also got these same grades after the teacher's evaluation. The students with the highest level of perceived self-efficacy seem to also be the ones who self-assess the most objectively, the best example being that of those from the Faculty of History. Consequently, the analysis of these results reinforces the idea that the increased level of perceived self-efficacy contributes substantially to the development of students' didactic self-assessment skills, an increased level of self-esteem giving them confidence that they can achieve superior academic performance.

Table 6
Statistical Differences between the Level of Perceived Self-efficacy and Students' Didactic Self-evaluation Competencies

| Indicator | Students' didactic self-evaluation competencies |
|--|---|
| Students' level of perceived self-efficacy | $\chi^2 = 34.548$ $p = .385$ |

Resuming, the specific hypothesis of this research was that there are statistically significant differences between the level of self-efficacy perceived by the students and their skills to self-assess academic progress. Considering the results of the Chi-square test, presented in Table 6, it is safe to say that the null hypothesis cannot be rejected ($p = .385$), therefore, between the level of self-efficacy perceived by the students and their skills to self-assess academic progress, there are no statistical differences. These results statistically validate the preliminary findings according to which students' increased level of perceived self-efficacy leads to the optimization of their academic performance, respectively to the development of their didactic self-evaluation skills expressed by an increased degree of objectivity of this process. In point of fact, a student with confidence in his own abilities, possessing a strong self-image and self-esteem, respectively self-worth is able to tackle any learning task with the conviction that they can complete it successfully. In turn, one accomplishment leads to another and so the "virtuous circle" will "be able to soar" to a higher level. This is just one of the reasons why students need to be provided with as many favorable opportunities to demonstrate their own worth. Thus, their involvement in programs that contribute to the formation and development of their self-assessment skills can be a very good model.

Discussion

The first feature that can be discussed refers to the stages to be gone through by the students in order to develop self-assessment skills of academic progress. The results obtained in this research confirmed the findings of Sera and McPherson (2019) students with the highest academic performance have the highest degree of perceived self-efficacy, respectively self-assess most objectively. These students have become aware of their own value and their school behavior mirrors that, their academic success contributing to the development of self-esteem and encouraging them to relate correctly to the requirements of the teacher and their own performance, respectively the requirements of those around. At the other end of the spectrum are students with modest academic performance, possessing insufficient confidence in their own worth, implicitly prone to the tendency to underestimate themselves. This is one of the reasons why it is recommended to give students the opportunity to demonstrate their own abilities through curricular and extracurricular activities, which will allow them to achieve various accomplishments, develop self-esteem and self-efficacy and, finally evaluate themselves as objectively as possible.

A second important aspect to be discussed is the increased degree of subjectivity of didactic evaluations made through the use of online tools. In point of fact, both common sense and certain psycho-pedagogy specialists (Guțu & Vicol, 2014; Marinescu, 2021) bring up the tendency of underestimating students through on-line examination strategies, bringing as the main justification the fact that the teacher cannot verify the actual identity of the individual who solved the assessment task and the general conditions in which this process was carried out. Other authors (Kaur et al., 2020; Moffitt et al., 2019) discuss a number of psycho-individual factors that may influence student performance in terms of distance assessment, among which

could be mentioned: the individual's mood at the time of solving the assessment task; the time of day this occurred, the preference for this mode of assessment given by the increased degree of psycho-emotional comfort felt by students at the time of the exam, etc. It can also be added that the examination is not taken in the same conditions by all students, each of them having the freedom to decide when and how much time they are willing to devote to this activity (Petrovan, 2015). Due to the COVID 19 pandemic, the 108 subjects of this research were evaluated online, which increased the degree of subjectivity of this process. However, the results of this research show that these limits can be minimized through a high degree of personal self-efficacy for each student. The results analyzed in the previous paragraphs indicate that students possessing a high degree of personal self-efficacy have better developed didactic self-assessment skills, while those with a lower degree of self-confidence most often either underestimate or overestimate themselves. It follows from here that, beyond reducing as much as possible the influences of the factors stated in the psycho-pedagogical literature, in order to ensure an objective didactic evaluation which is congruent with the students' assessment, it is important to engage them in educational activities that develop their self-esteem and self-awareness (Maier, 2014).

Conclusions

It can be ascertained that the formation of self-assessment skills in students constitutes a complex and long-lasting process involving both characteristics related to their psycho-intellectual and psycho-emotional development, as well as to the design and implementation of the educational process. If in the first case we can discuss the role played by the chronological age, the stage of intellectual development, the student's perceived self-efficacy or motivation for learning, in the second instance we should focus on an instructive-educational process supported by an active, conscious, and responsible participation of the learner in his own development.

The results of the present research indicate that the majority of the students included in the sample either tend to evaluate themselves objectively or underestimate themselves in the exams for the courses of study included in the curriculum of the Training Program in Psycho-pedagogy and Methodology. On the other hand, the same subjects attribute themselves a high level of personal self-efficacy, an element that matches with the academic grades received for the exam we specified. Moreover, students with a very high level of perceived self-efficacy demonstrate superior self-assessment skills, as demonstrated by an objective assessment of their own academic performance. These students seem to be aware of their own professional and personal value, have confidence in their own abilities and are willing to take on learning tasks that they can successfully complete.

In this article, the main psycho-pedagogical factors that can mediate the relationship between perceived self-efficacy and didactic self-assessment competencies in students have been analyzed. The directions of research that can be developed from here include elements such as the study of the social factors that influence the specified relationship, considering the fact that the academic results of the school group can significantly influence the normative self-evaluation of the students. Another direction of study could be how non-formal education (achieved by involving students in extracurricular activities) can influence the level of perceived self-efficacy and, implicitly, the development of didactic self-evaluation skills, given the influence of a positive psycho-affective state on these processes. A future possibility of replicating this research would be to include in the study both students from other Romanian and foreign universities, thus being able to perform a comparative analysis between the objectivity of Romanian and foreign students with reference to the evaluation of their own academic performance. The benefits of such in-depth investigations are obvious, as an objective self-assessment set against a background of high self-efficacy can contribute to optimizing students'

academic performance and to improving their integration into academic and, subsequently into socio-professional environments.

Declaration of Interest

Authors declare no competing interest.

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