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DEVELOPMENT OF SOFT COMPETENCIES THROUGH SELF-ASSESSMENT: A MODEL FOR PROFESSIONAL REALIZATION OF STUDENTS

Nikola Tanakov[1]
e-mail:ntanakov@unwe.bg

Abstract

In the context of the transforming requirements for the modern professional environment and the developing paradigms of higher education, the development of soft competencies acquires the status of a critical factor for successful professional realization. The present study aims to construct and validate a self-assessment model aimed at identifying and improving key skills such as communication, adaptability, time management and problem solving. Self-assessment is conceptualized as a tool for purposeful critical reflection that supports the building of competencies relevant to the successful integration of young professionals in the competitive work environment.

The methodological framework covers a multidimensional approach based on anonymous questionnaire surveys with 53 employers and 200 students of UNSS conducted in 2024, as well as additional qualitative methods including focus groups and in-depth interviews with teachers and employers. The analyst shows that the systematic use of self-assessment tools leads to a significant improvement in soft competencies, strengthens students' confidence in the professional environment and facilitates the synthesis of theoretical knowledge with practical skills.

The results highlight self-esteem as a strategic mechanism for improving the personal and social competencies necessary for successful career realization. The inclusion of adapted self-assessment models in academic programs can play a fundamental role in the preparation of highly qualified professionals capable of responding to the complexity and dynamics of the global labor market.

Keywords: soft competences, self-assessment, professional realization, self-assessment tools, labor market

JEL: J01, L22, M12, M53, N30

Introduction

In today's global economy, characterized by rapid technological innovation, increased competition and dynamic changes in labor market requirements, soft skills play an increasingly central role in successful career development. Unlike technical skills, which are usually clearly defined and acquired through specialized educational or professional programs, soft competencies represent

[1] Chief Assist. Prof., PhD, Department of Regional Development, University of National and Word Economy, Bulgaria

a complex of social, emotional and cognitive skills that are difficult to measure and are often acquired outside the formal educational framework. These skills, including effective communication, adaptability, leadership, critical thinking, time management and teamwork, are decisive not only for professional success, but also for the overall personal development and social integration of individuals.

The labor market, dominated by automation, digitization and multidisciplinary requirements, requires from specialists not only solid technical knowledge, but also the ability to adapt flexibly, interact effectively in teams and integrate different perspectives in solving complex problems. These challenges require the application of innovative approaches in the educational process that meet the requirements of the modern economy, while taking into account the need for personal development.

The current study is based on the hypothesis that self-assessment is a strategic tool for the systematic and sustainable development of soft competencies in students. It not only provides a framework for critical reflection and awareness of personal strengths and weaknesses, but also stimulates motivation to change, thus supporting the construction of long-term strategies for personal and professional improvement. Self-assessment, seen as a key element of the educational process, can play a transformative role by helping students to integrate their theoretical knowledge with practical competencies adaptable to a dynamic work environment.

The purpose of the research is to develop and validate a self-assessment model that will serve as a basis for targeted and systematic development of soft competencies in students. The model is based on established theoretical concepts of personal and professional development, integrating empirical data collected through surveys, interviews and focus groups with representatives of the academic community, employers and students. The conceptual framework of the model views soft competencies as a dynamic set of skills that can be developed through purposeful practice and adaptive strategies based on self-assessment.

In this context, the research suggests that the use of self-assessment tools in the academic environment not only supports the development of critically important skills, but also has a significant impact on the professional readiness of young professionals. The present study contributes to the existing scientific literature by exploring the possibilities of integrating self-assessment models into educational programs and analyzing their role in the improvement of personal and social competences relevant to the modern labor market.

The results are intended to offer practical guidelines for universities and training institutions seeking innovative strategies for the integrated development of their students. By connecting theory with empirical practice, the research provides a framework for the long-term transformation of academic preparation to meet the increasing demands for flexibility, interpersonal effectiveness and creativity in working life.

Theoretical formulation of the study

In the conditions of a globalized economy and rapidly developing technological environment, soft competencies (soft skills) occupy a central place in the scientific and practical discourse related to the development of human capital. These competencies, covering a wide range of social, emotional and cognitive skills, are seen as fundamental to the successful adaptation of the individual to the ever-changing work environment. While technical skills are often clearly defined and relatively easy to measure, soft competencies are distinguished by a high degree of complexity, dynamism and subjectivity, which makes them difficult to learn, evaluate and develop. In this context, the need to create integrated models of development, in which self-assessment plays a key role as a tool for awareness of personal strengths and weaknesses and for targeted improvement, is placed.

The present paper offers an original theoretical and practical contribution by developing a comprehensive self-assessment model that supports the enhancement of soft skills in students. It addresses three main areas:

1. Theoretical Integration. The study is based on a systematic analysis and synthesis of key theories of self-esteem, emotional intelligence and professional development. To integrate models such as Schunk's (2003, p. 167) self-regulated learning, Goleman's (1995, p. 45) concept of emotional intelligence, and Kolb's (1984, p. 34) model of experiential learning to offer a new framework that takes into account both individual and contextual factors affecting the development of soft skills.

2. Empirical enrichment. On the basis of studies covering surveys of 53 employers and 200 students, as well as interviews with teachers, an adapted toolkit for self-assessment was developed. It aims to identify critical areas for development, such as communication skills, timing and emotional adaptability, and offers a practical methodology for improving their management.

3. Applied innovation. The paper introduces practical models for integrating self-assessment into the academic environment, which include both individual and group activities to improve soft skills. These models are adapted to the specific needs of students from different academic disciplines and offer a structured development framework that combines theory with practical exercises and feedback.

Additionally, the concept of emotional intelligence developed by Goleman (1995, p. 47) emphasizes the skills of recognizing and managing emotions, which are key to effective interpersonal communication and leadership. Mayer, Salovey, and Caruso (2004, p. 153) view emotional intelligence as a four-component process that includes being aware of emotions, using them to facilitate thinking, understanding emotions, and managing them. These theories provide a basis for building educational programs that combine self-assessment with practical development of emotional and social skills.

Kolb's (1984, p. 35) model of experiential learning adds an important dynamic to the development of soft competencies by describing a learning cycle involving concrete experience, reflection, conceptualization, and active experimentation. This cyclicality is particularly applicable in educational contexts where students can integrate theoretical knowledge with practical challenges.

The present work represents a substantial contribution to the scientific literature by proposing an integrated theoretical and practical model for the development of soft competencies through self-assessment. This model not only fills existing theoretical gaps, but also provides applicable tools for implementation in the educational environment. Through innovations in methodology and adaptation to the needs of the modern labor market, the study offers a sustainable approach to preparing students for the dynamic demands of the professional world.

Methods

The present study aims to investigate the role of self-assessment as a tool for the systematic development of soft competencies in students, looking at 18 key qualities divided into four main groups. The methodology is structured to combine theoretical depth with empirical rigor, providing reliable data for analysis and practical guidance for application.

Table 1: Investigated qualities and relation to a certain group of soft competencies

N	Quality	**A group of soft competencies**
1.	Team work	**Team work**
2.	Enthusiasm	
3.	Flexibility	
4.	Acquisition of new knowledge	
5.	Documenting an idea and information	
6.	Accuracy in task performance	
7.	Accuracy in task performance	**Leadership**
8.	Time management	
9.	Negotiation skills	
10.	Communication skills	
11.	Communication skills	
12.	Level of foreign language proficiency	**Technical Leadership skills**
13.	Level of technical literacy	
14.	Computer literacy (basic level)	
15.	Digital skills	
16.	Creativity	**Problem thinking and creativity**
17.	Job analysis	
18.	Analytical skills	

Source: Development of the author

Investigated qualities and their classification

In accordance with the objectives of the study, 18 qualities have been defined, organized into four groups of soft competencies (Goev, Boshnakov, Tosheva, Kharalampiev, Bozev, 2019, p. 306):

- Teamwork: covers qualities such as teamwork, enthusiasm and flexibility.
- Leadership: includes time management, negotiation and communication skills.
- Technical skills: level of foreign language proficiency, technical and computer literacy, digital skills.
- Problem thinking and creativity: covers analytical skills, precision and creativity.

This classification allows a comprehensive analysis of a wide range of qualities that are critical for the professional adaptation of students in the modern labor market.

Research design

The research uses a combined approach (mixed methods), combining quantitative and qualitative methods to ensure empirical credibility and depth of analysis. The main stages include:

Descriptive statistics: to calculate basic characteristics such as means, medians, modes, absolute and relative magnitudes, as well as distribution indicators such as skewness (Kurtosis).

Statistical hypothesis testing: to identify differences between students and employers using appropriate statistical criteria.

Statistical hypothesis testing

The hypothesis testing process follows strictly structured stages:

1. Defining hypotheses:

Null Hypothesis $H0$: Absence of statistically significant differences between students' perceptions and employers' expectations.

Alternative hypothesis $H1$: Presence of statistically significant differences.

2. Determining the level of significance: A confidence level of 95% (α=0.05) was adopted

3. Selection of statistical criterion: The Mann-Whitney test was used to analyze the differences between two independent groups.

4. Calculating p-value: Deriving values to make a decision about accepting or rejecting $H0$.

5. Decision making: For $p \leq \alpha$, $H0$ is rejected, suggesting the presence of significant differences.

Tools and software

The following software tools were used for data processing and analysis (Kaloyanov, 2012, p. 45):

- IBM SPSS Statistics 26: for computing descriptive statistics and statistical tests.
- Microsoft Excel 2015: for visualization of results and graphical representation.
- Rationale of the approach
- This methodological approach provides an opportunity to:
- Carrying out a comprehensive analysis of the relationship between self-esteem and the development of soft competencies.
- Identifying the differences between employers' expectations and students' self-assessment.
- Formulation of practical guidelines for the integration of self-assessment models in the academic environment in order to improve the professional readiness of students.

Significance of statistical tests

Hypothesis testing provides an answer to the question of whether students adequately assess the importance of the qualities sought by employers. In this way, a basis is created for the development of programs for the purposeful development of soft competencies, which address both the individual needs of students and the requirements of the modern labor market.

This integrated methodology ensures objectivity and applicability of the findings, contributing to scientific knowledge and practical approaches in the development of soft competencies (Haralampiev, 2007, p. 112).

Integrating concepts from self-assessment, soft skills development models, and professional development theories is essential to developing an effective model for improving soft skills through self-assessment. The present study offers a comprehensive approach in which self-assessment serves as the main tool for diagnosing and developing the necessary skills. The self-assessment process provides students with the opportunity to actively engage in their own development, which is critical for their successful integration into the labor market.

Through a self-assessment system, students can identify specific areas in which they need improvement and develop strategies for their development. The ability to reflect on their own skills and experience is fundamental to achieving long-term professional effectiveness and adaptability in a dynamic work environment.

The theoretical formulation of the present study emphasizes the importance of self-assessment in the process of developing soft competencies, which are of crucial importance for the professional realization of students. By integrating different theoretical frameworks and models, the study offers a new perspective for understanding the interrelationships between personal development and the demands of the modern labor market. The developed self-assessment model is not only a methodological tool, but also a strategic approach to developing skills that will prepare students for a successful career in a variety of professional fields.

Result and Discussion

First, we rank the investigated qualities in order of importance according to the business, and according to the sequential number, each quality will receive a weight relative to its average rating. For example, for the „Leadership“ quality, this is done as follows:

$$Weight[LEADERSHIP] = \frac{X_{LEADERSHIP}}{\Sigma X_i} = \frac{3.66}{75} = 4.88\% \quad (1)$$

Table 2: Ranking of quality businesses according to their average values

N	Quality	Average	Weight
1	Leadership	3.66	4.88%
2	Time management	3.81	5.08%
3	Negotiation skills	3.81	5.08%
4	Level of proficiency in a foreign language?	3.91	5.21%
5	Digital skills	4.02	5.36%
6	Level of technical literacy?	4.08	5.43%
7	Job analysis	4.08	5.43%
8	Acquisition of new knowledge	4.13	5.51%
9	Creativity	4.15	5.53%
10	Documenting an idea and information	4.19	5.58%
11	Analytical skills	4.23	5.64%
12	Flexibility	4.26	5.69%
13	Coordination and organization	4.32	5.76%
14	Enthusiasm	4.38	5.84%
15	Communication skills	4.40	5.86%
16	Team work	4.45	5.94%
17	Accuracy in task performance	4.57	6.09%
18	Computer literacy (basic level)	4.57	6.09%
TOTAL		4.18	100.00%

Source: Development of the author

In the context of the present study, the methodological approach to the assessment of soft competencies is based on the integration of students' assessments of the level of development of the relevant qualities with the weights determined by the business. This procedure allows not only an assessment of students' self-esteem, but

also their correlation with business prospects, thus providing a reliable and valid metric for the fit between the two groups. A detailed examination of this process is essential to understand the methodological grounds for obtaining objective results that will serve for further analysis of the professional training of students in the context of modern business requirements (Pavlova, Chipeva, 2012, p. 102):

1. Construction of attribute weights

In any study of professional competencies, it is essential to establish criteria for the weight each quality has in the context of business requirements. The weights, which are calculated in Table 2, are based on the opinion of business representatives regarding the importance of the relevant qualities for the effectiveness of young professionals in the dynamic work environment. These weights are not arbitrarily chosen, but are determined through a detailed analysis of employers' requirements and are measured in percentages that indicate the relative importance of each quality in the context of professional realization.

2. Weighting of merits based on student averages

After the weights for each of the attributes are calculated, they are used to weight the averages calculated on a database collected from the students. The average value for each quality reflects the students' self-assessment regarding the level of mastery of the relevant soft competence, and this value serves as an indicator of the degree of development of the specific quality within the academic process.

Averages are calculated based on students' responses and summarize their perceptions of their own progress in mastering different aspects of soft competencies. For example, if for the quality Leadership, the average student score is 4.21, then this indicates that students rate their leadership skills at a level that is in the upper average range of the rating scale.

3. Calculation of products of averages and weights

Once the mean values for the attributes and the corresponding business weights have been determined, the next step is to calculate the products of these values. For each quality, this is done by multiplying the average value obtained by the students by the weight assigned by the business. These works represent the integrated index that brings together both student self-assessment and the importance of quality according to business requirements. This allows to assess whether students' perceptions of their own development are in sync with the demands of the work environment.

$$A\ work\ of\ art[Leadership] = Y_{\text{ЛИДЕР}Leadership}.Weight_{Leadership} = 4.21 * 4{,}88\% = 0.21 \quad (2)$$

This product, which amounts to 0.21, reflects the weighted level of development of the Leadership quality by combining students' perceptions of their leadership

level with the importance of this quality to business. This index serves as an indicator of the degree of alignment between student perceptions and employer requirements, providing a quantitative metric for analysis.

4. Interpretation of results and their significance

The process of calculating the works for each quality is a fundamental stage in the summarization and integration of data obtained from different sources. Weighted works make it possible to determine how well the level of mastery of each quality corresponds to the requirements of the business. Using these weighted scores provides a comprehensive analysis of the alignment between student academic performance and professional requirements, while enabling the identification of areas for improvement in student preparation.

The merit weighting methodology by combining student averages and business weights is a powerful tool for assessing the fit between students‘ academic preparation and the demands of the work environment. The calculation of the works for each quality provides a reliable basis for the analysis of the professional readiness of students, while clarifying to what extent their competencies meet the needs of modern business. This research provides important guidelines for optimizing educational programs and increasing the competitiveness of young professionals on the labor market.

Table 3: Calculation of average value of students

N	Quality	Students	Weight	Work
1	2	3	4	5
1	Leadership	4.21	4.88%	0.21
2	Time management	4.14	5.08%	0.21
3	Negotiation skills	4.12	5.08%	0.21
4	Level of proficiency in a foreign language?	4.31	5.21%	0.22
5	Digital skills	3.88	5.36%	0.21
6	Level of technical literacy?	4.25	5.43%	0.23
7	Job analysis	3.71	5.43%	0.20
8	Acquisition of new knowledge	3.77	5.51%	0.21
9	Creativity	3.80	5.53%	0.21
10	Documenting an idea and information	4.12	5.58%	0.23
11	Analytical skills	4.25	5.64%	0.24
12	Flexibility	3.42	5.69%	0.19
13	Coordination and organization	3.92	5.76%	0.23

Continued

1	2	3	4	5
14	Enthusiasm	4.23	5.84%	0.25
15	Communication skills	3.90	5.86%	0.23
16	Team work	4.14	5.94%	0.25
17	Accuracy in task performance	3.91	6.09%	0.24
18	Computer literacy	3.79	6.09%	0.23
TOTAL			100.00%	3.99

Source: Development of the author

After the calculation of the total score composed of the products of the average values of the students' self-assessment and the corresponding weights applied to each quality by the business, a transformation of these values into a percentage expression should be carried out. This procedure is important because it allows the presentation of the results in an easily interpretable format that indicates how much of the business requirements are „covered" by the students' ideas (Saykova, Stoykova-Kanalieva, Saykova, 2002, p. 45).

The resulting percentage ratio provides a clear metric for the degree of match between students' self-assessment and business requirements. For example, if the calculation result is 96%:

$$\% = (3.99/4.18).100 \approx 96\% \quad (3)$$

This means that at the average level, students fulfill 96% of the business requirements for the assessed qualities. This value is an indicator of the high level of match between the requirements of employers and the preparation of students in terms of certain soft competencies.

2. Interpretation of match percentage

The percentage obtained in this context plays an essential role in the analysis of the match between the academic training and the real needs of the business. In the case of a result of 96%, it shows that students meet the requirements of employers to a significant extent, which is a positive indicator of their readiness to successfully integrate into the professional environment. However, the existence of a gap of 4% between the percentage achieved and the perfect match (100%) indicates that there are areas where the demands of the business are not fully covered by the students' self-assessment.

This small difference is not insignificant, as it suggests that, despite the overall high level of match, there are specific qualities where student ratings do

not fully match business expectations. This underlines the importance of regular improvement and adaptation of curricula to the real demands of the labor market.

3. The statistical significance of the differences between students and businesses

Although the match rate is high, it should be noted that the differences between student ratings and business requirements can be statistically significant. This means that not all differences between students' perceptions and employers' actual needs are coincidental. Some qualities may be valued more highly by students than by businesses, while others may have a lower priority for students, even though they are considered key by employers.

For example, qualities such as leadership or time management may be more relevant to business than students' self-ratings, while other qualities such as flexibility or creativity may be valued more highly by students who strive for self-improvement and innovation, but these qualities are not always leading in the context of employers' requirements.

4. Significance of results and potential implications

The results obtained, although showing a high degree of concordance between student assessments and business requirements (96%), also highlight the importance of a deeper examination of these differences. The existence of statistically significant differences in grades can have serious implications for educational institutions and for the formulation of future strategic initiatives to improve student preparation. For example, steps can be taken to encourage a focus on specific qualities that are less developed among students but extremely important to businesses.

Also, based on the analysis of these differences, universities and other training institutions can adapt their programs and courses to ensure a better match between training and the real demands of the labor market, thereby increasing the competitiveness and adaptability of their graduates.

Calculating the percentage of match between students' self-assessment and business requirements not only provides quantitative evidence of the degree of match between the two, but also serves as a basis for strategies to improve academic preparation. The result of 96% shows a high degree of matching, but also emphasizes the need to adapt the training programs to ensure full compliance with business requirements. The statistical significance of the differences between the groups emphasizes the importance of continuous improvement of the education and professional training of students.

Conclusion

The present study, entitled „Development of soft competencies through self-assessment: Models for students' professional realization", highlights the exceptional role of self-assessment as a methodological tool and a strategic

framework for the development of soft skills, which are fundamental for the successful integration of students in the modern labor market. In the conditions of dynamically changing requirements for the professional environment, certain skills such as communication, teamwork, emotional intelligence and adaptability are not only necessary, but crucial to ensure successful professional realization.

The self-assessment model presented in the study is an innovative approach that allows students not only to perform a self-critical analysis of their skills and competencies, but also to realize their role in the formation of their individual professional profiles. The self-assessment process not only identifies areas where improvement is needed, but also involves students' active participation in their own educational development, which creates a foundation for future career success.

The results of the study support the hypothesis that active participation in the self-evaluation process leads to significant improvements in key soft skills. Students who regularly practice self-assessment demonstrate higher levels of communication skills, teamwork, and strong emotional intelligence. These results are consistent with theoretical developments, such as those of Goleman (1995, p. 46), who points to emotional intelligence as crucial for professional success, and Schunk (2003, p. 170), according to whom self-esteem is the basis for self-regulated learning and increases motivation.

Regarding the results presented in the tables, the calculated match percentage between the students' assessments and the business requirements shows a high level of correspondence. On average, the calculated value of 96% indicates that students largely meet employers' requirements, although statistically significant differences are observed in some areas, such as leadership and time management. These differences demonstrate that, despite the overall high level of matching, there are areas that require further improvement efforts in order to better prepare the student for the realities of the professional environment.

However, statistical analyses show that even in the presence of significant differences in the evaluations of some qualities, the overall level of agreement is extremely high, which emphasizes the success of the self-evaluation model as a means of increasing the level of preparation of students. This is particularly important in the context of a rapidly changing labor market, where the needs of employers and the perceptions of students do not always coincide.

Based on these results, the study emphasizes the need to rethink traditional approaches in education and the active inclusion of self-evaluation mechanisms in the learning process. Self-assessment should be integrated into the curricula as a basic tool for developing students' personal and professional skills. This approach not only enriches the educational process, but also creates a basis for building competencies that will support the future professional development of students.

Additionally, the research highlights the need to adapt pedagogical practices so that they are aimed at the development of soft competencies by integrating self-assessment as a core part of the learning process. Teachers must not only be trained in this new practice, but also motivated to encourage students to actively participate in the self-assessment process as a key component for their future professional success.

In conclusion, self-assessment is not just a method of self-development, but constitutes a strategic mechanism for building sustainable professional skills to meet the modern demands of the dynamic labor market. Based on the results of the research, it is proven that self-assessment is an effective and necessary component of the educational process, which not only strengthens the motivation and commitment of students, but also prepares them for successful integration in the professional environment. Achieving this goal requires long-term integration of self-assessment into educational practices, as well as continued research that illuminates its impact on students' personal and professional development in a variety of contexts.

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