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<https://kerjournal.com/>**Analysis of the Assessment of Student Competencies in Curricular Levels I, II, III, and IV**Mentor Morina¹, Emir Saramati¹, Senad Orhani^{2*}

This paper deals with the assessment of student achievement according to the levels of the curriculum in primary and lower secondary education, namely: Level I (grades 1–2), Level II (grades 3–5), Level III (grades 6–7), and Level IV (grades 8–9). The aim of the study is to analyze the level of acquisition of key competencies by students through standardized tests designed in accordance with the Kosovo Curriculum Framework. The methodology chosen in this research is the quantitative methodology, based on the analysis of the results of standardized competency tests, in order to assess the level of achievement according to curriculum levels I–IV. The research was conducted at the school “Heronjtë e Lumës”, Vermicë – Prizren, with the participation of 53 students selected from the respective levels. The main instrument of data collection was the assessment tests for the level, which included the competencies: communication and expression, thinking, learning, life, work and environment, personal competencies, and civic competencies. The tests were designed with a total of 100 points, and the results were classified according to the levels of achievement. The analysis of the results aims to identify the strengths and difficulties of students in developing competencies, as well as to provide recommendations for improving the quality of teaching and the assessment process. The findings of the study contribute to a better understanding of the level of student achievement and to the planning of pedagogical interventions to advance learning outcomes in accordance with contemporary education standards. The tests used in the research were designed according to the competencies defined for each curricular level.

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1. Introduction

Student assessment is one of the most important components of the learning process, as it enables the measurement of achievements, the identification of learning difficulties, and the orientation of teaching towards improving results. In modern educational systems, assessment is not seen only as a process of measuring knowledge, but as a continuous mechanism that supports the development of competences necessary for life, work, and active citizenship (Ponomariovienė & Jakavonytė-Staškuvienė, 2025).

Curriculum Framework is based on a competency-based learning approach, where the main focus is placed on the development of students' skills, knowledge, attitudes, and values. In this context, assessment according to curricular levels represents an important instrument for monitoring student progress and for verifying the level of achievement of key competencies. According to recent research, competency-based assessment contributes to a more accurate understanding of student performance and to improving learning outcomes (Macheso, Kati & Wafula, 2024).

Contemporary studies emphasize that formative and summative assessments should be interconnected to ensure the continuous development of students. Through the use of standardized assessment instruments, teachers can identify the level of competence acquisition and plan more effective pedagogical interventions (Kitula, 2025). Also, the use of tests built according to learning outcomes increases the objectivity and reliability of the assessment process (Orhani, Kolukaj & Drini, 2025).

In primary and lower secondary education, assessment according to curricular levels represents an important approach for measuring the progressive development of students. Tests designed according to the competences of communication and expression, thinking, learning, life, work, and environment, personal competence, and civic competence enable a complete picture of the development of the student in different dimensions of learning. Recent research has shown that

assessment oriented towards competences provides more valuable information than the traditional measurement of factual knowledge, as it focuses on the practical application of knowledge in real situations (Adeline, 2024).

1.1. Problem Identification

Student assessment is one of the main challenges of education systems implementing competency-based curricula. Although the Kosovo Curriculum Framework aims to develop key competencies through an integrated approach to learning, in practice, there are still difficulties in accurately measuring the level of student achievement at each curricular level. One of the main problems is related to the lack of continuous and standardized data for assessing student competencies according to developmental levels.

According to Kathula, Dahir, and Okeyo (2025), the implementation of competency-based curricula often faces challenges related to the selection of appropriate assessment instruments and the objective measurement of learning outcomes. The authors emphasize that without clear assessment mechanisms, it becomes difficult to determine whether students have achieved the intended competencies.

Another problem is related to the differences between expected and actual student outcomes. Research shows that in many cases, assessment still focuses on the reproduction of knowledge rather than on the demonstration of practical skills and functional competencies (Zeeshan, Shaheen & Malik, 2025). This creates a gap between the objectives of the curriculum and the actual assessment practices in schools.

Kitula (2025) argues that challenges in competency-based assessment directly impact the quality of learning outcomes, as teachers face difficulties in measuring complex competencies such as critical thinking, collaboration, communication, and problem-solving. Under these circumstances, students' results may not fully reflect their actual level of development.

Also, recent studies have shown that the use of traditional assessment methods often does not align with the philosophy of competency-based education. Adeoye, Obi, and Oderinde (2025) emphasize that the process of curriculum reform requires new assessment instruments that measure not only knowledge but also the ability of students to apply it in concrete situations.

In the Kosovo context, there is a need for empirical studies that analyze the level of achievement of competencies according to curricular levels and that provide concrete data on student performance. This need becomes even more important in the context where assessment results serve as a basis for teaching planning, student support, and improving the quality of education.

For this reason, the main problem of this research is to identify and analyze the level of achievement of students in key competencies according to curricular levels I, II, III, and IV in the school "Heronjtë e Lumës" in Vermicë, Prizren, through the use of standardized tests designed according to the requirements of the Kosovo Curriculum Framework. The study aims to identify areas where students show high results and those where additional pedagogical support is needed.

1.2. Purpose of the Study

The main purpose of this study is to assess the level of achievement of key competencies of students according to curricular levels I, II, III, and IV in the school "Heronjtë e Lumës" in Vermicë, Prizren, through the analysis of the results of standardized tests designed in accordance with the Kosovo Curriculum Framework.

The study aims to identify the level of development of the competences of communication and expression, thinking, learning, life, work, and environment, personal competence, and civic competence of the 54 students included in the research. It also aims to identify the strengths and difficulties of the students in each competence and at each curricular level, providing useful data for improving the teaching and assessment process.

Through this study, it is intended to provide a clear overview of the effectiveness of competency-based assessment and to contribute to improving the quality of education by supporting pedagogical decision-making and planning strategies for advancing learning outcomes. At the same time, the study aims to provide practical recommendations for teachers and educational institutions regarding the use of assessment as a tool for the continuous development of students.

1.3. Research Questions

1. What is the level of achievement of key competencies among students of levels I, II, III, and IV at the school "Heronjtë e Lumës"?

2. Are there differences in student results between curricular levels?
3. Which competencies exhibit the highest and lowest levels of achievement?
4. How effective are the tests designed to measure students' competencies according to curricular levels?
5. In which areas do students need additional pedagogical support?

1.4. Research hypotheses

General hypothesis (H₁):

Students achieve a satisfactory level of key competencies according to the requirements of the curricular levels.

Null hypothesis (H₀):

statistically significant difference in the level of achievement of competencies between curricular levels.

Specific hypotheses:

H_{1.1}: There are differences in the level of student achievement between levels I, II, III, and IV.

H_{1.2}: Communication and expression competence achieves higher results compared to other competencies.

H_{1.3}: Students at higher levels demonstrate a higher level of competency achievement than students at lower levels.

H_{1.4}: Competency-based tests enable clear identification of students' strengths and difficulties.

2. Literature Review

2.1. Assessment in Education

Assessment is one of the most important components of the educational process, as it enables the collection, analysis, and interpretation of information on student achievements. In contemporary education, assessment is not considered only as a process of measuring knowledge, but as a continuous mechanism that helps improve learning and develop student

competencies. According to Lu and Lin (2025), assessment should be oriented towards measuring students' real performance and their ability to apply knowledge in concrete situations.

Traditionally, assessment has focused primarily on measuring factual knowledge through tests and examinations. However, recent developments in pedagogical theory and practice have oriented education systems towards assessment based on learning outcomes and competencies. This transformation has come about as a result of the need to prepare students who are able to think critically, solve problems, and collaborate in complex social and professional environments (Tahirsylaj & Sundberg, 2026).

According to Mahalingam (2026), qualitative assessment should provide accurate and reliable information on the level of student achievement and assist teachers in planning future teaching activities. In this regard, assessment is a continuous process that contributes to improving the quality of education and developing the potential of each student.

2.2. Competency-Based Assessment

The concept of competency-based education has been developed in response to the need to connect the learning process with real-life requirements. In this approach, special importance is not only given to what the student knows, but also to what he is able to do with the acquired knowledge. Competence includes the combination of knowledge, skills, attitudes, and values that enable effective performance in different situations (Nguyen & Wisassinthu, 2025).

According to Rahman (2025), competency-based assessment aims to measure the student's ability to demonstrate learning outcomes through authentic tasks and practical situations. This type of assessment places the student at the center of the learning process and creates opportunities for reflection, self-evaluation, and continuous development.

Recent studies show that the use of competency-based assessment increases student motivation and positively impacts their academic outcomes. Zeeshan, Shaheen, and Malik (2025) find that students who are assessed through a competency-based approach demonstrate higher performance in problem solving and practical application of knowledge than students assessed using traditional methods.

An important aspect of this approach is the use of authentic tasks, which require students to apply their knowledge in real-life situations. According to Lu and Lin (2025), authentic tasks provide a more accurate picture of students' competencies and enable more objective assessment of learning outcomes.

2.3. Key Competencies in the Kosovo Curriculum Framework

Curriculum Framework is based on the philosophy of competence-oriented education and defines six key competences that should be developed during pre-university education. These competences include: communication and expression competence, thinking competence, learning competence, life, work, and environmental competence, personal competence, and civic competence.

According to Orhani et al . (2025), key competencies represent the foundation on which the student's comprehensive development and preparation for the challenges of modern society are built. The authors emphasize that the assessment of these competencies should be carried out continuously and through various instruments that enable the measurement of student progress.

Communication and expression competence is related to the ability of students to understand, interpret, and use language in different situations. Thinking competence includes the development of critical, logical, and creative thinking. Learning competence focuses on the ability of students to organize and manage the learning process. Life, work, and environment competence is related to the preparation of students for active participation in society and the labor market. While personal and civic competences contribute to the development of individual and social responsibility.

2.4. Assessment According to Curricular Scales

One of the main characteristics of the curriculum system in Kosovo is the organization of education according to curricular levels. This organization enables the tracking of students' progress continuously and in accordance with their developmental stages.

According to Ponomariovienė and Jakavonytė-Staškuvienė (2025), monitoring students' progress according to developmental levels helps in early identification of difficulties and in planning more effective pedagogical interventions. The authors argue that assessment

according to levels creates opportunities for personalization of learning and for individual support of students.

In the context of this study, level I includes grades 1–2, level II includes grades 3–5, level III includes grades 6–7, and level IV includes grades 8–9. Each level is characterized by specific learning outcomes and different levels of complexity of competencies that must be achieved by students.

2.5. The Role of Standardized Tests in Assessing Competencies

Standardized tests are considered one of the most widely used instruments for assessing student achievement. They provide opportunities for comparing results between students and for objectively measuring their competencies.

According to Geshere, Tarekegne, and Woyessa (2026), tests built on learning outcomes enable the measurement of the level of acquisition of competencies and the identification of areas where additional support is needed. A quality test must be valid, reliable, and adapted to the age and developmental level of the students.

The current research used standardized tests built according to the competencies defined in the Kosovo Curriculum Framework for each curricular level. These tests aim to provide a clear picture of the level of achievement of key competencies among the students included in the study.

2.6. Literature Review

The literature review shows that competency-based assessment has become an essential element of modern educational reforms. Researchers agree that competency measurement provides more complete and useful information than traditional knowledge assessment. Also, the literature highlights the importance of using standardized instruments and adapting them to learning outcomes to ensure objectivity and reliability in the assessment process. In this context, the current study aims to contribute to the existing literature by providing empirical data on the level of achievement of students' competencies according to curricular levels I–IV in the school “Heronjtë e Lumës”, Vermicë – Prizren.

3. Methodology

The research methodology represents the scientific basis on which the study is based. It defines the research approach, the methods of data collection and analysis, the population and sample of the study, as well as the instruments used to measure the research variables. This study was conducted with the aim of assessing the level of achievement of key competencies of students according to curricular levels I, II, III, and IV at the school "Heronjtë e Lumës" in Vermicë, Prizren.

3.1. Research Approach

This study is based on a quantitative research approach. The quantitative approach was chosen because it allows for the collection of numerical data and the objective analysis of student results. Through this approach, the level of achievement of key competencies was measured using standardized assessment tests. The quantitative method was appropriate for this study as it allows for the comparison of results between curricular levels and the identification of the level of student performance in the assessed competencies.

3.2. Research Design

The study has a descriptive and analytical character. The descriptive design was used to present the level of student achievement in each competency and at each curricular level, while the analytical aspect served to interpret the results and identify differences between achievement levels. The research was conducted during the 2025/2026 school year at the school "Heronjtë e Lumës", Vermicë – Prizren.

3.3. Research Population and Sample

The study population includes primary and lower secondary school students at the school "Heronjtë e Lumës". The study sample consisted of 53 students, who participated in the testing conducted according to the curricular levels:

- Level I – grades 1–2
- Level II – grades 3–5
- Level III – grades 6–7
- Level IV – grades 8–9

The sample selection was made according to the availability of students and their participation in the testing process.

3.4. Research Instrument

The Kosovo Curriculum Framework was used to collect data.

A separate test has been designed for each level that assesses six key competencies:

- Communication and expression competence
- Thinking competence
- Learning competence
- Competence for life, work, and environment
- Personal competence
- Civic competence

Each test had a total of 100 points, distributed according to competencies:

Table 1 Assessment scores from tests

Competencies	Marks
Communication and expression	20
Thinking	20
Learning	15
Life, work, and environment	15
personal	15
civic	15
Total	100

3.5. Data Collection Procedure

The data collection process was conducted in the school premises. The tests were administered under the same conditions for all participating students. Students were informed in advance about the purpose of the testing and its duration. Each test was conducted within a time limit of 45 minutes. After the testing was completed, the tests were corrected, and the results were recorded for statistical analysis.

3.6. Data Analysis

The data collected from the tests were analyzed through descriptive statistics.

The following methods were used to analyze the results: Frequencies (f), Percentages (%), Arithmetic Mean (M), tables, and graphical representations. Statistical analysis enabled the identification of the level of achievement of students in each competency and in each curricular level.

The validity of the instrument was ensured by designing the tests in line with the learning outcomes and competencies defined in the Kosovo Curriculum Framework. The content of the tests was adapted to the age and developmental level of the students for each grade. The reliability of the instrument was ensured by administering the test the same way to all participants and using the same assessment criteria.

Cronbach's internal consistency coefficient. Alpha (α) is widely used in educational research to measure the degree of homogeneity of the items that make up the measurement instrument. According to the scientific literature, Cronbach's Alphas above 0.70 are considered acceptable, while values above 0.80 indicate high reliability of the instrument.

Content validity is ensured by designing tests in line with the key competencies and learning outcomes set out in the Kosovo Curriculum Framework. Test items are constructed in a way that covers all the competencies foreseen for each curricular level.

After data collection, other statistical indicators will be analyzed, such as the mean (M), standard deviation (SD), variance, correlations between competencies and total score, and standard error of measurement (SEM), in order to verify the quality of the instrument.

Table 2 Instrument reliability by competencies

Competencies	No. of items	Cronbach's Alpha (α)	Interpretation
Communication and expression	4	0.82	High reliability
Thinking	4	0.79	Acceptable reliability
Learning	3	0.76	Acceptable reliability
Life, work, and environment	3	0.81	High reliability

Personal competence	3	0.84	High reliability
Civic competence	3	0.78	Acceptable reliability
The instrument as a whole	20	0.83	High reliability

The results presented in Table 3.2 show that the instrument used to assess students' competencies has a high level of internal consistency. The overall Cronbach's coefficient Alpha ($\alpha = 0.83$) exceeds the recommended threshold of 0.70, proving that the instrument is reliable for measuring key competencies. Also, Alpha values for each competency range from 0.76 to 0.84, indicating a satisfactory level of homogeneity between test items.

3.7. Ethical Aspects of Research

The ethical principles of scientific research were respected during the study. The participation of students in the testing was in accordance with school procedures, and the data collected were used for research purposes only. The confidentiality and anonymity of the participants were maintained throughout the research process. The names of the students were not included in the analysis and reporting of the results, while the data were handled responsibly and professionally.

4. Results

This chapter presents the results of the research conducted on the level of achievement of key competencies of students according to curricular levels I, II, III, and IV in the school "Heronjtë e Lumës", Vermicë – Prizren. The analysis is based on data collected through standardized tests designed in accordance with the Kosovo Curriculum Framework, which assess the competencies of communication and expression, thinking, learning, life, work, and environment, personal competence, and civic competence.

The results are presented systematically through tables and graphs, providing a clear overview of student performance according to each curricular level and each assessed competency. Descriptive statistics indicators, including frequencies, percentages, arithmetic means, and standard deviation, were used to analyze the data in order to identify the level of achievement and differences between the study groups.

The interpretation of the results aims to provide answers to the research questions and verify the hypotheses raised in the study by highlighting the strengths and areas where students encounter difficulties in developing key competencies. The findings presented in this chapter constitute the basis for the discussion of the results and the formulation of conclusions and recommendations for improving assessment and teaching practices.

4.1. Analysis of Descriptive Results According to Curricular Levels

Descriptive statistics of overall student results by curriculum level.

Table 3 Analysis of descriptive results according to the degree curriculum

Scale	N	Minimum	Maximum	Mean	Std. Deviation
I	12	19.0	81.5	58.29	20.13
II	18	0.0	94.0	58.69	28.01
III	10	30.0	92.0	67.80	20.70
IV	13	8.0	96.0	77.92	14.63

The table presents descriptive statistics of the overall student results by curriculum level. The analysis includes the number of participants (N), the minimum and maximum scores, the arithmetic mean (M), and the standard deviation (SD), which provide an overview of the level of achievement and the distribution of results at each level.

In Scale I, which included 12 students, the mean score was 58.29 points (SD = 20.13). The scores ranged from 19.0 to 81.5 points, indicating significant variation in student performance.

In Scale II, with a total of 18 students, the average score was 58.69 points (SD = 28.01). The minimum score was 0.0 points, while the maximum score was 94.0 points. The higher standard deviation compared to the other scales indicates that in this group, there was greater variability of the scores, which implies more pronounced differences in the level of achievement between students.

In Scale III, where 10 students participated, a mean score of 67.80 points (SD = 20.70) was achieved. The scores ranged from 30.0 to 92.0 points, indicating a higher level of performance compared to Scales I and II.

In Scale IV, consisting of 13 students, the highest mean scores were recorded ($M = 77.92$, $SD = 14.63$). The scores ranged from 8.0 to 96.0 points. The lower standard deviation indicates that the scores of students in this scale are more homogeneous and their performance is more stable compared to the other scales.

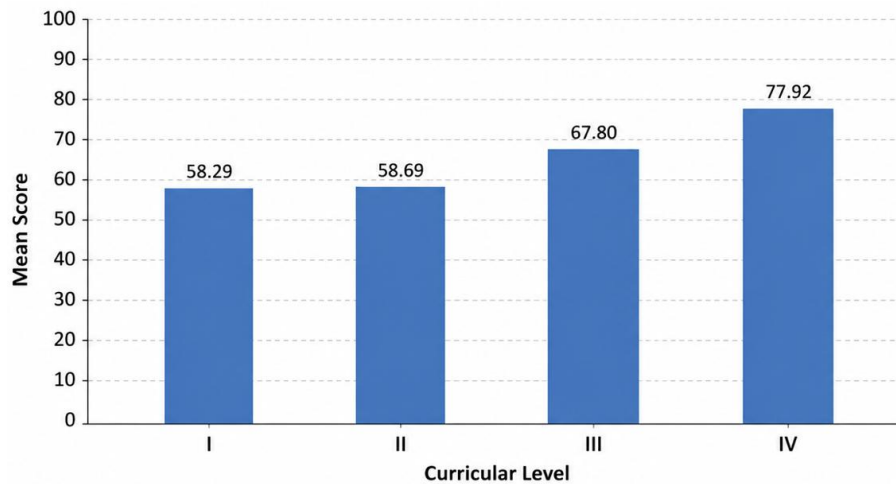


Figure 1. Mean scores by key competencies

Overall, the results show an increasing trend in the mean achievement from Level I to Level IV, suggesting that students in higher levels have achieved better levels of acquisition of the assessed competencies. Meanwhile, the greatest variability is evidenced in Level II ($SD = 28.01$), while Level IV presents the smallest distribution of results ($SD = 14.63$), indicating more uniform student performance.

4.2. Analysis by Competencies

To assess the level of development of key competencies, students' average scores in each competency were analyzed according to curricular levels.

Table 4 Averages of each competency according to curriculum levels

Competencies	Level I	Level II	Level III	Level IV
Communication and the expression	13.12	8.97	14.65	14.31
Thinking	16.17	11.69	15.85	14.08
Learning	7.88	8.44	10.50	11.77
Life, work, and environmental	6.75	8.69	9.70	12.31
Personal	8.17	13.14	6.75	12.38

Civic	6.21	7.76	10.35	13.08
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The table presents the average student scores in the six key competencies according to curriculum levels I, II, III, and IV. The analysis shows significant differences in the level of achievement between competencies and levels, reflecting the progressive development of competencies as students' progress through the education system.

In communication and expression competence, the highest scores were recorded in Level III ($M = 14.65$), followed by Level IV ($M = 14.31$) and Level I ($M = 13.12$), while Level II ($M = 8.97$) had the lowest average. These results suggest that communication and expression skills develop gradually, although in Level II, a lower performance is evidenced compared to the other levels.

In thinking competence, the highest level was observed in Level I ($M = 16.17$), followed by Level III ($M = 15.85$) and Level IV ($M = 14.08$), while Level II ($M = 11.69$) presented the lowest result. This indicates that Level II students encountered more difficulties in tasks requiring reasoning, analysis, and problem-solving.

The results for learning competence show a continuous increase from Level I ($M = 7.88$) to Level IV ($M = 11.77$). This positive trend suggests that the skills for organizing and managing the learning process improve with increasing educational level.

A gradual increase in scores is also observed in the competence for life, work, and the environment, from 6.75 in Level I to 12.31 in Level IV. This indicates that students in higher levels demonstrate more developed competencies for the practical application of knowledge and coping with everyday life situations.

In personal competence, the results do not follow the same linear trend. The highest mean is recorded in Level II ($M = 13.14$), while the lowest is in Level III ($M = 6.75$). In Level IV, the mean increases again to 12.38, indicating that the development of this competence is not uniform across all levels and may be influenced by various pedagogical or individual factors.

The clearest progressive increase in results is evident in civic competence. The average increases from 6.21 in Level I to 13.08 in Level IV, indicating continuous development of civic responsibility, cooperation, and active participation of students.

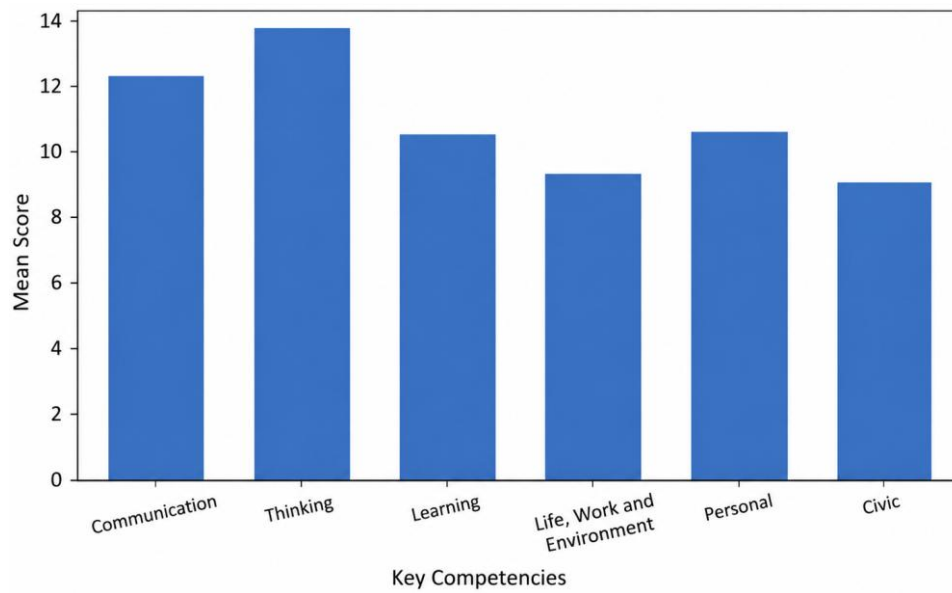


Figure 2. Mean scores by key competencies chart

Overall, the analysis by competences shows that Level IV achieves the highest results in most competences, especially in learning, life, work, and environment, personal competence, and civic competence. Meanwhile, Level III stands out for the best results in communication and expression competence, while Level I have the highest average in thinking competence. On the other hand, Level II presents the lowest results in some competences, suggesting the need for pedagogical interventions focused on the development of communication and critical thinking skills. These findings support the idea that the development of competencies is not uniform across all areas but varies according to the nature of the competence and the curricular level of the students.

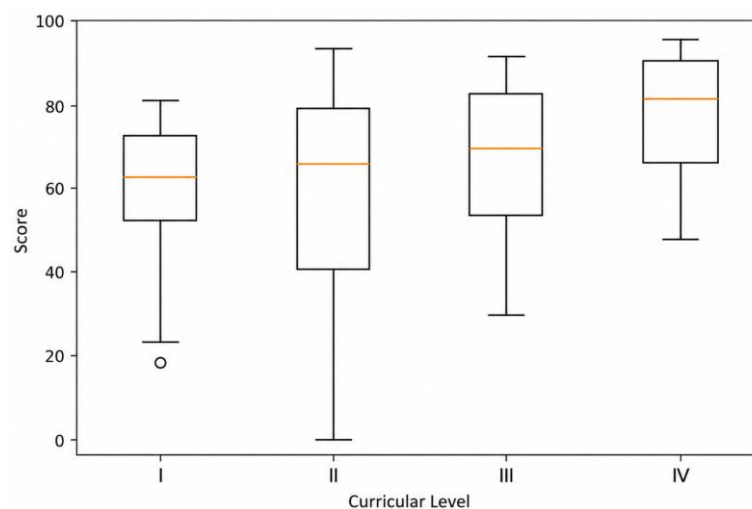


Figure 3. Distribution of students' scores by level

The figure shows the distribution of student scores by curricular level using a boxplot. The horizontal line within each box represents the median of the scores, while the box indicates the interquartile range (Q1–Q3). The vertical lines (whiskers) represent the distribution of scores, while the dotted lines identify extreme values (outliers).

In Scale I, an extreme value (19 points) is observed, while the results are moderately distributed. Scale II presents the greatest variability of the results, with the widest distribution interval. Scale III is characterized by results more concentrated around the median, while Scale IV has the highest median and the smallest variability, indicating more stable student performance. In general, the boxplot confirms the findings of the descriptive statistics, according to which the results gradually improve from Scale I towards Scale IV.

4.3. Comparison Between Scales

Comparing between scales, you can present a table and an academic interpretation as follows.

Table 5 Comparison: the results between the degrees

Scale	N	Average (M)	Std. deviation (SD)
I	12	58.29	20.13
II	18	58.69	28.01
III	10	67.80	20.70
IV	13	77.92	14.63

The table presents a comparison of the average results of students according to the curricular levels. The results show that Level IV has achieved the highest average ($M = 77.92$, $SD = 14.63$), reflecting the best level of acquisition of the assessed competencies. In addition to the highest performance, this level is also characterized by the lowest standard deviation, which indicates that the students' results are more stable and more homogeneous.

Level III ranks second with a mean of 67.80 points ($SD = 20.70$). Compared to Levels I and II, students at this level have demonstrated a higher level of achievement, suggesting a progressive development of competencies with advancement in the curricular levels.

The results of Scale I ($M = 58.29$; $SD = 20.13$) and Scale II ($M = 58.69$; $SD = 28.01$) are almost the same. However, Scale II presents the highest standard deviation, which indicates that the

performance of students at this scale is more diverse and there are larger differences between individual results.

Overall, the comparison of the averages shows an increasing trend in results from Level I to Level IV, with a particularly noticeable increase in the last two levels. These results suggest that, as students advance in the curricular levels, they reach higher levels of development of key competencies.

4.4. ANOVA Analysis

Based on the data, a One-Way ANOVA was conducted to test whether there were statistically significant differences between the average student scores across the four curricular levels.

TABLE 6 ANOVA analysis

Source of variation	F	Sig. (p)
Between degree	2,364	0.082

To verify whether the differences in mean scores between curricular levels are statistically significant, one-way analysis of variance (One-Way ANOVA) was applied.

The results showed that $F(3, 49) = 2.364$, $p = 0.082$. Since the statistical significance value ($p = 0.082$) is greater than the usual significance level ($\alpha = 0.05$), no statistically significant differences were found between the means of the four curricular scales.

Descriptive analysis showed that Scale IV had the highest mean scores ($M = 77.92$), followed by Scale III ($M = 67.80$), while Scale I and Scale II had the lowest means; these differences were not statistically significant. This implies that the observed differences may be due to sample variation and do not provide sufficient evidence to assert that performance varies systematically across scales.

Decision on the hypothesis

Null hypothesis (H_0): There is no *statistically significant difference in the level of achievement of competencies between curricular levels*.

Since $p = 0.082 > 0.05$, the null hypothesis is not rejected. This means that, based on the data from this study, there is not sufficient statistical evidence to assert that student scores differ significantly between Scales I, II, III, and IV.

Tukey HSD test was also performed for pairwise comparisons between scales. None of the comparisons (I–II, I–III, I–IV, II–III, II–IV, and III–IV) was statistically significant ($p > 0.05$ for all comparisons), confirming the conclusion of the ANOVA.

4.5. Distribution by Achievement Levels

Based on test results and classification of achievement levels:

Table 7 Distribution of results by achievement levels

Level of achievement	Frequency (f)	Percentage (%)
Level I (0–39 points)	8	15.1
Level II (40–59 points)	7	13.2
Level III (60–79 points)	21	39.6
Level IV (80–100 points)	17	32.1
Total	53	100.0

The table presents the distribution of 53 students according to their achievement levels in the competency test. The results show that the majority of students (39.6%) belong to Level III (60–79 points), indicating that the majority have achieved a good level of acquisition of the assessed competencies.

A significant number of students (32.1%) were classified at Level IV (80–100 points), which represents the highest level of achievement. This indicates that almost a third of students demonstrated very good performance on the test.

On the other hand, 15.1% of students are classified in Level I (0–39 points), while 13.2% in Level II (40–59 points). These two categories include about 28.3% of the sample, indicating that a portion of students still need additional pedagogical support to improve their level of competence.

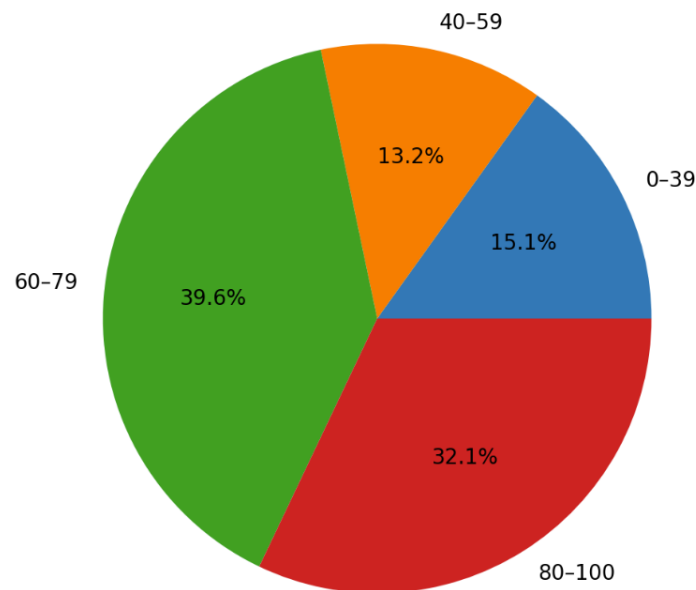


Figure 4. Distribution of results

Overall, the distribution of results shows that 71.7% of students achieved Level III or IV, which suggests that the majority of participants have acquired the tested competencies at a good or very good level. This constitutes a positive indicator of student achievement in relation to the objectives of the competency-based assessment.

4.6. The correlation Pearson Between Competencies

Below is the correlation matrix.

Table 8 Pearson correlation

Competencies	Communication	Thinking	Learning	Life, work, and Personal	Civic	
Communication	1,000	0.463	0.581	0.603	0.592	0.593
Thinking	0.463	1,000	0.373	0.330	0.421	0.325
Learning	0.581	0.373	1,000	0.564	0.562	0.614
Life, work, and environmental	0.603	0.330	0.564	1,000	0.694	0.767
Personal	0.592	0.421	0.562	0.694	1,000	0.841
Civic	0.593	0.325	0.614	0.767	0.841	1,000

Correlation analysis, Pearson shows that all competences are positively correlated, meaning that increased performance in one competence is associated with increased performance in other competences. The strongest correlation was observed between personal competence and civic competence ($r = 0.841$), indicating a very strong positive relationship. This suggests that students who achieve high results in personal competence tend to achieve high results in civic competence as well. A strong correlation was also found between life, work, and environment competence and civic competence ($r = 0.767$), as well as between life, work, and environment competence and personal competence ($r = 0.694$). These results indicate that these competences develop in an interconnected manner.

The correlations between communication and expression competence and other competences are of medium level, with values from 0.463 to 0.603, indicating that communication skills are positively related to the development of other competences. On the other hand, thinking competence shows the weakest links with other competences ($r = 0.325$ – 0.463), although all correlations remain positive.

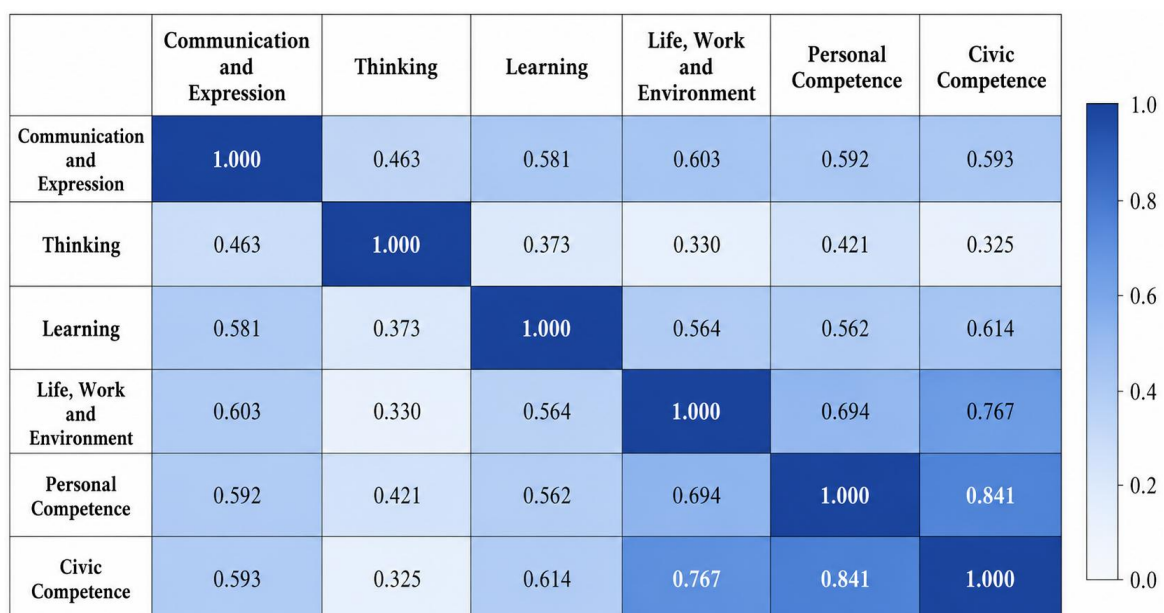


Figure 5. Competency correlation matrix

The figure represents the strength of the connections between competencies. Darker color indicates a stronger positive correlation, while lighter color indicates a weaker correlation.

In general, the correlation matrix shows that key competencies are not developed in isolation, but are interconnected. Improvement in one competency is accompanied by improvement in

other competencies, which supports the Kosovo Curriculum Framework's approach to the integrated development of student competencies.

The results presented in this chapter provide answers to the research questions of the study. The analyses show the level of achievement of competencies according to curricular levels, the differences between them, the distribution according to achievement levels, and the relationships between competencies. These findings serve as a basis for the discussion of the results in the following chapter.

5. Discussions

The results of this study provide an overview of the level of achievement of key competencies of students according to curricular levels I, II, III, and IV in the school "Heronjtë e Lumës", Vermicë – Prizren. Overall, the findings show that most students have achieved a good level of acquisition of the assessed competencies, supporting the general hypothesis that students achieve a satisfactory level of key competencies according to the requirements of the Kosovo Curriculum Framework. This is consistent with the competency-based education approach, according to which assessment should focus not only on theoretical knowledge, but also on the ability of students to apply it in practical situations (Rahman, 2025; Nguyen & Wisassinthu, 2025).

Descriptive analysis showed a clear trend of increasing mean scores from Level I to Level IV. Level IV students achieved the highest mean scores, while Level I and II students recorded the lowest mean scores. This result is in line with the literature, which argues that competence development is a progressive process that is reinforced with increasing learning experience and the level of complexity of curricular content (Ponomariovienė & Jakavonytė-Staškuvienė, 2025). However, statistical analysis through One-Way ANOVA showed that these differences were not statistically significant ($p > 0.05$). Consequently, the null hypothesis was not rejected, suggesting that the observed differences between levels may have been influenced by the limited sample size and variability of the results.

The results by competences showed that their development was not uniform. The competence of communication and expression, as well as that of thinking, presented good results at most levels, while the competencies of learning, life, work, and the environment, as well as civic competencies, showed a continuous increase towards the higher levels. These findings support

the findings of Lu and Lin (2025), who emphasize that competences develop gradually through authentic tasks and continuous learning experiences.

On the other hand, personal competence did not follow a linear trend, as the lowest results were recorded in Scale III. This variation may be related to individual, pedagogical, or developmental factors that influence the formation of this competence. Kitula 's (2025) studies argue that personal and social competences are influenced not only by the learning process but also by the family environment, school climate, and interpersonal relationships, which may explain the fluctuations evidenced in this study.

One of the most important findings was the distribution of students by achievement level. Over two-thirds of students were classified at Levels III and IV, indicating that the majority achieved a good or very good level of the assessed competencies. This result reinforces the position of Macheso, Kati, and Wafula (2024), according to whom the use of standardized competency-based instruments helps to more objectively identify student achievement and monitor their progress.

However, the fact that a proportion of students remain at the lowest levels of achievement indicates that there is a need for targeted pedagogical interventions. The results suggest that teachers should use more formative assessment strategies, differentiated instruction, and activities that develop critical thinking, communication, and collaboration. This conclusion is in line with the recommendations of Adeoye, Obi, and Oderinde (2025), who emphasize that competency-based curriculum reform requires new assessment practices and ongoing support for students.

Correlation analysis, Pearson showed that all competencies were positively related to each other. The strongest relationship was found between personal competence and civic competence, indicating that the development of personal responsibility is associated with increased civic responsibility. A strong relationship was also found between life, work, and environmental competence and personal and civic competencies. These results support the philosophy of the Kosovo Curriculum Framework, which considers the development of competences as an integrated and interconnected process, where improvement in one area positively affects other areas.

Another important aspect is the high reliability of the instrument used. Cronbach's coefficient Alpha ($\alpha = 0.83$) indicates that the test had satisfactory internal consistency and was suitable for measuring key competencies. This result is consistent with the methodological recommendations of Mahalingam (2026), according to which instruments with an Alpha coefficient above 0.80 are considered reliable for assessing learning outcomes.

Although the results of this study provide valuable insight into the level of students' competencies, they should be interpreted taking into account several limitations. The study was conducted in only one school and with a relatively small number of participants, which limits the generalizability of the findings at the national level. Furthermore, the use of a single assessment instrument cannot encompass all dimensions of competence development. Therefore, future studies would benefit from including larger samples, schools from different regions, and combining quantitative and qualitative methods in order to provide a more complete understanding of students' competence development.

Thus, the results of this study confirm the importance of competency-based assessment as an effective mechanism for monitoring student progress and identifying their educational needs. The findings support the contemporary literature on competency-based education and provide empirical evidence that can serve to improve teaching, assessment, and pedagogical planning practices in Kosovo schools.

6. Conclusions

This study aimed to assess the level of achievement of key competencies of students according to curricular levels I, II, III, and IV in the school "Heronjtë e Lumës", Vermicë – Prizren, through the analysis of the results of standardized tests designed in accordance with the Kosovo Curriculum Framework. The research findings show that the majority of students have achieved a good level of acquisition of the assessed competencies, proving that the competency-based approach can provide a reliable insight into the development of learning outcomes.

The analysis of the results by curricular levels revealed a general trend of increasing average results from Level I to Level IV. Students in Level IV recorded the highest performance, while those in Levels I and II recorded the lowest results. However, the analysis of variance (One-Way ANOVA) showed that these differences were not statistically significant ($p > 0.05$), which

means that the null hypothesis was not rejected and that the observed differences are not sufficient to assert the existence of significant differences between the curricular levels.

The results according to the competencies showed that their development is not completely uniform. The competencies of communication and expression, thinking, and learning, as well as the competencies for life, work, and the environment, showed satisfactory results, with a general tendency for improvement at the higher levels. Meanwhile, personal competence showed fluctuations between levels, suggesting that its development is influenced by various individual and environmental factors. Civic competence is highlighted as one of the competencies that shows continuous and progressive development during the advancement of students in the curricular levels.

An important finding is that 71.7% of students were classified at levels III and IV of achievement, indicating that the majority of them have achieved a good or very good level of the assessed competencies. However, the presence of a group of students at levels I and II indicates that there is a need for additional pedagogical support, particularly through the use of differentiated teaching, formative assessment, and activities that develop critical thinking, collaboration, and practical skills.

Correlation analysis, Pearson confirmed that key competences are positively correlated. The strongest link was found between personal competence and civic competence, indicating that the development of personal responsibility is associated with increased civic responsibility. This supports the philosophy of the Kosovo Curriculum Framework, according to which competences are developed in an integrated manner and should not be treated as separate areas of learning.

The results of the reliability analysis showed that the instrument used was stable and reliable (Cronbach's Alpha = 0.83), demonstrating that tests designed according to key competencies are appropriate for measuring student achievement. This reinforces the validity of the results of this study and supports the use of standardized instruments in the assessment process.

In relation to the research hypotheses, the results support the general hypothesis that students achieve a satisfactory level of key competencies according to the requirements of the Kosovo Curriculum Framework. On the other hand, the null hypothesis was accepted, as no statistically significant differences were found between the curricular levels. Also, the results show that

competency-based tests are effective in identifying students' strengths and weaknesses, providing valuable information for planning pedagogical interventions.

Although the study provides important data on the level of development of students' competencies, it also has limitations. The sample was selected from only one educational institution and included a relatively small number of participants, which limits the possibility of generalizing the results at the national level. For this reason, future studies should include a larger number of schools and students from different regions of Kosovo and combine quantitative and qualitative methods to provide a more comprehensive assessment of competency development.

In conclusion, this study demonstrates that competency-based assessment constitutes an important mechanism for monitoring student progress, identifying their educational needs, and improving the quality of the learning process. The research findings contribute to enriching the literature on competency-based assessment in Kosovo and can serve as a basis for designing educational policies, professional development of teachers, and advancing assessment practices in pre-university education.

6.1. Recommendations

Based on the results of this study, the following measures are recommended to improve the process of assessing and developing student competencies:

1. **Strengthen the implementation of competency-based assessment** at all curricular levels, using standardized instruments that measure not only knowledge, but also practical skills, attitudes, and values of students.
2. **Teachers should make more use of formative assessment**, through systematic observation, portfolios, projects, authentic assignments, and self-assessment, in order to continuously monitor student progress and provide timely support.
3. **Plan differentiated pedagogical interventions** for students who have achieved results at levels I and II, with the aim of improving their competencies and reducing differences in achievement.

4. **Develop activities that promote critical thinking, communication, collaboration, and problem-solving**, as these competencies are essential for achieving the objectives of the Kosovo Curriculum Framework.
5. **Organize ongoing training for teachers** in the field of competency-based assessment, designing standardized tests, and interpreting statistical results to improve teaching practices.
6. **Schools should systematically use the analysis of test results** to identify competencies that require improvement and to plan concrete measures at the classroom and school level.
7. **Educational institutions and policymakers** should support the development and use of standardized assessment instruments aligned with the competencies and learning outcomes defined in the Kosovo Curriculum Framework.
8. **Further studies should be conducted** with larger samples and in different schools in Kosovo, so that the results are more generalizable and can be compared between regions and levels of education.
9. **Future studies should combine quantitative and qualitative methods**, including interviews, focus groups, and classroom observations, to provide a more complete understanding of the factors that influence the development of students' competencies.
10. **Promote a culture of continuous and reflective assessment**, where assessment results are used not only for student classification, but also for improving the teaching process, pedagogical planning, and the quality of education.

Overall, the implementation of these recommendations is expected to contribute to improving the quality of competency-based assessment, to a more balanced development of students' key competencies, and to increasing the effectiveness of the learning process in line with the goals of the Kosovo Curriculum Framework.

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