

Study on School Motivation and Learning Strategies for Primary School Learners in Arts-focused Vocational Schools and Regular Schools

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Abstract: *The integration of vocational concepts within conventional educational frameworks necessitates the exposure of students to a diverse array of subjects and extracurricular pursuits from an early age. It is evident that both the immediate career decisions made by individuals and the long-term quality of the workforce may be impacted by inadequate involvement in career advice initiatives. In order to facilitate thoughtful career decisions in the twenty-first century, it is imperative to emphasize assessment, professional information search, and exploration. This exploratory pilot study investigates the differences in school motivation and learning strategies between primary school learners enrolled in regular and arts-focused vocational education settings. Using a comparative design, the research aimed to assess subscales including study habits, test-related attitudes, organisational skills, motivation, and anxiety. A total of 26 participants were assessed using the Romanian version of the School Motivation and Learning Strategies Inventory (SMALSI), with results analysed using non-parametric and correlational statistical methods. The current exploratory pilot study underlines the status of adjusting teaching strategies to learners' educational environments, highlighting the potential of arts-focused vocational school education to cultivate effective academic behaviours. The results also call for further exploration of how emotional and motivational dynamics manifest across different school types. Limitations related to sample size and gender representation are acknowledged, with recommendations for future mixed-methods research to deepen understanding of the interplay between motivation, anxiety, and learning strategies in diverse educational settings.*

Keywords: *school motivation; learning strategies; primary education; self-regulated learning.*

How to cite: Simion, A., & Popean, M. (2025). Study on school motivation and learning strategies for primary school learners in arts-focused vocational schools and regular schools. *Revista Românească pentru Educație Multidimensională*, 17(4), 690-712. <https://doi.org/10.18662/rrem/17.4/1075>

Introduction

Education in the twenty-first century must equip students not just to gain academic information, but also to build practical skills that promote lifelong learning and adaptation (OECD, 2021). Motivation and learning methods are integral components of this process because they enable students to interact effectively with academic assignments and govern their own learning (Bibbens, 2018). Motivation increases learners' tenacity, effort, and goal orientation, whereas learning strategies—such as organization, study habits, and test preparation—help students cope with cognitive demands and enhance performance (Pintrich & De Groot, 1990; Zimmerman, 2002). Anxiety, for example, was shown to have a major effect on students' focus, confidence, and test performance (Goetz et al., 2006; Lippiello et al., 2025). Together, these components give a thorough picture of how students navigate their educational contexts.

All human activity takes place in specific settings, where the convergence and interaction of many elements form both the environment and the behaviors that occur inside it. Contextual factors such as institutional structures, teaching approaches, cultural expectations, and peer relationships all have a significant impact on students' learning strategies, motivation, and emotional experiences in school (Chua & Baidon, 2024). Understanding how these contextual dynamics change between ordinary and vocational schools provides the basis for explaining differences in students' study habits, organizational abilities, and assessment attitudes.

In Romania, the term “vocational school” (*liceu vocațional*) encompasses a variety of specialized secondary and primary educational institutions. While vocational schools internationally are often associated with technical or trade education, in the Romanian system this classification also includes arts- and music-focused schools. Examples include: National College of Art Târgu Mureș, Vocational High School of Music "Tudor Ciortea" Brașov, and Music High School "Sigismund Toduță" Cluj-Napoca. These institutions provide an enriched academic curriculum with an emphasis on artistic development. For clarity, we refer to these schools throughout this exploratory pilot study as “arts-focused vocational schools,” distinguishing them from internationally typical trade-oriented vocational schools.

When researching teaching and learning processes, it is acute to note that they do not occur in isolation, but rather are profoundly underlying within numerous levels of context. Both the local educational setting and the larger sociocultural context influence how students approach learning, build

motivation, and implement effective tactics (Kieser et al., 2005; Dumchak et al., 2024; Wang et al., 2020). Understanding these contexts is especially important when researching school motivation and learning strategies in primary education, because children's academic behaviours and emotional responses are influenced by both the physical settings in which they learn and the larger cultural and social frameworks that guide educational practices (Dumchak et al., 2024; Jeong et al., 2022).

We can distinguish between two types of contexts: material context and abstract contexts. Material contexts refer to the tangible and social environments in which teaching and learning occur, including physical locations, resources, lesson structures, activities, and the roles of teachers, parents, and students (Chua & Baidon, 2024). These contexts shape both formal and informal learning experiences. In contrast, abstract contexts encompass the broader sociocultural factors that influence thinking and behaviour, such as historical, ideological, economic, political, social, and cultural dimensions, as well as societal norms, values, and beliefs. Abstract contexts are manifested in the material world through human actions, and are embedded within the artifacts, tools, and technologies created, reflecting underlying values, ideas, and ideologies, including potential biases.

Recognizing the connection of material and abstract environments becomes necessary for exploring school motivation and learning processes, especially in primary school. Children's capacity to manage their learning, stay motivated, and create successful techniques is influenced not just by classroom practices and accessible resources, but also by broader cultural expectations, educational regulations, and society attitudes about education and success. Thus, a full understanding of student motivation and learning techniques must consider both the present learning environment and the larger socio-cultural framework within which education operates.

Zimmerman's (2002) self-regulated learning theory highlights the role of self-motivational beliefs in helping students manage their own learning (Pintrich, 2003; Velayutham & Aldridge, 2013; Wu & Lee, 2017). Self-regulated learning is characterized as a proactive, self-directed activity in which students use their own talents to achieve academic realization. Learners who govern their own learning see it as manageable, allowing them to establish objectives, prepare tactics, track progress, and assess outcomes (Mega et al., 2014; Voulgaridou & Kokkinos, 2018). This theory states that efficient self-regulation depends on three motivating factors: learning goal orientation, task value, and self-efficacy (Ferla et al., 2008; Zimmerman, 2002).

The use of efficient learning techniques is essential for academic achievement. Zimmerman (2002) emphasizes that self-regulated learners use methods such as goal-setting, organization, and rehearsing to enhance results. Organizational skills and study habits, specifically, have been linked to enhanced academic achievement and reduced stress levels (Hueston et al., 2017). In arts-focused vocational schools, the emphasis on applied learning and practical skills frequently produces greater time management and task organization abilities than in regular institutions, where students may be less pushed to put theory into practice (Nägele & Neuenschwander, 2014). Furthermore, good test-related attitudes have been linked to greater preparation and increased confidence, highlighting the interconnection of attitudes, techniques, and performance (Pekrun et al., 2017).

The existing literature demonstrates that school motivation, learning strategies, and anxiety represent crucial dimensions of academic success, yet their manifestation often varies depending on the educational context. While arts-focused vocational schools tend to emphasise practical and applied learning experiences, traditional schools frequently adopt a more theoretical and knowledge-centred approach. These differences could influence how primary school learners approach study tasks, organise their time, regulate their emotions, and maintain motivation. Despite the importance of these factors, research comparing arts-focused vocational schools and traditional school environments at the primary level remains limited, with most studies focusing on secondary or post-secondary education. Children between the ages of 6 and 12 undergo significant physical, cognitive, and emotional development. During this period, they progressively acquire higher-order thinking skills, self-regulatory abilities, and intrinsic motivation for learning. The graded structure of schools aims to provide learning environments and instructional tasks suited to these evolving developmental stages. In such contexts, learning experiences grounded in artistic and experiential practices may effectively nurture creativity, enhance intrinsic motivation, and foster self-regulated learning through alternative instructional approaches.

This exploratory pilot study consequently takes to address this difference by examining the differences in school motivation, learning strategies, and anxiety between learners in vocational schools and those in traditional schools. By employing the Romanian version of the School Motivation and Learning Strategies Inventory (SMALSI), the research aims to generate empirical evidence regarding the specific strengths and weaknesses of students across both school types.

Methodology

Research design and hypothesis

The study explored whether primary school learners enrolled in arts-focused vocational schools differ from those in normal schools in terms of intrinsic motivation, learning strategies, and test-related anxiety. Based on the applied and experiential nature of arts-focused education, it was assumed that students in these settings might demonstrate greater engagement and more frequent use of learning strategies. Given the exploratory nature of the research and the limited sample size, the hypothesis was formulated in an investigative rather than confirmatory manner, aiming to identify preliminary trends rather than statistically generalizable differences.

2.2. Participants and sampling

The participants (N=26) for this exploratory pilot study include children enrolled in regular schools as well as those attending schools with integrated and supplemental art education programs.

Participants were recruited from two types of educational settings: regular primary schools following the standard national curriculum, and arts-focused vocational schools, which are officially classified as vocational schools in Romania. The sample size reflects the specific conditions of data collection, which were limited to institutions that agreed to participate in the pilot phase of a broader research program. While the term “vocational” may imply technical or trade training in an international context, these institutions provide specialized music and arts education, integrating artistic training with the national curriculum. A total of 26 students participated in the exploration pilot, of which 13 were attending regular schools and 13 were enrolled in arts-focused vocational schools (Table 1 and 2). Given the modest sample size and the preliminary nature of the data, this research is designed as an exploratory investigation into the relationship between school motivation, learning strategies, and anxiety among primary school learners in arts-focused and regular educational settings. The primary purpose of this initial phase was to explore data trends and assess the applicability and reliability of the SMALSI instrument within this age group and educational context, rather than to generate generalizable findings.

Table 1. Distribution of participants depending on school

	Frequency	Percent	Valid Percent
Regular school	13	50.0	50.0
Arts-focused vocational school	13	50.0	50.0
Total	26	100.0	100.0

Table 2. Distribution of participants depending on gender

	Frequency	Percent	Valid Percent
Female	15	57.7	57.7
Male	11	42.3	42.3
Total	26	100.0	100.0

The participants in this exploratory pilot study ranged in age from 8 to 12 years, thus covering an essential developmental stage when fundamental cognitive, social and emotional learning skills are actively forming (Rogers & Peersman, 2014). Participants were obtained from urban schools situated in city areas, providing a relatively uniform background in terms of access to educational facilities, qualified teaching staff, extracurricular opportunities, and cultural exposure. The selection of students from an urban environment also facilitated a more consistent comparison between the two types of educational institutions by minimising variables related to resource availability and socio-economic disparities. The incorporation of both regular and art-integrated school participants provided a valuable perspective on how different educational environments may influence students' learning strategies, school motivation, and transferability of skills across contexts. It is important to note that particular attention was paid to ensure a balanced representation of gender, school performance levels and participation in extracurricular activities during the sampling process. However, it should be noted that these variables were not the primary focus of the current analysis. The purpose of this sample composition is to provide a preliminary vision for the exploratory pilot study's overarching objective, which is to identify specific educational practices that have the potential to facilitate more effective, transferable learning strategies and enhance motivation among young learners.

Instrument

Data were collected using the School Motivation and Learning Strategies Inventory (SMALSI), a standardized assessment instrument designed to evaluate key components of students' school motivation and learning strategies. The SMALSI is intended to identify both strengths and vulnerabilities in areas essential for academic functioning.

The instrument evaluates the following dimensions:

- study strategies – techniques used to study and retain information;
- organizational techniques – skills related to time management and task organization;

- motivation – levels of intrinsic and extrinsic motivation toward schoolwork;
- test-taking strategies – methods used to manage evaluative situations effectively;
- test anxiety – the extent to which students experience anxiety symptoms associated with testing and evaluation.

In the current pilot study, the SMALSI was used to examine emerging trends and assess preliminary reliability within this specific age group and educational context.

Procedure and data analysis

Data were collected during regular school hours, with the cooperation of classroom teachers and school administrators. Participation was voluntary and conducted with parental consent. Students completed the SMALSI under standardized instructions appropriate to their age level.

Given the exploratory intent and small sample size, data analysis focused on descriptive statistics, reliability estimation, and preliminary group comparisons. The purpose was to identify initial differences, tendencies, and instrument behavior, rather than to draw conclusive causal inferences.

IBM SPSS Statistics 26 was used to analyse the raw data obtained from the tools used. The dataset includes scores for 26 participants, covering five key dimensions evaluated through the SMALSI questionnaire: Study Strategies (STUDIUI), Test Anxiety (TEST), Time Management and Organization (TIMORG), School Motivation (LOMOT), and General Anxiety (TANX).

The present exploratory pilot study targeted to examine variations in learning strategies and self-regulation skills between students attending regular schools and those enrolled in arts-focused vocational schools. For each SMALSI subscale (STUDIUI, TEST, TIMORG, LOMOT, TANX), the following hypotheses were formulated:

- The null hypothesis (H_0) stated that there would be no significant difference between the two groups of students on each of the subscales.
- The alternative hypothesis (H_1) stated that there would be a significant difference between the two groups of students on each of the subscales.

Cronbach's alpha was computed separately for each SMALSI subscale to ensure internal consistency within distinct constructs, rather than across all subscales combined. This approach follows standard psychometric

practice given the multidimensional nature of the SMALSI. According to conventional thresholds, Cronbach's Alpha value above 0.60 is considered acceptable for exploratory research, especially when dealing with psychological constructs and small sample sizes (table 3).

Table 3. Internal coefficient of the items in the SMALSI subscale

Reliability Statistics		
Subscale	N of items	Cronbach's Alpha
Study strategies (STUDIU)	14	0.730
Test strategies (TEST)	12	0.700
School motivation (LOMOT)	19	0.680
Time management and organization (TIMORG)	18	0.750
Test anxiety (TANX)	21	0.650

(source: authors' analysis)

Thus, the obtained alpha indicates a moderate level of internal consistency among the SMALSI subscales, suggesting that the items are sufficiently correlated to be treated as a group for further analysis.

To assess the distribution of the data for each group and determine the appropriate statistical tests to apply, normality tests were conducted for both the regular school and arts-focused vocational school groups. For the present exploratory pilot study, the Kolmogorov-Smirnov and Shapiro-Wilk tests were employed, as they are widely utilised to evaluate normality. The findings of these evaluations inform the determination regarding the utilisation of parametric tests, which operate under the assumption of normality, or non-parametric tests, which do not meet the assumptions.

The results of the normality tests for the regular school group (referred to as "Regular school") demonstrate that the data for all subscales failed to meet the assumption of normality. Specifically, both the Kolmogorov-Smirnov and Shapiro-Wilk tests produced significant results ($p < 0.05$) for each subscale, signifying that the distributions of the data for the STUDIU, TEST, TIMORG, LOMOT, and TANX subscales significantly deviate from normality (table 4). This finding indicates that the data for this group may not be normally distributed. In view of these findings, non-parametric tests were considered more suitable for subsequent analyses, as they do not presuppose normality in the data distribution.

Table 4. Analysis of normality tests for the subscales in regular schools

Tests of Normality						
	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
STUDIUI	.346	13	.000	.795	13	.006
TEST	.281	13	.006	.851	13	.029
TIMORG	.345	13	.000	.647	13	.000
LOMOT	.327	13	.000	.719	13	.001
TANX	.325	13	.001	.759	13	.002

(source: authors' analysis)

The results of the normality tests for the arts-focused vocational schools group demonstrate that the data for all subscales satisfy the assumption of normality. The Kolmogorov-Smirnov and Shapiro-Wilk tests for each subscale yielded non-significant results ($p > 0.05$), implying that the distributions of the data for the STUDIUI, TEST, TIMORG, LOMOT, and TANX subscales are not significantly different from normal. The findings indicate that the data for this group adheres to a regular distribution, thereby rendering parametric tests suitable for subsequent analyses (table 5).

Table 5. Analysis of normality tests for the subscales in arts-focused vocational schools

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
STUDIUI	.130	13	.200*	.949	13	.584
TEST	.190	13	.200*	.920	13	.248
TIMORG	.110	13	.200*	.989	13	.999
LOMOT	.170	13	.200*	.902	13	.141
TANX	.144	13	.200*	.961	13	.774

*. This is a lower bound of the true significance.

(source: authors' analysis)

The results showed significant differences for the STUDIUI, TEST, and TIMORG subscales, leading to the rejection of the null hypothesis for these dimensions. For the LOMOT and TANX subscales, the differences were not statistically significant, and thus the null hypothesis was retained for these scales.

The Mann-Whitney U test was chosen as the appropriate statistical method for comparing the two independent groups (students from regular schools and students from arts-focused vocational schools) on the SMALSI subscales.

This decision was based on the results of the normality tests (Shapiro-Wilk and Kolmogorov-Smirnov), which indicated that the assumption of regular distribution was not met for several subscales within the regular school group. As parametric tests such as the independent samples t-test require normally distributed data and our sample size was relatively small (N=26), a non-parametric alternative was required. The Mann-Whitney U test does not assume normality and is robust to small sample sizes. It compares the distributions of two independent groups, assessing whether the ranks of the scores are significantly different. It was therefore the most appropriate test to accurately identify group differences under the conditions of this exploratory pilot study.

Table 6. The Mann-Whitney U for the subscales across the 2 groups

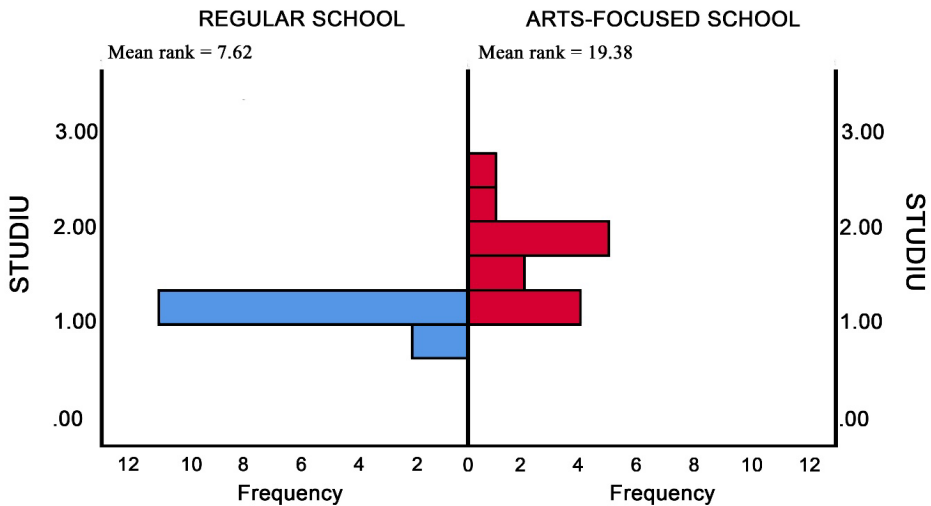
Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of STUDIU is the same across categories of school.	Independent-Samples Mann-Whitney U Test	.000 ^a	Reject the null hypothesis.
2	The distribution of TEST is the same across categories of school.	Independent-Samples Mann-Whitney U Test	.000 ^a	Reject the null hypothesis.
3	The distribution of TIMORG is the same across categories of school.	Independent-Samples Mann-Whitney U Test	.000 ^a	Reject the null hypothesis.
4	The distribution of LOMOT is the same across categories of school.	Independent-Samples Mann-Whitney U Test	.050 ^a	Retain the null hypothesis.
5	The distribution of TANX is the same across categories of school.	Independent-Samples Mann-Whitney U Test	.264 ^a	Retain the null hypothesis.
Asymptotic significances are displayed. The significance level is .050.				
a. Exact significance is displayed for this test.				

(source: authors' analysis)

The Mann-Whitney U (table 6) test was employed to compare the distributions of subscale scores across two school categories (Regular school vs. arts-focused vocational schools). The results of this test revealed varying

degrees of significant differences. Specifically, significant differences were identified in the distributions of the *STUDIU*, *TEST* and *TIMORG* subscales, with p-values of 0.000, indicating that the distributions between the two school types were significantly different for these variables. However, the *LOMOT* subscale exhibited a value of 0.050, which is at the limit of statistical significance, suggesting an absence of substantial evidence to reject the null hypothesis. In a similar line, the *TANX* subscale yielded a p-value of 0.264, indicating no important difference between the two school categories. These findings suggest that while certain dimensions of the students' profiles, such as *STUDIU*, *TEST*, and *TIMORG*, exhibit distinct differences based on school type, other areas, like *LOMOT* and *TANX*, do not show substantial variability across the two groups.

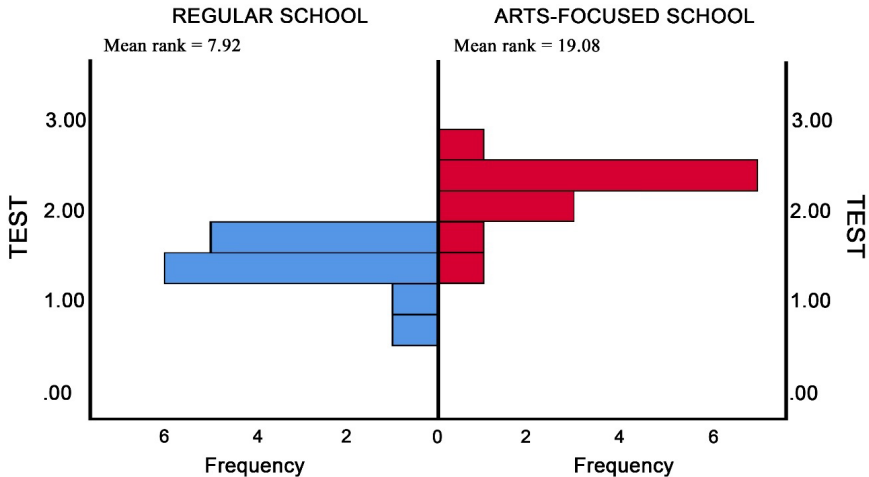
Figure 1. Independent-Samples Mann-Whitney U Test Summary for *STUDIU* subscale



(source: authors' analysis)

The results of the Mann-Whitney U tests reveal significant differences between regular and arts-focused vocational schools in the *STUDIU*, *TEST*, and *TIMORG* subscales, with p-values of 0.000, indicating that these dimensions of student profiles are influenced by school type. This suggests that the students in regular and arts-focused vocational schools demonstrate distinct patterns in their responses to these subscales.

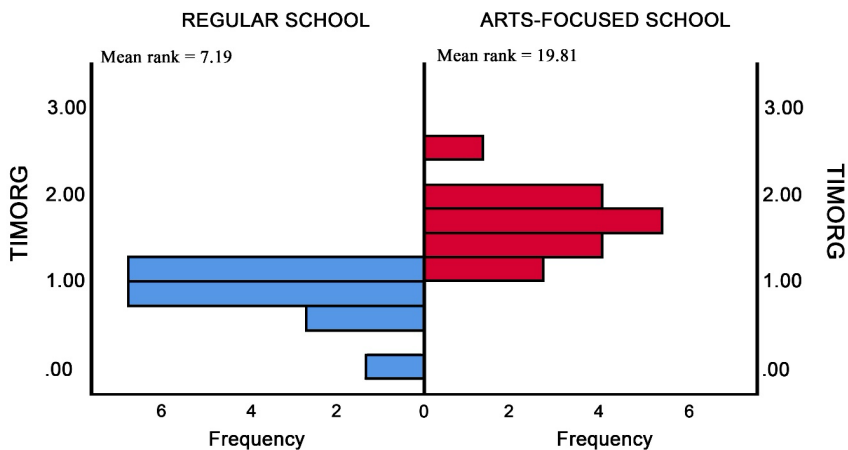
Figure 2. Independent-Samples Mann-Whitney U Test Summary for TEST subscale



(source: authors' analysis)

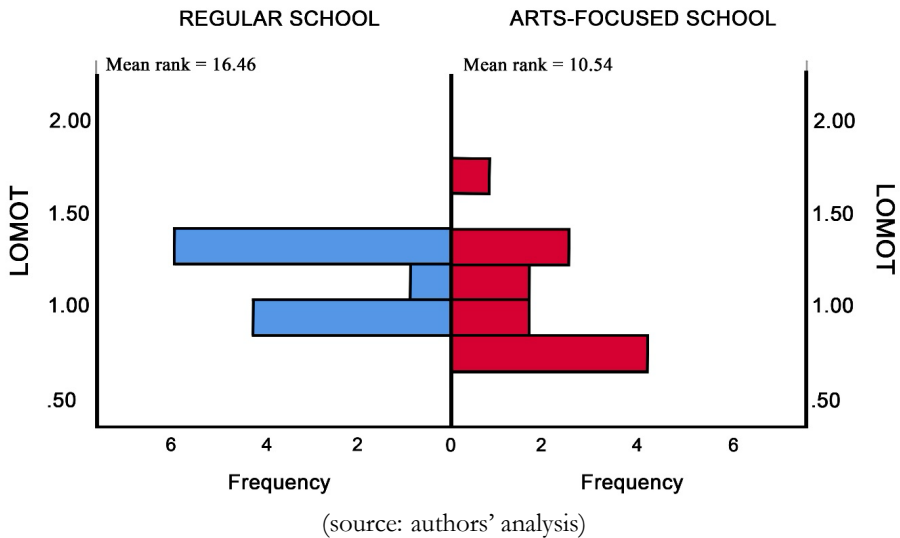
Furthermore, no significant differences were found in the *LOMOT* and *TANX* subscales, with p-values of 0.050 and 0.264, respectively, indicating that these factors remain largely similar across both school types. The findings suggest that while certain aspects of students' profiles, such as study behaviors, test-related attitudes, and organizational skills, are influenced by the type of school, others, like motivation and anxiety, do not show significant variation between the two groups.

Figure 3. Independent-Samples Mann-Whitney U Test Summary for TIMORG subscale



(source: authors' analysis)

Figure 4. Independent-Samples Mann-Whitney U Test Summary for LOMOT subscale



In order to further explore the distribution of responses within the arts-focused vocational school group, measures of central tendency and dispersion were calculated for each subscale, including STUDIU, TEST, TIMORG, LOMOT, and TANX. Specifically, the mean, median and mode were computed in order to assess the average, typical and most frequent responses for each subscale. Furthermore, the standard deviation and range were evaluated in order to examine the variability and spread of the data. These statistical analyses provide a comprehensive understanding of the patterns and distribution of responses within the arts-focused vocational school group, offering valuable insights into the overall data structure and variability (table 7 and 8).

Table 7. Descriptive statistics for SMALSI subscales for the arts-focused vocational school group

Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
STUDIU	13	1.00	2.71	1.6703	.45132	.713	.616	1.205	1.191
TEST	13	1.17	2.75	2.1667	.41805	-1.151	.616	1.598	1.191
TIMORG	13	1.11	2.50	1.7778	.37406	.072	.616	-.017	1.191
LOMOT	13	.68	1.63	1.0000	.28828	.834	.616	.121	1.191
TANX	13	.43	2.57	1.3407	.61440	.273	.616	-.078	1.191
Valid N	13								

(source: authors' analysis)

The descriptive statistics for each subscale in the arts-focused vocational school group provide a clear overview of the data distribution. For STUDIU, the mean score is 1.67, with a standard deviation of 0.45, indicating moderate variability. The skewness value of 0.71 indicates a slight rightward skew, while the kurtosis value of 1.21 suggests a moderately peaked distribution. For the TEST data, the mean is 2.17, with a standard deviation of 0.42. This indicates a negative skew of -1.15, suggesting that the majority of values are concentrated towards the higher end of the scale. The kurtosis of 1.60 indicates a relatively peaked distribution. In TIMORG, the mean score is 1.78, with a standard deviation of 0.37, indicating a nearly symmetrical distribution. The skewness measures at 0.07, while the kurtosis is -0.02. The LOMOT subscale has a mean of 1.00, with a standard deviation of 0.29, a skewness of 0.83, and a kurtosis of 0.12, indicating a moderately skewed distribution. Finally, for TANX, the mean is 1.34, with a standard deviation of 0.61, a skewness of 0.27, and a kurtosis of -0.08, indicating a reasonably symmetrical distribution with light tails.

Table 8. Correlation analysis between different subscale in the arts-focused vocational school group

		Correlations				
		STUDIUI	TEST	TIMORG	LOMOT	TANX
STUDIUI	Pearson Correlation	1	.478	.417	-.284	.262
	Sig. (2-tailed)		.098	.156	.347	.387
	N	13	13	13	13	13
TEST	Pearson Correlation	.478	1	.651*	-.510	-.229
	Sig. (2-tailed)	.098		.016	.075	.451
	N	13	13	13	13	13
TIMORG	Pearson Correlation	.417	.651*	1	-.305	-.127
	Sig. (2-tailed)	.156	.016		.311	.680
	N	13	13	13	13	13
LOMOT	Pearson Correlation	-.284	-.510	-.305	1	.489
	Sig. (2-tailed)	.347	.075	.311		.090
	N	13	13	13	13	13
TANX	Pearson Correlation	.262	-.229	-.127	.489	1
	Sig. (2-tailed)	.387	.451	.680	.090	
	N	13	13	13	13	13

*. Correlation is significant at the 0.05 level (2-tailed).

(source: authors' analysis)

Within the arts-focused vocational school group, the implementation of a Pearson correlation analysis yielded several noteworthy relationships between the subscales. A moderate positive correlation was identified between 'TEST' (test-related attitudes) and 'TIMORG' (organisational skills), $r = 0.651$, $p = 0.016$, suggesting that students with superior organisational skills tend to exhibit more positive test-related attitudes. Additionally, a moderate negative correlation was identified between 'TEST' and 'LOMOT' (motivation), $r = -0.510$, $p = 0.075$, suggesting that higher test-related attitudes were associated with lower motivation. However, this result did not reach statistical significance at the 0.05 level. The 'STUDIUI' (study habits) variable demonstrated a positive, moderate correlation with 'TEST', $r = 0.478$. However, this relationship did not attain statistical significance ($p = 0.098$).

Further correlations of interest were observed between LOMOT and TANX (anxiety), where a moderate positive correlation was found, $r = 0.489$, though this result was marginally significant at $p = 0.090$. A number of additional correlations were identified, including those between TIMORG and TANX, as well as STUDIU and TANX. However, these correlations were found to be weak and not statistically significant, with p -values well above the 0.05 threshold. The overall correlations between subscales in the arts-focused vocational school group reflect a combination of moderate to weak relationships, with a few significant associations, notably between TEST and TIMORG, and LOMOT and TANX, suggesting areas for further exploration in understanding how these factors interact within this group.

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Limitations

Despite the valuable insights provided by the study, the generalizability of the results is limited by the relatively small sample size in certain groups, particularly males. It is evident that further research is

required with larger, more diverse samples in order to enhance comprehension of the relationships between academic attitudes, motivation and anxiety in vocational students. Furthermore, qualitative approaches have the potential to capture the more nuanced experiences of vocational students, especially in relation to their perceptions of motivation, anxiety, and organisational skills. This study should be interpreted as exploratory rather than confirmatory. The relatively small and uneven sample size restricts the generalizability of the results and limits the statistical power of the analyses. Nevertheless, the observed trends—particularly the higher organizational skills and more positive test-related attitudes in arts-focused students—offer meaningful directions for future research. Larger, longitudinal studies are needed to confirm these preliminary findings and to examine how educational context, motivation, and self-regulation interact across different developmental stages.

Discussions

The analysis yielded valuable insights into the differences and relationships between subscales in the arts-focused vocational school and regular school groups. The Mann-Whitney U test revealed significant differences in *STUDIUM*, *TEST*, and *TIMORG* between the two groups, indicating that students in arts-focused vocational school have different study habits, test-related attitudes, and organisational skills compared to students in regular schools. However, no significant differences were found in *LOMOT* and *TANX*, suggesting that motivation and anxiety are not as strongly influenced by the school type.

In the arts-focused vocational school group, the correlations indicate a moderate association between test-related attitudes and organisational skills, while concurrently demonstrating a negative trend between test-related attitudes and motivation. However, the relationships between *STUDIUM* and the other subscales were weak.

Differences between regular and arts-focused vocational school groups: The Mann-Whitney U tests revealed significant differences in *STUDIUM*, *TEST*, and *TIMORG* between regular and vocational school students. In particular, students from regular school showed lower scores for study habits, test-related attitudes, and organizational skills compared to their vocational school counterparts. These findings align with previous research indicating that students may face unique challenges, such as lower academic motivation and less developed organizational skills, potentially due to the nature of training programs, which often prioritize theoretical learning over practical (European Centre for the Development of Vocational

Training, 2017). It was shown that arts-focused vocational school students exhibited significantly higher scores in several domains, particularly in organisational skills (TIMORG) and test-related attitudes (TEST). It was evident that these students exhibited a more pronounced capacity to organise their tasks, manage their time, and approach their exams with a greater sense of confidence and structure. This phenomenon may be indicative of the arts-focused vocational school curriculum, which is frequently designed to prioritise practical learning and the development of specific career skills (Zamiri & Esmaeili, 2024). These findings are consistent with the hypothesis that vocational training emphasises real-world applications and time management, potentially fostering skills in students that directly translate into better organisation and preparation for exams (OECD, 2023). Similarly, it was observed that vocational students exhibited elevated levels of motivation. This finding suggests that their career-oriented focus may serve as a catalyst for their academic and extracurricular endeavours (Kettunen, 2023).

On the other hand, LOMOT (motivation) and TANX (anxiety) did not show significant differences across the two groups. This suggests that motivation and anxiety levels may not vary as widely between arts-focused vocational school and regular school students, highlighting the complex nature of these emotional and cognitive factors in educational settings (Wu & Lee, 2017; Gedda-Muñoz et al., 2023). Previous studies have similarly reported that while academic and organizational skills differ across educational contexts, motivation and anxiety can be more universal across different types of schools (Lee-Genzel & Bekir, 2024).

The Pearson correlation analysis within the vocational group revealed several significant relationships. The correlation between TEST (test-related attitudes) and TIMORG (organizational skills) was a positive association; however, given the very small sample size, this finding should be interpreted with caution and considered strictly exploratory in nature. This finding suggests that students with more positive attitudes toward tests tend to possess stronger organizational skills. This aligns with previous research which suggests that positive academic attitudes can lead to better academic behaviors, such as organization and planning (Chen & Tu, 2021; Liu et al., 2024).

However, the correlation between TEST and LOMOT (motivation) was moderately negative, although not statistically significant. This aligns with other studies that suggest students with high academic achievement or test-related focus may sometimes exhibit lower school motivation, as they are more focused on performance outcomes than on learning for its own

sake (Ryan & Deci, 2020). This paradoxical relationship warrants further investigation into how different aspects of academic motivation influence performance and psychological well-being.

The positive but non-significant correlation between LOMOT and TANX (anxiety) also suggests that, in vocational students, higher motivation may be linked with higher anxiety, though this relationship is weak. This finding could be reflective of the stress that often accompanies a high level of motivation, particularly in high-stakes environments such as vocational training programs, which are often performance-oriented and can increase pressure (Held & Megeh, 2024)

Conclusions

In the present exploratory pilot study, a comparison was made between regular and arts-focused vocational school students across several subscales, including organisational skills, test-related attitudes, motivation, anxiety, and study behaviours. The subsequent data analysis yielded meaningful insights into the performance of these two distinct student groups, revealing a range of both significant and non-significant differences between them.

The findings from this exploratory pilot study are consistent with previous research on vocational education, which has highlighted the differences between vocational and academic students in terms of organizational skills, study habits, and academic attitudes. Research Chen & Tu (2021) points to the unique challenges faced by vocational students. However, they also emphasize that these students often exhibit higher levels of school motivation related to their practical, hands-on learning experiences. This contrast is somewhat mirrored in our results, where motivation and anxiety did not differ significantly between vocational and regular school students.

Findings by Held & Megeh (2024), who established that positive academic attitudes are strongly linked to better organizational skills reinforces the importance of fostering positive test-related attitudes among arts-focused vocational school students to enhance their overall academic performance and organizational skills. Interpreted through Zimmerman's (2002) self-regulated learning theory, the findings suggest that school environments emphasizing practical, experiential learning can enhance students' planning, organization, and self-monitoring abilities. Similarly, frameworks on self-motivation (Pintrich, 2003; Velayutham & Aldridge, 2013) indicate that while intrinsic and extrinsic motivation is necessary, it is shaped by the interaction between students and their learning contexts.

Vocational schools frequently incorporate experiential learning and internships, which have been shown to better prepare students for real-world challenges, fostering self-efficacy and confidence (Van Der Veen & Peetsma, 2020). This approach stands in contrast to the more conventional academic focus of regular schools, which have been observed to place greater emphasis on theoretical knowledge acquisition without necessarily ensuring the same level of practical application (Van Ryneveld et al., 2020). Consequently, vocational students may not only be better prepared in terms of practical skills but also exhibit a greater level of academic engagement due to the direct relevance of their studies to their future careers (European Centre for the Development of Vocational Training., 2017; Held & Meje, 2024; Lee-Genzel & Bekir, 2024). However, both groups demonstrated comparable levels of motivation and anxiety, suggesting that certain academic challenges persist irrespective of the educational approach employed.

In practice, teachers might provide clear task planning frameworks, guided study routines, and step-by-step preparation for assessments to strengthen students' self-regulation. Additionally, integrating experiential or arts-based activities that require active problem-solving and collaborative planning can further reinforce organizational habits and positive test-related mindsets. By explicitly teaching these skills alongside traditional academic content, educators can support students in developing more effective study behaviors, fostering both competence and confidence in their learning.

Informed Consent Statement | *Informed consent was obtained from all participants involved in the study.*

Statement on the Use of AI Tools | *In the development of this manuscript, Quill Bot was used solely to support language refinement, including translation and improving clarity. It was not involved in generating ideas, structuring the manuscript, or interpreting scientific content. All research, data analysis, methodology, and conclusions were conducted independently by the author, with all factual statements verified prior to submission.*

Acknowledgments | *The researchers are grateful to the participants for their participation. The authors wish to clarify that the term “arts-focused vocational schools” as used in this study follows the Romanian national education classification and includes schools with an artistic focus.*

Conflicts of Interest | *The authors declare no conflicts of interest.*

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