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IMPORTANCE OF SCHOOL CLIMATE FOR STUDENT DEVELOPMENT AND ANALYSIS OF ITS DETERMINANTS IN A NON-SKILLS-FOCUSED EDUCATION SYSTEM*

Introduction: The article analyses the differences between developmental and career-oriented climates of students in different types of schools. The theoretical analysis integrates psychological, sociological, neuroscientific and educational theories to show that school climate is an important factor influencing students' future career success.
Research Aim: The objective of this article is to present school climate as a pivotal factor influencing comprehensive student development and to underscore the significance of climate in the context of their prospective careers.
Research Method: The survey was conducted among students in the final years of primary school in three different types of schools. Quantitative analysis (ANOVA and Spearman correlation) was used for the analysis.
Results: The research shows that school climate is the factor that most differentiates between private and public school. The research also shows the key role of teachers and the school climate in shaping students' attitudes and behaviour and in strengthening students' aspirations for their future careers. The results of the study highlight the possibility of creating different developmental incentives within the same education system, showing that the effectiveness of the system can be increased by incremental changes rather than only by systemic changes.
Conclusions: The article proposes the implementation of an educational policy that adopts a holistic approach to education, aligning pedagogical strategies with the goal of increasing students' career readiness and aspirations.

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INTRODUCTION

School climate plays a key role in the development of students and strongly influences their further educational and career paths. Classical psychological theories and concepts in the cognitive domain emphasise the need to meet basic deficits, including safety and a sense of belonging, before higher cognitive processes, such as learning, can be effectively initiated (Eysenck and Groome, 2015). A safe, inclusive and inspiring school climate meets these basic needs and enables students to focus on their learning and their educational, professional and personal development (Wulan and Sanjaya, 2022).

The school environment, which encompasses the physical, mental and social aspects of school functioning, plays a key role in supporting students' learning and development (Higgins et al., 2005; Thapa et al., 2013; Martinsone et al., 2023). A positive and nurturing school climate and a supportive and stimulating learning environment are key factors that contribute to creating a positive school climate for students (Syahril and Hadiyanto, 2018). School climate influences the success of the learning process, that is, academic achievement, the development of extracurricular interests, and the attitudes and behaviours of the students themselves. Creating and maintaining a stimulating learning environment, e.g. through group and individual support, setting developmental goals or being open to creativity and innovation, is essential for better learning (Higgins et al., 2005; Afzal et al., 2023). In addition to their educational and developmental value, these factors contribute to an optimal educational climate that promotes personal safety and reduces violence and risky behavior (Thapa et al., 2013).

A key issue in socio-economic development today is how to develop human capital, in particular skills and competences, so that workers, including graduates, can cope well with the challenges of today's economy and labour market (Hanushek and Woessmann, 2007; Frey and Osborne, 2017). Job matching, and even more so skills matching, is becoming a pressing issue and challenge for public policy. Increasing mismatches and the emergence of structural tensions in the labour market are becoming apparent (Acemoglu and Restrepo, 2022). Macro-social and macro-economic challenges are in this case dependent on effective action at the micro level and change at this level can only be brought about by effective systemic action shaped by precise educational policies.

Here, we would like to present a theoretical and conceptual framework that places school climate at the centre of the factors influencing student development in the context of the challenges of the future labour market. Climate (sometimes referred to in the literature as "school atmosphere") has been identified as one of

the key factors in determining students' subsequent attitudes and behaviours in the context of their future careers. Our research shows, it is this aspect that varies most between schools within the same education system.

The starting point for our analysis is Bronfenbrenner's ecological systems theory, which provides a framework for understanding the key role of school climate in shaping students' career development (Leonard, 2011; Ettekal and Mahoney, 2017; Tong and An, 2024). This theory portrays the development of an individual as part of a system of interrelated systems, each contributing in a different and unique way.

At a basic level, the theory distinguishes between the microsystem, which is the immediate environment that affects students. This environment includes units such as the classroom that directly influence students. Here, positive teacher-student interactions and peer relationships play a key role in fostering a sense of belonging, encouraging exploration and supporting academic and personal growth, which is crucial for personal and student development, for the acquisition of qualifications and skills (Afzal et al., 2023). Bronfenbrenner's framework makes it clear that school climate profoundly influences students' skills, values, attitudes and perceptions.

Other concepts that directly point to the important role of school climate in the development of students for future employment include social learning theory, the psychological impact concept, the emotional intelligence concept, neuroscientific perspectives, the sociology of education, and the 21st-century skills concept. These concepts and how they identify the impact of school climate on the development of students' skills and qualifications are presented in the table (Table 1).

Table 1.
Concepts discussing the impact of school climate on student development

Theoretical framework	Key insights on the role of school climate in skill development and professional preparedness
Psychological impact	Educational psychology suggests that a positive school climate increases student motivation and engagement. According to research, a supportive and encouraging environment can foster a growth mindset, which leads students to accept challenges, persevere in the face of setbacks, and see effort as a path to mastery. This mindset is crucial for career development (Dweck, 2007)
Social learning theory	The social learning theory suggests that people learn from each other through observation, imitation and modelling. A positive school climate that encourages collaborative learning and peer interaction facilitates this process. Exposure to different perspectives and teamwork skills are essential in a professional environment (Bandura, 1993)
Emotional intelligence	This concept highlights the importance of self-awareness, self-regulation, empathy and social skills for personal and professional success. A positive school climate that supports emotional intelligence prepares students for interpersonal dynamics in the workplace (Goleman, 2006; Goleman et al., 2002)

Neuroscience perspectives	Neuroscience research shows that stress can affect brain function and learning. A positive school environment with low stress and meaningful support can improve cognitive functions such as memory, attention and problem-solving skills, all of which are critical for career development (Lupien et al., 2009)
Educational sociology	Sociological perspectives on education emphasise the role of schools in socialisation and the transmission of cultural norms. A school climate that values ethical behaviour and social responsibility prepares students to work in a heterogeneous professional environment (Robinson, 2017)
21st-century skills	In changing labour markets, skills such as critical thinking, creativity, communication and collaboration are increasingly valued. A dynamic and innovative school climate can develop these skills and adapt education to the demands of today's professional environment (DiBenedetto, 2019; Koehorst et al., 2021)

Source: Authors' own study.

In examining the impact of school climate on student achievement and career readiness, an interdisciplinary approach reveals multiple influences (Thapa et al., 2013). Educational psychology emphasises the role of a supportive school environment in fostering resilience and a proactive approach to learning challenges (Dweck, 2007; Eysenck and Groome, 2015; Wang and Degol, 2016). Social learning theory emphasises the importance of shared learning environments for observational learning. The concept of emotional intelligence emphasises the role of school climate in developing key interpersonal skills (Goleman et al., 2002; Goleman, 2006). In contrast, neuroscientific evidence suggests that a safe, inclusive and low-stress school environment is fundamental to effective learning (Lupien et al., 2009). Sociological perspectives and 21st-century skills concept inspire the development of key skills for the modern labour market (DiBenedetto, 2019; Koehorst et al., 2021).

Bronfenbrenner's ecological systems theory conceptualises student development within interrelated systems, from the immediate classroom environment (microsystem) to broader social and cultural norms (macrosystem). The theory emphasises the importance of a coherent and positive educational environment at these levels in influencing a student's holistic development (Hanushek and Woessmann, 2007; Cohen et al., 2009; Zynuddin et al., 2023). The integration of these theories illustrates the profound impact of a positive school climate on student development (Darling, 2007; Robinson, 2017; Zynuddin et al., 2023).

Extensive research also confirms the clear impact of school climate and environment on the development of students' skills. It should be noted that these studies have been conducted in different cultural contexts, on students in private and public schools, often in the form of comparative studies between residents of different countries. The effects of various variables in the classroom environment on students' behaviour, attitudes and achievement have been investigated (Weinstein, 1979). The research results highlight the importance of teachers as role models.

RESEARCH AIM AND QUESTIONS

The objective of this article is to present school climate as a pivotal factor influencing the comprehensive development of students and to emphasise the role of climate in the context of their prospective professional career. The article seeks to situate the empirical findings within a broader theoretical context, integrating psychological, sociological and educational perspectives in order to gain a deeper understanding of the ways in which various aspects of school climate can influence the process of student development. Furthermore, the article aims to demonstrate the practical implications of school climate for educational strategies and policies, suggesting potential improvements for enhancing the effectiveness of the education system.

The term "school climate" encompasses not only the tangible elements of school climate, such as teaching, activities, staff policies or practices, but also the intangible, emotional and psychological aspects of the educational environment (Cohen et al., 2009; Thapa et al., 2013). It reflects the subtle but multifaceted impact of the educational environment on students' behaviour, engagement and overall wellbeing. In this way, the educational environment stimulates students and influences their development more than the educational process.

The choice of "school climate" as the main topic of this research paper is supported by the findings of existing research and also by identified research gaps. To demonstrate the importance of school climate for pupil development, we draw on a literature review and a review of theoretical concepts. A systematic review of the literature in this area (Zynuddin et al., 2023) highlights the positive and nurturing aspects of school climate as essential to the development of non-cognitive skills, including behaviour, attitudes and emotional intelligence, which are key predictors of long-term success in students' lives, including their future careers.

The objective of the research is to empirically identify the relationship between school climate and the development of the skills and competencies required by students for future professional work. The research project is concerned with the analysis of the influence of selected pedagogical factors, such as teacher support and classroom atmosphere, on the development of students' attitudes and career aspirations. Furthermore, the research aims to identify differences in perceptions of school climate between students attending different types of schools, thus providing a more profound understanding of the impact of school structure and organisation on students' experiences.

We were interested in a universal approach, unencumbered by the prevalence of public schools in the population. Therefore, a key aspect was to conduct the research in a variety of schools that differed in terms of location and legal status. Our demonstration of the link between school climate and students' cognitive and non-cognitive skills may shed light on the crucial role that school climate plays in shaping their future career prospects and holistic development. The identification

that teachers' behaviours and attitudes are crucial in creating a pro-developmental school climate, will allow the design of systemic solutions based on strengthening the role of teachers in the educational process. We therefore posed the following research questions:

1. Which aspects of school climate are most significantly correlated with the development of skills and qualifications that prepare students for future professional life?

2. Does the type of school (e.g. private vs. public) significantly influence students' perceptions of school climate?

3. Which pedagogical practices are most strongly correlated with students' perceptions of a positive school climate?

RESEARCH METHOD AND SAMPLE CHARACTERISTICS

The study conducted focused on the development of attitudes and competences of final year primary school students, with a special emphasis on their future employment and career choices. The study was conducted in late 2022 and early 2023 in three primary schools selected to participate in a non-formal education development project implemented by the Krakow University of Economics (Poland). The schools selected for the study differed in location (urban or rural) and ownership (private or public). The study group consisted of an urban private school, a rural public school and an urban public school. The survey was conducted through an anonymous online questionnaire aimed at final year students. The survey was supplemented by in-depth interviews with staff and stakeholders in the schools surveyed. All students in the classes participated in the project activities and workshops, and all project participants completed the survey. The research sample for the survey comprised 187 people.

Non-probabilistic sampling was used to select schools that adequately represented the surveyed individuals based on the criteria adopted and replicated their characteristics (Blalock, 1979; Creswell et al., 2017). The units studied were purposively included in the sample. The same surveys were carried out in each of the schools. As part of the initial phase of the analysis, the following key variables were identified:

– School climate: assessed by students' perceptions of the inspiring influence of the school on the development of their skills and ideas related to future careers. Example indicator: "The school climate inspires us to develop skills and ideas for our future careers".

– Teacher support and teaching practices: measured by student ratings of specific teacher behaviours, such as Encouraging questions ("Teachers encourage me to ask questions"). Understanding the student's perspective ("Teachers try

to understand my point of view"). Focusing on and marking important aspects ("Teachers pay attention to important things and mark me for them"). Positive reinforcement ("Teachers praise me when I do something well").

– Preparation for future work: assessed by statements about the extent to which the school and teachers help students prepare for their future working lives. Examples of indicators are "The school prepares me well for future work", "Teachers take care to show us things we need for our future work".

The survey questionnaire used questions to assess the school climate and teachers' teaching practices. Below are examples of questions used in the survey: "To what extent do you agree with the following statement: Teachers encourage me to ask questions". "How much do you agree with the following statement: Teachers try to understand my point of view". "How much do you agree with the following statement: Teachers pay attention to important things and evaluate me for them". "How much do you agree with the following statement: Teachers praise me when I do something well".

The answers to the above questions were given on a Likert scale from 1 to 5, where 1 meant *strongly disagree* and 5 – *strongly agree*. This allowed us to quantitatively measure students' perceptions of certain aspects of the school climate and teaching practices. To answer the initial research question, which aspects of school climate are most significantly correlated with the development of skills and qualifications that prepare students for future professional life, a Spearman correlation analysis was conducted. This correlation enables the assessment of which aspects of school climate, such as teacher support or a collaborative atmosphere, are most significantly related to the development of students' skills and career aspirations. The selection of the Spearman correlation was justified on the grounds that it enables the strength and direction of relationships between variables to be determined even when they do not have a normal distribution, when relationships between variables are non-linear or when variables are measured on ordinal scales (Blalock, 1979). The ordering of the data permits the consideration of the ranking of the values of the variables, which is of pivotal importance in the context of our study, where we sought to ascertain both the direction and strength of the relationship between the variables.

The second research question is as follows: The objective of this study is to ascertain whether the type of school (e.g. private vs. public) significantly influences students' perceptions of school climate. It was tested using an analysis of variance (ANOVA). This analysis assesses the differences in the perception of school climate between different types of schools, such as public and private schools, thereby addressing the research question concerning the influence of school structure and organisation on students' perceptions of school climate. The variable that differentiated schools in a statistically significant manner, as determined by the ANOVA test, was selected for further analysis. The selected variable was "School

climate inspires us to develop ideas for our future careers". With regard to the remaining variables, the observed differences were either negligible or not statistically significant. The ANOVA test enabled the identification of significant differences between the groups, thus, confirming that school type exerts an influence on school climate.

To address the third research question (Which pedagogical practices are most strongly correlated with students' perceptions of a positive school climate?), a Spearman correlation analysis was employed to examine the interrelationships between diverse pedagogical practices and perceived school climate. This analysis identifies which specific teacher actions, such as encouraging students to ask questions or showing understanding, are key in shaping a school climate that is conducive to student development. The choice of correlation and analysis of variance (ANOVA) methods is appropriate for addressing the specific research questions posed and allows us to answer issues concerning both individual pedagogical factors and structural differences between school types.

RESULTS

The variable rating the school climate as more conducive to the development of skills and qualifications needed for future working life showed the highest value of difference among the schools surveyed.

The ANOVA test showed the existence of differences between the means. However, due to the large number of tests carried out, their results are not presented in this article. In order to determine which categories of variables differed and how they differed, further tests were carried out. Based on the results of the Tukey test (Table 2), a statistically significant difference was found between the mean scores of the urban private school and the urban public school. The mean score for the private school was 0.99 higher ($p < 0.000$). The accepted confidence interval (95%) did not contain zero (0.43 to 1.57), further confirming this difference. The analysis also showed a statistically significant difference between the mean scores of the private school and the rural public school. The mean score for the private school was 0.75 higher ($p < 0.000$), with a 95% confidence interval of 0.21 to 1.34. In contrast, there was no statistically significant difference between the mean scores of urban and rural public schools ($p = 0.630$).

In this case, the results indicate that students from private schools rate the school climate as more inspiring compared to students from public schools in both urban and rural areas. Students from urban and rural public schools do not rate the school climate significantly differently.

Table 2.
Differences between school climate scores based on Tukey's test conducted for ANOVA

Type of school		Difference of means	Standard error	Significance	95% confidence interval	
					Lower bound	Upper bound
Urban private school	rural public	.77*	0.24	0.000	0.21	1.34
	urban public	.99*	0.24	0,000	0.43	1.57
rural public school	urban private	-.77*	0.24	0.000	-1.34	-0.21
	urban public	0.22	0.24	0.630	-0.35	0.8
urban public school	urban private	-.99*	0.24	0.000	-1.57	-0.43
	rural public	-0.22	0.24	0.630	-0.8	0.35

* the difference in means is significant at the 0.050 level

Source: Authors' own study.

This analysis explores the linear relationships between different pedagogical practices and the perceived climate in schools, with a particular focus on how this climate may foster students' ideas about their future careers (Table 3). The objective of the correlation analysis was to identify the interrelationship between pedagogical practices and the perceived school climate. This analysis addressed the research question concerning the primary factors that shape the school climate. Correlation coefficients were calculated to assess the strength and direction of the relationship between the variables. In this Table, variables 1–4 refer to various pedagogical practices, such as teacher support and encouraging questions. The subsequent three (5–7) reflect perceptions of the school climate, including students' preparation for future careers and the inspiring influence of the school environment on the development of their aspirations.

First, a significant positive correlation was found between teachers' encouragement of students to ask questions and the school climate inspiring the development of career ideas ($r = 0.64$, $p < 0.010$). This suggests that students who feel encouraged to ask questions perceive the school environment as more conducive to thinking about their future careers. This factor can be described as: encouragement to ask questions.

The data also revealed a significant positive correlation ($r = 0.60$, $p < 0.010$) between teachers' efforts to understand students' perspectives and an inspiring school climate. This suggests that teachers' understanding and empathy are associated with a school climate that students find motivating. This factor can be called: understanding students' perspectives. Furthermore, there was a significant positive correlation between teachers' focus on important issues related to students' development and perceptions of an inspiring school climate ($r = 0.584$, $p < 0.010$).

This suggests that teachers' recognition and reinforcement of key elements of professional development is associated with a stimulating educational environment. This can be described as "paying attention to the important things".

Table 3.
Correlation matrix between the study variables

	Different pedagogical practices				Perceived climate in schools		
	1	2	3	4	5	6	7
1. Teachers encourage me to ask questions		.59**	.58**	.43**	.53**	.64**	.50**
Stat. Significance		0.000	0.000	0.000	0.000	0.000	0.000
2. Teachers try to understand my point of view	.59**		.54**	.43**	.49**	.60**	.36**
Stat. Significance	0.000		0.000	0.000	0.000	0.000	0.000
3. Teachers pay attention to important things and grade me for them	.58**	.54**		.65**	.48**	.58**	.54**
Stat. Significance	0.000	0.000		0.000	0.0000	0.000	0.000
4. Teachers compliment me when I do something well	.43**	.43**	.65**		.38**	.55**	.50**
Stat. Significance	0.000	0.000	0.000		0.000	0.000	0.000
5. The school prepares me well for future work	.52**	.48**	.48**	.38**		.70**	.59**
Stat. Significance	0.000	0.000	0.000	0.000		0.000	0.000
6. The climate at the school inspires us to develop skills and ideas for our future careers	.64**	.60**	.58**	.55**	.70**		.78**
Stat. Significance	0.000	0.000	0.000	0.000	0.000		0.000
7. Teachers pay attention to show us the things we need in our future career	.50**	.36**	.54**	.50**	.59**	.78**	
Stat. Significance	0.000	0.000	0.000	0.000	0.000	0.000	

* correlation is significant at the 0.050 level
** correlation is significant at the 0.010 level

Source: Authors' own study.

Teachers' compliments when students perform well and appreciation of students' work were positively correlated ($r = 0.55$, $p < 0.010$) with the school climate inspiring students for future career development. This suggests that positive support is related to the perception of an encouraging learning climate. This factor can be called positive reinforcement.

There was a highly significant correlation ($r = 0.70$, $p < 0.010$) between the school's role in preparing students for future work and an inspiring school climate. This is the strongest correlation observed in the analysis, suggesting that preparing students for the challenges of the future is closely linked to the motivational quality of the school environment. This could be described as a focus on preparing for the future.

The strongest correlation in the data set ($r = 0.78$, $p < 0.010$) was between teachers showing students the things they need for their future careers and the school climate inspiring career ideas. This shows that when teachers focus on providing career-related knowledge and skills, students feel significantly inspired to think proactively about their career futures. This factor can be termed "attention to future career skills".

These findings highlight the integral role of teachers and the school environment in shaping students' perceptions and inspiration about their future careers. The results also suggest that a multifaceted approach, including encouragement, understanding, attention to detail, positive feedback and career preparation, is crucial in creating a climate that is perceived by students as inspiring and supportive of their developmental aspirations.

As a result of a broader analysis of the correlation matrix, several other nuanced connections between pedagogical practices also emerge, providing a more detailed understanding of the pedagogical dynamics that contribute to a developmentally supportive school climate. These links suggest a coherent pedagogical approach that has a positive impact on pupils.

There were significant correlations between teacher behaviours such as encouraging questions, understanding students' perspectives, focusing on important issues and valuing students. These correlations (ranging from $r = 0.43$ to $r = 0.65$, all $p < 0.010$) may indicate that a consistent and holistic pedagogical approach promotes a positive learning experience for students. This can be seen as: consistent links between teacher behaviours and attitudes.

A significant correlation was observed between teacher praise and school effectiveness in preparing students for future work ($r = 0.38$, $p < 0.010$). This suggests that positive reinforcement may be an important element in building students' confidence for their future careers. This suggests a close relationship between recognition and developmental readiness.

The correlation between how well the school prepares students for their future work and teachers' attention to vocational skills ($r = 0.59$, $p < 0.010$) suggests that

students perceive these two aspects as interrelated. This may mean that students feel more confident about their future careers if they are educated in a way that they perceive as practical and directly related to the realities of the workplace. This demonstrates preparation for work and concern for future employability.

The significant correlation between positive reinforcement from teachers (through compliments and appreciation of work) and a school climate that inspires career ideas ($r = 0.55$, $p < 0.010$) suggests that students who receive positive feedback are more likely to be inspired to plan and develop their careers. This relationship can be interpreted as self-esteem enhancement and career inspiration.

The combined results suggest that students perceive comprehensive pedagogical support – including encouragement for engagement, understanding, promotion of achievement and career preparation – as key to creating a climate conducive to career inspiration. This shows that comprehensive support is strongly related to career inspiration.

The correlation matrix shows that different aspects of teacher-student interaction and the school environment form a coherent support system that underpins student development. Students who perceive a supportive attitude from teachers across multiple dimensions tend to perceive the school climate as more inspiring for career development.

DISCUSSION

A review of the survey data reveals notable disparities in the perception of school climate between students enrolled in public schools and those from public schools, both in urban and rural settings. Students from public schools perceive the school climate to be more inspiring and supportive of the development of career aspirations. This may indicate that public schools implement educational practices or shape an environment that is more conducive to a pro-professional educational orientation. Such differences may be attributed to a number of factors, including differing models of school organisation, the availability of resources and the capacity to personalise pedagogical approaches in public schools, which is often constrained in public institutions.

The existing literature on school environments indicates that the structure of educational institutions and their governance model can have a significant impact on students' developmental experiences and on their educational outcomes and aspirations (Cohen et al., 2009; Thapa et al., 2013). In the context of public schools, which are typically characterised by smaller classes, higher levels of individualised learning and a greater emphasis on emotional and pedagogical support, an environment is created that is more conducive to the development of a positive atmosphere and the shaping of career aspirations. The aforementioned characteristics of

private institutions can result in students demonstrating a greater motivation to develop non-vocational skills, which in turn can foster their readiness for professional challenges in the future.

Nevertheless, the constraints of a comparative analysis of school type, which is based on students' subjective evaluations of school climate, must be acknowledged. It is possible that students' subjective perceptions may be distorted by a number of factors, including their individual preferences, the socio-economic environment in which they live, and the influence of their family. These factors may affect their perception of the school as a supportive institution for their development. A larger and more diverse sample, which would include a larger number of private and public institutions, could provide further insight into these findings, taking into account both subjective and objective aspects of school climate. In the context of further research, it would be particularly relevant to explore which specific practices used in public schools can be implemented in public schools to support students' career aspirations, without requiring radical changes in the institutional structure of public schools.

Examining the role of teacher practices in shaping school climate, the results of the study indicate a strong positive correlation between teachers' specific teaching practices and students' perceptions of school climate. Teachers who encourage students to ask questions, demonstrate empathy, and value their achievements have been found to significantly influence students' perceptions of the school climate as supportive and inspiring for professional development. The robust correlation between these teacher behaviours and positive perceptions of climate underscores the pivotal role that teacher-student interactions play in fostering an environment that is conducive to students' motivation and career aspirations.

The existing literature on education and student motivation has long emphasised the importance of teacher support as a motivational and self-esteem-enhancing factor for students (Bandura, 1993; Dweck, 2007). It has been established that teachers who demonstrate empathy and interest in the student perspective are able to facilitate the creation of an exploratory environment in which students feel safe and supported. Our research provides further evidence to support these findings, demonstrating that particular teaching practices can directly contribute to the establishment of a pro-professional school climate, which is crucial for equipping students with the necessary skills to navigate future professional challenges.

It can be concluded from the results presented here that teaching practices can be an effective instrument for the creation of an environment conducive to the development of career aspirations. In terms of practical recommendations, it would be worthwhile to consider the implementation of teacher training programmes that focus on developing empathy, fostering openness to students' questions and enhancing the ability to constructively appreciate their achievements. This kind of training could markedly improve the quality of the school climate, particularly in public institutions where this approach may not be widely used.

It is important to note, however, that despite the clear results indicating a positive impact of teacher practices, the study is limited to an analysis of students' subjective perceptions, which may not reflect the objective effectiveness of these practices. Further research could include an evaluation of teacher practices by external observers, which would facilitate a more objective analysis of the impact of these behaviours on school climate and student development. The inclusion of such data could also serve as a benchmark for improving teacher professional development programmes, helping to create a more supportive school climate.

Exploring Career Preparation as a Component of School Climate This study shows that students' career motivation is strongly influenced by a school climate that integrates elements of career preparation. It is notable that public schools foster a more inspiring climate, potentially due to their structured focus on developing career-oriented skills and providing guidance. It would be beneficial for public schools to implement similar practices with the aim of enhancing career readiness, fostering a climate that aligns with students' aspirations.

The incorporation of career readiness practices, including time management, communication, and problem-solving courses, would equip students with practical skills while simultaneously fostering an inspiring educational atmosphere. Teacher-led initiatives that focus on real-world applications and career pathways may prove an effective means of further reducing the perceived gap in climate across different types of school. The integration of career-related discussions into standard classes may assist students in establishing a connection between their education and their future career aspirations. In alignment with the existing literature on 21st-century skills (DiBenedetto, 2019; Koehorst et al., 2021), these findings emphasise the significance of incorporating career skills into the curriculum. By aligning vocational preparation programmes from private to public schools, a supportive climate for equal career readiness can be more broadly achieved.

The research findings permit the formulation of implications for educational policy and teacher training. The results demonstrate that the school climate in public schools is more conducive to students' career aspirations than in public schools, indicating a necessity to implement similar practices in public schools. As part of education policy, it would be useful to consider measures that support students' professional development and encourage teachers to create a pro-professional school climate. One example would be the introduction of teacher training programmes that focus on developing skills in empathic communication, emotional support and promoting students' professional development. Such training could strengthen teachers' competencies in creating an atmosphere conducive to students' aspirations, which is particularly relevant in the context of public schools where these approaches are less common.

Introducing these changes could not only reduce differences in perceptions of school climate between different types of school, but also contribute to more equitable professional development for students. In the long term, such reforms could make the education system more responsive to the demands of the modern labour market, while supporting students' professional and educational development.

CONCLUSIONS

Our research indicates that teachers' attitudes and behaviour are responsible for the school climate, which is oriented towards the development of pupils' skills and future careers. Our findings are significant in that we obtained these opinions from students in different types of schools. Our survey was designed to balance the opinions of students from each type of school, so that no differentiating characteristics of the schools surveyed affected the final outcome of the survey. Consequently, regardless of the location of the school, the environment in which it operates, or its legal or financial status, the students surveyed clearly indicated that it was the teachers and their attitudes that were responsible for the pro-development climate of the school. In this respect, the type of school and its environment alone are not relevant factors from the perspective of creating a pro-development climate for students.

It is evident that school climate is not the sole or most significant factor influencing future career success. However, theoretical concepts and research results indicate that school climate plays a pivotal role in students' development, particularly in relation to future professional work (Wang and Degol, 2016; Frey and Osborne, 2017). Furthermore, the school climate can stimulate or inhibit this development and thus negatively influence students' attitudes and behaviour now and in the future (Syahril and Hadiyanto, 2018; Wulan and Sanjaya, 2022).

The findings of the study indicate that there is a symbiotic relationship between diverse pedagogical practices and the creation of an inspiring school climate. Pupils' perceptions of being encouraged to participate, of teachers' empathic understanding and of receiving positive feedback are significantly correlated with an educational environment that fosters development. In addition, preparation for future work and teachers' focus on providing work-related skills are strongly associated with students' sense of motivation to develop career aspirations.

Given the noticeable impact of purposeful pedagogical practices on the educational climate and student development, it is recommended that educational institutions, especially public schools, adopt and integrate such practices into their curricula and teacher training programmes. Such integration could potentially bridge the identified gap between the climates of public and private schools.

For those engaged in policymaking and educational leadership, these findings suggest the necessity for policy reforms that emphasise a holistic approach

to teacher-student interactions. Policies should support learning environments that not only prepare students academically, but also focus on their overall developmental readiness for future career challenges. There is evidence to support the allocation and targeting of resources towards the professional development of teachers to enable them to create a supportive and inspiring climate for learning. Research indicates that by influencing teacher behaviour and attitudes, public schools can also provide a supportive environment for student development similar to that in private institutions.

STUDY LIMITATIONS

Although the study provided valuable findings, some limitations that may affect the generalisability of the results must be taken into account. First of all, the survey was based on a limited sample of three types of schools (urban public, rural public and private), which limits its representativeness in the context of the wider education system. Future surveys should include a more diverse sample, including schools with different profiles and from different regions, to increase the generalisability of the results.

Another limitation is the self-reporting nature of the data, based on students' subjective assessments of school climate and teacher support. The subjectivity of these assessments may be distorted by students' individual characteristics, family environment or previous school experiences. Future research could use observational methods or longitudinal studies to obtain more objective and detailed data about the dynamics of school climate and the impact of teacher-student interactions on students' professional development. Such an approach could also help to better understand the causal relationships between teacher support and perceptions of school climate, thus expanding the body of knowledge about the role of school climate in student development.

Extending the research to different educational levels and age groups would enable an assessment of whether the observed results hold across wider groups, and would allow the changing perception of school climate as students' career aspirations develop to be explored.

ETHICAL STATEMENT

Students from schools involved in the research and education project took part in the study. Each participant had the consent of the school and parents to participate in the project and the evaluation study. Participation was voluntary. Informed written consent was obtained from the parents or guardians of each participant

in the study. Anyone could withdraw their consent without giving a reason. The study was anonymous and signed consent forms were only available to the support services at each university. Each participant also had parental consent for the processing of their personal data, in accordance with Article 6 of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (General Data Protection Regulation). All research procedures were in accordance with the Code of Good Practice in Higher Education Institutions developed by the Polish Rectors' Foundation and adopted by the Plenary Meeting of the Conference of Rectors of Academic Schools in Poland (CRASP) on 26 April 2007, as well as the Ethical Standards of the Krakow University of Economics adopted by the Senate Resolution (No. 38/2011). All participants, as well as schools and parents, were provided with comprehensive information about the study, including details of its scope, subject matter, and the right to refuse to answer questions.

REFERENCES

Acemoglu, D., Restrepo, P. (2022). Tasks, automation, and the rise in U.S. wage inequality. *Econometrica*, *90*, 1973–2016. https://doi.org/10.3982/ECTA19815

Afzal, D., Rafiq, S., Kanwal, A. (2023). The influence of teacher-student relationships on students' academic achievement at university level. *Gomal University Journal of Research*, *39*(1), 55–68. https://doi.org/10.51380/gujr-39-01-06

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, *28*(2), 117–148. https://doi.org/10.1207/s15326985ep2802_3

Blalock, H.M. (1979). *Social Statistics* (II). McGraw-Hill.

Cohen, J., McCabe, Michelli, N., Pickeral, N.M. (2009). School climate: Research, policy, teacher education and practice. *Teachers College Record*, *111*, 180–213. https://doi.org/10.1177/016146810911100108

Creswell, J.W., Plano Clark, V.L. (2017). *Designing and Conducting Mixed Methods Research*. SAGE Publications. Retrieved 1, October, 2024 from: https://us.sagepub.com/en-us/nam/designing-and-conducting-mixed-methods-research/book241842

Darling, N. (2007). Ecological systems theory: The Person in the center of the circles. *Research in Human Development*, *4*, 203–217. https://doi.org/10.1080/15427600701663023

DiBenedetto, C.A. (2019). Twenty-first century skills. In S. McGrath, M. Mulder, J. Papier, R. Suart (Eds.), *Handbook of Vocational Education and Training: Developments in the Changing World of Work* (pp. 1267–1281). Springer International Publishing. https://doi.org/10.1007/978-3-319-94532-3_72

Dweck, C.S. (2007). *Mindset: The New Psychology of Success*. Ballantine Books.

Ettekal, A., Mahoney, J. (2017). Ecological systems theory. In K. Peppler (Ed.), *The SAGE Encyclopedia of Out-of-School Learning* (pp. 239–241). SAGE. https://doi.org/10.4135/9781483385198.n94

Eysenck, M.W., Groome, D. (2015). *Cognitive Psychology: Revisiting the Classic Studies*. SAGE.

Frey, C.B., Osborne, M.A. (2017). The future of employment: How susceptible are jobs to computerisation? *Technological Forecasting and Social Change*, *114*, 254–280. https://doi.org/10.1016/j.techfore.2016.08.019

Goleman, D. (2006). *Social Intelligence: The New Science of Human Relationships*. Bantam Books.

Goleman, D., Boyatzis, R., McKee, A. (2002). *Primal Leadership: Realizing the Power of Emotional Intelligence*. Harvard Business School Press.

Hanushek, E.A., Woessmann, L. (2007). The role of education quality for economic growth. *World Bank Policy Research Working Paper*, *4122*.

Higgins, S., Hall, E., Wall, K., Woolner, P., McCaughey, C. (2005). *The Impact of School Environments: A Literature Review*. The Centre for Learning and Teaching-School Education, Communication and Language Science. University of Newcastle.

Koehorst, M.M., van Deursen, A.J.A.M., van Dijk, J.A.G.M., de Haan, J. (2021). A systematic literature review of organizational factors influencing 21st-century skills. *SAGE Open*, *11*(4), 21582440211067251. https://doi.org/10.1177/21582440211067251

Leonard, J. (2011). Using Bronfenbrenner's ecological theory to understand community partnerships: A historical case study of one urban high school. *Urban Education*, *46*(5), 987–1010. https://doi.org/10.1177/0042085911400337

Lupien, S.J., McEwen, B.S., Gunnar, M.R., Heim, C. (2009). Effects of stress throughout the lifespan on the brain, behaviour and cognition. *Nature Reviews. Neuroscience*, *10*(6), 434–445. https://doi.org/10.1038/nrn2639

Martinsone, B., Di Sano, S., D'Elia, P., Salle-Finley, T. (2023). A conceptual framework for sustainable promotion of a positive school climate: Context, challenges, and solutions. *Journal of Teacher Education for Sustainability*, *25*, 64–85. https://doi.org/10.2478/jtes-2023-0005

Robinson, P. (2017). *Perspectives on the Sociology of Education: An Introduction*. Routledge.

Syahril, S., Hadiyanto, H. (2018). Improving school climate for better quality educational management. *Journal of Educational and Learning Studies*, *1*. https://doi.org/10.32698/0182

Thapa, A., Cohen, J., Guffey, S., Higgins-D'Alessandro, A. (2013). A Review of School Climate Research. *Review of Educational Research*, *83*(3), 357–385. https://doi.org/10.3102/0034654313483907

Tong, P., An, I.S. (2024). Review of studies applying Bronfenbrenner's bioecological theory in international and intercultural education research. *Frontiers in Psychology*, *14*, 1233925. https://doi.org/10.3389/fpsyg.2023.1233925

Wang, M.-T., Degol, J.L. (2016). School climate: A review of the construct, measurement, and impact on student outcomes. *Educational Psychology Review*, *28*(2), 315–352. https://doi.org/10.1007/s10648-015-9319-1

Weinstein, C.S. (1979). The physical environment of the school: A review of the research. *Review of Educational Research*, *49*(4), 577–610. https://doi.org/10.2307/1169986

Wulan, R., Sanjaya, W. (2022). Developing positive school climate for inclusive education. *Journal of Education for Sustainability and Diversity*, *1*(1), Article 1. https://doi.org/10.57142/jesd.v1i1.6

Zynuddin, S.N., Kenayathulla, H.B., Sumintono, B. (2023). The relationship between school climate and students' non-cognitive skills: A systematic literature review. *Heliyon*, *9*(4), e14773. https://doi.org/10.1016/j.heliyon.2023.e14773

ZNACZENIE KLIMATU SZKOLNEGO DLA ROZWOJU UCZNIÓW ORAZ ANALIZA JEGO DETERMINANTÓW W SYSTEMIE EDUKACJI NIESKONCENTROWANYM NA UMIEJĘTNOŚCIACH

Wprowadzenie: Artykuł analizuje różnice między klimatem rozwojowym i zorientowanym na karierę uczniów w różnych typach szkół. Analiza teoretyczna integruje teorie psychologiczne, socjologiczne, neuronaukowe i edukacyjne, aby wykazać, że klimat szkoły jest ważnym czynnikiem wpływającym na przyszły sukces zawodowy uczniów.
Cel badań: Głównym celem artykułu jest przedstawienie klimatu szkolnego jako kluczowego czynnika wpływającego na wszechstronny rozwój uczniów oraz podkreślenie roli klimatu w kontekście ich przyszłego funkcjonowania zawodowego.
Metoda badań: Badanie przeprowadzono wśród uczniów ostatnich klas szkoły podstawowej w trzech różnych typach szkół. Do analizy wykorzystano analizę ilościową (ANOVA i korelacja Spearmana).
Wyniki: Badanie pokazuje, że klimat szkoły jest czynnikiem, który najbardziej różnicuje szkoły prywatne i publiczne. Badanie pokazuje również kluczową rolę nauczycieli i klimatu szkoły w kształtowaniu postaw i zachowań uczniów oraz we wzmacnianiu aspiracji uczniów dotyczących ich przyszłej kariery. Wyniki badania podkreślają możliwość tworzenia różnych bodźców rozwojowych w ramach tego samego systemu edukacji, pokazując, że efektywność systemu można zwiększyć poprzez stopniowe zmiany, a nie tylko poprzez zmiany systemowe.
Wnioski: W artykule zaproponowano wdrożenie polityki edukacyjnej, która przyjmuje holistyczne podejście do edukacji, dostosowując strategie pedagogiczne do celu, jakim jest zwiększenie gotowości i aspiracji zawodowych uczniów.

Słowa kluczowe: polityka edukacyjna, rozwój uczniów, system edukacji nie skoncentrowany na umiejętnościach, klimat szkoły