Article

Leadership Styles, Organizational Climate, and School Climate Openness from the Perspective of Slovak Vocational School Teachers

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Abstract: The aim of the proposed study is to present the partial results of a research study on the organizational climate in vocational schools as perceived by teachers. Special attention is paid to the applied leadership style by school leaders, and the existence of associations between school leaders' and teachers' behaviour in schools. Organizational climate was measured by the standardized OCDQ-RS adapted to the conditions of the Slovak educational environment on the sample of 474 vocational schoolteachers. The scale measures five dimensions: Supportive principal behaviour; Directive principal behaviour; Engaged teacher behaviour; Frustrated teacher behaviour; and Intimate teacher behaviour, allowing for calculation of the Index of school climate openness, which is an indicator of the quality of the organizational climate. The obtained results confirmed the existence of associations between teacher and principal behaviour and school climate openness. It can be assumed that the applied leadership style in an institution can affect the quality of interpersonal relationships and teacher behaviour both in positive and negative directions. Therefore, it is important to pay attention to building favourable organizational climate in schools, which represents a challenge for school leaders and educational systems that should provide school leaders with sufficient learning opportunities in the field of school leadership.

Keywords: leadership style; school leader; organizational climate; school climate openness; vocational schoolteachers

1. Introduction

Educational leadership refers to a wide concept, within which a learning community is being built [1], and which can be characterized as specific tendencies to act or typical behaviour of a school leader [2], including all processes applied to meet the educational institution's goals [3]. As emphasized by Cuban [4], Day et al. [5], Bush [6], Leithwood et al. [7], and others, it is important to distinguish between educational leadership and management, but on the other hand, both have an important role to play depending on the particular context. While leadership leads to positive changes in schools and achieving goals, management is focused on maintaining the current situation. In order to provide high quality education, school leaders should focus on cultivating a positive organizational climate within the institution, creating favourable conditions for teachers' educational work, and promoting teachers' personal and professional growth. Drysdale and Gurr [8] identified the following seven domains of successful educational leadership: 1. understanding the context; 2. setting direction; 3. developing the organization; 4. developing people; 5. improving teaching and learning; 6. influencing; and 7. leading self.

1.1. School Organizational Climate

Undeniably, the organizational climate has a significant impact on the success or failure of an organization, which is also accentuated by Khun-Inkeeree et al. [9]. Organizational climate can be characterized based on the quality of relationships and interactions within the institution [2] and is defined by shared perceptions of behaviour [10]. It reflects how people feel in the institution. From the employees' point of view, school leaders' capacity to solve problems and conflicts, as well as their ability to engage in a constructive dialogue, and to listen to others' opinions and to accept them are important. Kapa and Gimbert [11] claim that a school's organizational climate represents an important element from the aspect of students' performance.

In this study, we operate with the term school climate openness. Hoy [10] points out that patterns of school leader and teacher behaviours vary and school climates range from open to closed. He characterized open school climate as one in which teacher and principal behaviour is supportive, genuine, and engaged, and in which teachers are committed, loyal, and satisfied. On the other end of the continuum, in schools with a closed climate, there is a lack of authenticity, game playing, and disengaged behaviour.

As it follows from the above, relationships are among the determinants of schools' organizational climate. The quality of typical relationships within an institution can be considered a relatively long-term characteristic [2]. It must be highlighted that evaluations of the relationships' quality by employees are always subjective and given by individual stakeholders' experiences [12]. As being a subjectively perceived characteristic, although one teacher perceives the quality of interactions and of the overall organizational climate as positive, from another teachers' point of view, they can be unfavourable.

A positive organizational climate can provide comfort within the entire organization, positively affecting teachers' work and all employees' performance. This, in turn, can make achieving organizational goals easier [13]. Therefore, from the aspect of schools' healthy functioning, it is important to create such physical and social environments within institutions, in which subjectively positively perceived phenomena prevail and in which teachers evaluate their working experience as positive. The significance of a positive working experience—which is closely related to job satisfaction and work engagement—is pointed out by Affolter [14] as well.

Obdržálek, Horváthová et al. [2] observed diversity in the following fields of organizational climate in schools:

- leadership style applied by school managers;
- organization of activities (creating an organizational structure);
- relationships between the school leader and the teaching staff;
- relationships between teachers;
- the quality of the relationship between the school and its external environment.

In this study, we focus on the fields of principal behaviour, teacher behaviour and the quality of relationships between teachers in the context of a school's organizational climate.

1.2. Factors Affecting School Organizational Climate

1.2.1. School Culture

School organizational climate is impacted by school culture, which is defined by shared values, assumptions [10], and beliefs. According to Bush [15], school culture also strongly influences leadership enactment, but, as pointed out by Hallinger and Heck [16], leaders alone do not make effective schools, but they can do a lot by shaping school culture. As suggested by Dolph [17], modern school leaders should support teachers instructionally, build culture, and facilitate change. Building school culture is especially important as it can be critical from the aspect of a school's success [18]. Even though the full responsibility for school culture cannot be placed on school leaders, they can set a tone for positive school culture [19].

1.2.2. Teacher Job Satisfaction

Organizational climate—being a relatively durable quality that teachers experience based on their collective perceptions [20]—has an impact on teachers' behaviour, on their attitudes towards the job they perform, on the quality of their performance, and it can be considered one of the predictors of teachers' job satisfaction [9,13]. In other words, to achieve high levels of job satisfaction in teachers, the school organizational climate must be at a level that provides maximum satisfaction to the organization [9]. Ulich and Wülser [21] define job satisfaction as an individual's short-term positive reaction to the perception of several job characteristics, considering the individual's needs.

It is generally accepted that favourable, positive, stimulating, and motivating work environments providing teachers with space for professional and personal development, and self-realization, contribute to their life satisfaction, as well as job satisfaction. Moreover, as Stapleton, Garby, and Sabot [22] claim, job satisfaction and life satisfaction are associated with subjectively experienced happiness, and in the context of the teaching profession, a link between lower degrees of life satisfaction and happiness on one hand and the occurrence of increased levels of stress and burnout effect on the other hand exists.

Job satisfaction is the result of individuals' subjective experience influenced by a wide range of factors, which are not necessarily connected with performing their job. It means that the same working conditions do not necessarily result in the same level of job satisfaction in two different persons. Krásna, Geršicová, and Tamášová [23] extended the above description and defined job satisfaction as individuals' subjective opinions determined by the perceived extent of meeting their requirements, ideas, and expectations at work in various situations, activities, or in relationships connected with them.

Considering the above definitions of job satisfaction, the following three basic characteristics can be listed: (a) job satisfaction reflects individuals' subjective experiencing, their evaluation of conditions and circumstances, and whether it is a personal positive (satisfaction) or negative (dissatisfaction) attunement ranging on a scale between these two values; (b) it can be an emotion or an attitude, as it forms a part of an individual's personal equipment; and (c) it is strongly determined by the social context [23].

1.2.3. Leadership Style

In the context of the topic of educational leadership and shaping organizational climate, leadership styles applied in schools are decisive. It is generally accepted that the applied leadership style in an institution can affect the quality of interpersonal relationships and teacher behaviour both in positive and negative directions, but still, it is not specified which leadership style leads to the best possible outcomes.

Leadership styles can be categorized, e.g., according to the level of teachers' participation in decision making into authoritarian, democratic, and liberal leadership styles; or from another aspect, into rational leadership, leadership building on human relationships, post-modern leadership, and integrated leadership [13]. Bush [24] describes the eight most frequently applied leadership models: 1. Managerial leadership—rational leadership focused rather on maintaining functioning than initiating change or introducing innovations; 2. Transformational leadership—a normative approach to school leadership focused on the process of influencing school outcomes by the leader and the leaders' power; 3. Participative leadership—democratic leadership style that allows all stakeholders' participation in decision making processes; 4. Political and transactional leadership where two factors are decisive: (a) school leaders' power given by their status; and (b) exchange processes ensuring benefits for both the leader and other stakeholders; 5. Post-modern leadership characterised by respecting diversity and the right "to be heard"; 6. Moral leadership with values, beliefs, and ethics of leaders as the centre of attention; 7. Instructional leadership—focused on the direction of influence, targeting teaching and learning; and 8. Contingent leadership—an alternative approach allowing adapting the applied leadership style to the particular context, in which a school works, or to a specific situation.

Obdržálek's [25] classification into directive and cooperative leadership styles is interesting. These are reflected in all processes within an educational institution, including setting goals; specifying procedures to be applied; providing space for innovations in order to increase the quality of educational services; all levels of planning; decision making, in which all members of the community should be involved; taking over responsibility by these community members; organizing (realization) of processes; human resources; and control. Whereas directive leadership relates to transformational leadership as defined by Bush [6], Leithwood et al. [7], or Caldwell and Spinks [26], cooperative leadership relates to participative leadership described by Bush [6] and Leithwood et al. [27].

Leadership is an important factor in creating an organizational climate [28] and has an impact on teachers' job satisfaction [13]. It plays an important role from the aspect of the quality of their performance as well. Furthermore Hallinger and Heck's [16] findings confirm that leadership in schools influences school effectiveness. Moreover, in each institution, communication, collaboration, and coordination are important.

The results of TALIS 2018 [29] showed that in Slovakia, 77% of teachers (the same value as the OECD average) indicated that they were provided with opportunities to take part in decision making.

1.2.4. Teachers' Approach and Work Engagement

Schaufeli and Bakker [30] define work engagement as a positive and fulfilling state of mind characterized by vigour, dedication, and absorption. According to Kärner et al. [31], it is a long-term characteristic.

Teachers' approach to their work is influenced by their attitudes towards the teaching profession. Timms and Brough's [32] research study confirmed that career satisfaction is a significant predictor of work engagement. It can be explained by teachers' aspirations and needs being reflected in their choice of career and their satisfaction with that choice, which is in line with Shaver and Lacey's [33] findings. Therefore, it can be assumed that a teacher's positive attitudes towards the teaching profession and considering the selection of the teaching career a good choice result in a responsible approach to work, in searching new methods and procedures that can contribute to increasing the quality of the educational process, to teachers' creativity and their efforts made to develop positive relationships with colleagues, students, and students' parents. Furthermore, continuous development of knowledge, skills, and competencies, and taking part in activities of further education are expected from teachers. As summarized by Timms and Brough [32], work engagement is associated with greater work contentment, input, and productivity.

Teachers' approach to work, their work engagement, as well as their willingness to stay in one school or the decision to leave the teaching profession [34] are influenced by the degree of their exhaustion and their overall tiredness. Exhausted teachers are disengaged [35], permanently tired at work, lose motivation, have no interest in innovations, stop participating in school life, etc. Therefore, it can be assumed that teacher exhaustion is one of the factors that can have a negative effect on a school's organizational climate and can also influence students' performance. Teachers' exhaustion can lead to high fluctuation in the teaching staff and to a situation when, due to the existing shortage of teachers, the school leader is not able to ensure qualified teachers for all school subjects. Subsequently, it can result in teacher overload caused by supplementing lessons not covered, and also in students' and their parents' dissatisfaction, etc.

Teacher autonomy is another field that deserves attention as teachers' autonomy increases their work engagement and decreases the probability of leaving the school [36]. It provides teachers with high degrees of freedom and allows them to experiment and introduce innovations, which can increase the quality of the educational process, but also contribute to teachers' job satisfaction and the feeling of fulfilment. In the Slovak Republic, 87% of teachers participating in a TALIS 2018 [29] survey reported that they have freedom in developing educational content for their classes, which is a higher value than

the OECD average (84%). Alongside with that, these teachers—when compared with their colleagues—characterized their work environment as innovative more frequently.

1.2.5. Interpersonal Relationships

In general, social relationships can be characterized as dynamic and easily influenced by external factors and personal characteristics of individual stakeholders. Therefore, creating a collective of teachers, within which positive relationships prevail, is extremely difficult. As in any work environment, individuals with a broad spectre of personalities are also employed in schools and not all of them contribute to developing positive professional relationships in the workplace and a positive social climate.

For school leaders, it is always a challenge to create such teams that—despite the diversity of their members—can communicate both inside and with their external environment, and are able to collaborate and support each other [37]. Collaboration also forms a solid basis for creating space for innovative and effective processes. From the aspect of innovations, a creative school climate can be considered among the basic preconditions for their introduction. At the same time, it is important to emphasize that the idea of introducing any kind of innovations in a school must be supported by other teachers and the school management as well. Within the TALIS 2018 survey [38], 81% of respondents from Slovakia—similar to the OECD average—reported that their school's culture can be characterized as collaborative and supportive. The majority of teachers indicated that they perceive their colleagues and their school climate as open to innovations. In total, 83% of them reported that in Slovak schools, teachers provide each other with support when introducing innovative ideas, which is a higher value than the OECD average (78%).

Based on the above, a clear link between leadership, organizational climate, and the success of (vocational) schools' educational work can be outlined. School leaders' personalities and their work, their approach to teachers, non-teaching staff, students, and students' parents have an impact on the organizational climate of the particular educational institution and affect how teachers feel and behave both inside and outside the school in educational contexts. Teachers' satisfaction at work, their attitudes and opinions, things and emotions they experience in the school, their work engagement, and the overall quality of the organizational climate are reflected in their everyday educational work in the classroom and subsequently, in their students' performance. Therefore, these phenomena deserve more attention in the context of the reality of vocational schools in Slovakia, where research activities are mostly focused on the field of the relationship between schools and the labour market, but not much space is given to other factors affecting vocational school students' future employability. The purpose of the presented research study was to investigate the organizational climate in vocational schools with the aim of finding out about the associations between the applied leadership style and teacher behaviour typical for a particular educational institution.

Since the research study was focused on the organizational climate of vocational schools as perceived by teachers and the associations between principal behaviour (leadership), teacher behaviour (job satisfaction, work engagement, and interpersonal relationships) and their impact on school climate openness, we calculated intercorrelations between the five dimensions of the OCDQ-RS and the Index of school climate openness.

2. Current Study

Considering the conditions of the Slovak school system, an investigation into organizational climate was carried out by the National Institute for Certified Educational Measurements [39] on a sample of primary school and secondary grammar schoolteachers, which was similar to Gavora and Braunová's [40] research, whose sample consisted of primary and secondary school teachers as well. As a reaction to a lack of relevant data on the situation in the field of teachers' perception of the organizational climate in vocational schools in the Slovak Republic, the aim of the study is to present the partial results of a research project under realization and to fill the gap in the field of available information

regarding the role of applied leadership styles in vocational schools and their effect on teachers' behaviour.

2.1. Vocational Education and Training in Slovakia

2.1.1. Vocational Schools

In Slovakia, vocational education and training (VET) is delivered by (secondary) vocational schools (stredná odborná škola) providing mainly upper secondary VET (ISCED 3; EQF 3, 4), but also lower secondary VET (ISCED 2; EQF 2-3), and post-secondary non-tertiary VET (ISCED 4, 5; EQF 4, 5). VET schools are regulated by legislation and the national curriculum based on which school curricula are worked out. VET programmes are organized as (a) school-based programmes with practical training in school workshops; (b) dual VET with in-company training based on contracts between schools, companies, and students (or their legal guardians); (c) a combination of the above, when an agreed share of practical training takes place in companies. The graduates of three-year VET programmes earn a certificate of apprenticeship and can continue their studies in a two-year programme and receive a school leaving certificate, allowing them access to higher education. Depending on the extent of practical training, graduates of four- or five-year programmes receive either a school leaving certificate or a school leaving certificate and a certificate of apprenticeship [41].

Even though there is a broad variety of VET programmes offered by 423 vocational schools in Slovakia and the dual VET introduced in the school year 2015/16 has made VET more attractive for students, vocational schools are usually not students' first choice. This makes it almost impossible to make a selection and vocational schools are often attended by poor performing students. In September 2021, 132,133 students were enrolled in vocational schools [42].

2.1.2. VET Teachers

In vocational schools, general subject teachers, vocational subject teachers, and trainers are employed. In the case of dual VET, in-company trainers (instructors) are responsible for students' practical training. General subject teachers and vocational subject teachers are the graduates of teacher training programmes. To obtain VET teacher qualification, vocational subject teachers, being the graduates of non-teaching study programmes, need to complete complementary teacher training programmes provided by universities. Trainers in VET schools must have upper secondary VET education at least, but they are often graduates of Bachelor's study programmes. In-company trainers are employed by organizations participating in the dual system of education and training; therefore, they are not considered pedagogical staff. They are required to have a certificate of apprenticeship, three-year working experience, and to complete an instructor training programme [41].

2.1.3. School Leadership in Vocational Schools—Organizational Structure

The most frequently applied organizational structure in vocational schools is displayed in Figures 1 and 2.
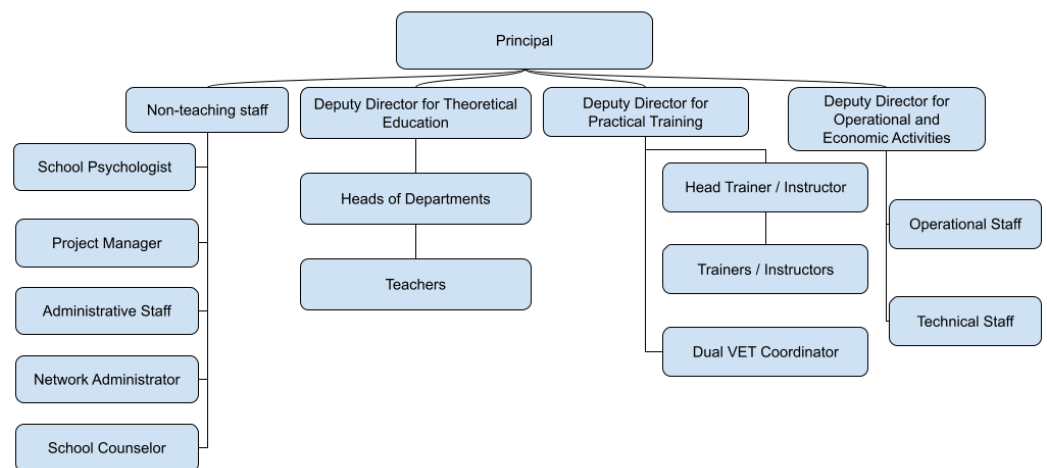
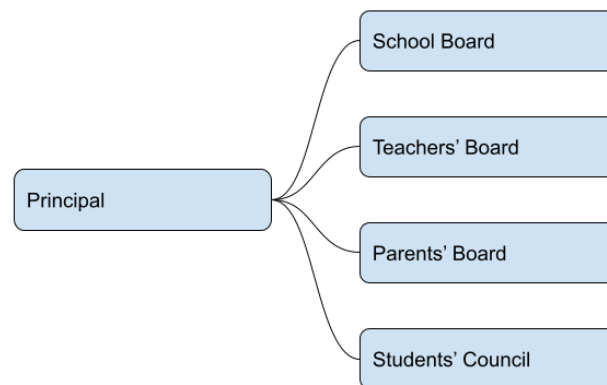**Figure 1.** Organizational scheme of vocational schools.

Figure 2. Principal's advisory bodies.

3. Methods

Within the international research project 'Educational Leadership and Organizational Climate' (grant number IGADTI02/2021), an investigation into perceived organizational climate in vocational school teachers was carried out in the Slovak Republic. In this research study, its partial results with a focus on the associations between five dimensions of the organization climate—Supportive principal behaviour and Directive principal behaviour associated with the applied leadership style; Engaged teacher behaviour and Frustrated teacher behaviour connected with teacher job satisfaction and their work engagement; and Intimate teacher behaviour as given by the quality of interpersonal relationships within the institution—and on the perceived Index of school climate openness calculated from the scores for four dimensions of the organizational climate (Supportive principal behaviour; Directive principal behaviour; Engaged teacher behaviour; and Frustrated teacher behaviour) are presented. The purpose of the presented research study is to fill in the gap in the field of knowledge concerning the quality of the organizational climate in vocational schools in Slovakia as perceived by teachers and to confirm the existence of associations between the leadership style applied in a school and typical teacher behaviour within the institution. Such information can help experts to develop training programmes for school leaders and teachers specifically addressing their needs in the discussed field, but can also contribute to improving the quality of vocational schools' educational work, and have a positive impact on students' performance and their future employability.

The main objectives of the presented study were to perform an exploratory factor analysis of the OCDQ-RS and to examine the existence of associations between the computed Index of school climate openness and the five dimensions of the OCDQ-RS. The first objective of the study was given by the fact that the presented investigation was carried

out during the pandemic crisis, which had a significant impact both on teachers' everyday educational work and also on the functioning and organization of schools, i.e., the conditions were different from those under which Gavora and Braunová's [40] research study was carried out.

As a research tool, the standardized OCDQ-RS, The Organizational Climate Description for Secondary Schools [43] by Hoy, Tarter, and Kottkamp [44,45], was used. There is a broad range of available research tools developed for various target groups examining school organizational climate with different compositions and lengths. When deciding to use the OCDQ-RS, its two main advantages were considered: 1. it was particularly designed for all types of secondary schools; and 2. it was adapted earlier to the Slovak conditions by Gavora and Braunová [40], which means that it was ready to use in Slovak vocational schools. The items in the Slovak-adapted version of the Scale were modified compared with the original version; two items were moved to other dimensions, new items were included in the dimensions, and the number of items in two dimensions changed (for a detailed description of the adaptation process, see Gavora and Braunová [40]). Even though the scale was developed to examine the organizational climate and school climate openness within individual secondary schools and to provide an opportunity to compare the perceived organizational climate and school climate openness between schools, within the presented research study, the scale was used to find out about the organizational climate in secondary schools as perceived by vocational school teachers countrywide as we were interested in the associations between principal and teacher behaviour.

In the OCDQ-RS consisting of 34 items and measuring five dimensions, Supportive principal behaviour (SPB), Directive principal behaviour (DPB), Engaged teacher behaviour (ETB), Frustrated teacher behaviour (FTB), and Intimate teacher behaviour (ITB), respondents are questioned about the frequency of certain phenomena's occurrence in their schools on 4-point Likert scales ranging from 1 = rarely occurs to 4 = very frequently occurs. The score for each dimension is calculated and subsequently, the Index of school climate openness can be computed as IO = (SPB + ETB) − (DPB + FTB).

The questionnaire was administered online. All subjects gave their informed consent for inclusion before they participated in the study. The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved by The Board for Internal System of Quality Assurance of DTI University, Slovakia, in compliance with the Code of Ethics of DTI University, Slovakia. The research sample consisted of 474 Slovak vocational school teachers. School leaders were not included in the sample as we were interested in the organizational climate as perceived by teachers and it can also be presumed that principals would evaluate their leadership style positively and so, their responses in the dimensions of Supportive principal behaviour and Directive principal behaviour could skew the results. In the research sample, all regions in Slovakia were represented.

Within the presented research study, following initial data processing, descriptive statistics were used. Further analysis was carried out in SPSS 22.00.

4. Results

The presented research study aimed to answer the following two research questions: 1. Can the factorial structure of the OCDQ-RS be confirmed on the sample of Slovak vocational school teachers?; and 2. Are there any associations between the computed score for the Index of school climate openness and the five dimensions of the OCDQ-RS? To answer the research questions, three hypotheses were formulated. In the first hypothesis (H1), the existence of an internal factorial structure of the OCDQ-RS was predicted. In the second hypothesis (H2), positive correlations between the computed Index of school climate openness and the dimensions of Engaged teacher behaviour, Supportive principal behaviour, and Intimate teacher behaviour, i.e., dimensions representing positive characteristics of schools, were presumed. In the third hypothesis (H3), negative correlations between the computed Index of school climate openness and the dimensions of Directive principal behaviour

and Frustrated teacher behaviour, i.e., dimensions representing negative characteristics of schools, were expected.

4.1. Factor Analysis

In the context of verifying hypothesis H1, regarding the existence of an internal factorial structure of the OQDC-RS, the existence of factors was methodically examined.

Within the taxonomy of the standardized OCDQ-RS scale's factorial structure, the existence of five factors was confirmed. Based on the results of the Kaiser-Meyer-Olkin test (0.776) and Bartlett's test (χ^2 = 0.786, significance level = 0.000), Varimax rotation was performed and five dimensions of the standardized OCDQ-RS methodic —Supportive principal behaviour (SPB), Directive principal behaviour (DPB), Engaged teacher behaviour (ETB), Frustrated teacher behaviour (FTB), and Intimate teacher behaviour (ITB)–were extracted. The extracted dimensions explain the 64.85% acceptable percentage of cumulative variance (see Tables 1 and 2).

Table 1. OCDQ-RS dimensions—extracted factors.

	Eigenvalues	% Variance	Cumulative %
Supportive principal behaviour SPB	5.698	13.172	33.430
Directive principal behaviour DPB	2.857	12.028	42.458
Engaged teacher behaviour ETB	6.389	17.258	17.258
Frustrated teacher behaviour FTB	1.894	11.401	53.859
Intimate teacher behaviour ITB	1.435	10.992	64.851

Table 2. Saturation of the extracted dimensions by the items of the OCDQ-RS.

	OCDQ-RS	SPB	DPB	ETB	FTB	ITB
1.	The mannerisms of teachers at this school are annoying.				0.652	
2.	Teachers are proud of their school.					0.834
3.	The principal sets an example by working hard himself/herself.	0.659				
4.	The principal compliments teachers.	0.534				
5.	Teacher–principal conferences are dominated by the principal.		0.31			
6.	Teachers are friendly with students.			0.752		
7.	The principal rules with an iron fist.		0.867			
8.	The principal monitors everything teachers do.		0.942			
9.	Administrative paper work is burdensome at this school.				0.893	
10.	Teachers help and support each other.			0.569		
11.	The principal is autocratic.		0.863			
12.	The morale of teachers is high.			0.734		
13.	Assigned non-teaching duties are excessive.			0.831		
14.	The principal goes out of his/her way to help teachers.	0.521				
15.	The principal explains his/her reason for criticism to teachers.	0.723				
16.	The principal is available after school to help teachers when assistance is needed.	0.638				
17.	Teachers socialize with each other on a regular basis.					0.862
18.	Teachers really enjoy working here.			0.637		
19.	The principal uses constructive criticism.	0.684				

Table 2. *Cont.*

	OCDQ-RS	SPB	DPB	ETB	FTB	ITB
20.	The principal supervises teachers closely.		0.861			
21.	Teachers respect the personal competence of their colleagues.			0.895		
22.	The principal takes action against the staff when being dissatisfied with something.		0.954			
23.	Teachers are not happy about some colleagues' behaviour.				0.647	
24.	Teachers tend to get excited about new ideas.			0.738		
25.	There is a feeling of collegiality among teachers.			0.634		
26.	The principal provides teachers with advice on professional matters.	0.735				
27.	The principal shows anger when being dissatisfied with teachers' work.				0.731	
28.	Staff meetings are long and boring.		0.568			
29.	Teachers are optimistic regarding pupils' development.			0.621		
30.	Teachers organize social gatherings for the teaching staff.					0.764
31.	Teachers' behaviour is alibistic.				0.545	
32.	Teachers visit cultural events together.					0.892
33.	The principal talks a lot.		0.639			
34.	Teachers work selflessly.			0.896		
	Eigenvalues	5.698	2.857	6.389	1.894	1.435
	% variance	13.172	12.028	17.258	11.401	10.992

Note: SPB = Supportive principal behaviour; DPB = Directive principal behaviour; ETB = Engaged teacher behaviour; FTB = Frustrated teacher behaviour; ITB = Intimate teacher behaviour.

By means of Varimax rotation (also called the Kaiser-Varimax rotation), we maximized the square loads, where the "load" decreases correlations between the variables and factors. Several variables essential for the interpretation of the results were specified, and the relevance and the factorial structure of the standardized OCDQ-RS was verified for the data obtained from vocational school teachers.

Based on the fact that the eigenvalues were higher than 1.0, five factors were extracted. The values for internal factors are displayed in Table 2.

Based on the comparison of the obtained values, it can be assumed that the highest value of variance was observed in the dimension of Engaged teacher behaviour, which was followed by Supportive principal behaviour, Directive principal behaviour, Frustrated teacher behaviour, and Intimate teacher behaviour.

The extracted dimensions of the OCDQ-RS methodic were clearly defined, and their content was identified and specified. In the case of all five dimensions, internal consistency was estimated using Cronbach's alpha coefficient (see Tables 3–7). The values of the Cronbach's alpha coefficient indicate that the internal consistency of the items saturating the specified factors is within the acceptance band (even though in the case of several items, it can be considered questionable as the value is between 0.6 and 0.7). From these data, it is clear that further modification in calculating the values for individual factors would not result in increased levels of reliability of items saturating the extracted factors.

Table 3. Supportive principal behaviour SPB—Cronbach's alpha for internal consistency.

Supportive Principal Behaviour—SPB	
	Cronbach's alpha if item deleted
1. The principal sets an example by working hard himself/herself.	0.638
2. The principal compliments teachers.	0.624
3. The principal goes out of his/her way to help teachers.	0.786
4. The principal explains his/her reason for criticism to teachers.	0.851
5. The principal is available after school to help teachers when assistance is needed.	0.693
6. The principal uses constructive criticism.	0.752
7. The principal provides teachers with advice on professional matters.	0.848
Cronbach's alpha: 0.742	

Table 4. Directive principal behaviour DPB—Cronbach's alpha for internal consistency.

Directive Principal Behaviour—DPB	
	Cronbach's alpha if item deleted
1. Teacher–principal conferences are dominated by the principal.	0.967
2. The principal rules with an iron fist.	0.768
3. The principal monitors everything teachers do.	0.953
4. The principal is autocratic.	0.892
5. The principal supervises teachers closely.	0.984
6. The principal takes action against the staff when being dissatisfied with something.	0.935
7. Staff meetings are long and boring.	0.619
8. The principal talks a lot.	0.682
Cronbach's alpha: 0.852	

Table 5. Engaged teacher behaviour ETB—Cronbach's alpha for internal consistency.

Engaged Teacher Behaviour—ETB	
	Cronbach's alpha if item deleted
1. Teachers are friendly with students.	0.823
2. Teachers help and support each other.	0.695
3. The morale of teachers is high.	0.951
4. Assigned non-teaching duties are excessive.	0.867
5. Teachers really enjoy working here.	0.649
6. Teachers respect the personal competence of their colleagues.	0.736
7. Teachers tend to get excited about new ideas.	0.638
8. There is a feeling of collegiality among teachers.	0.865
9. Teachers are optimistic regarding pupils' development.	0.704
10. Teachers work selflessly.	0.869
Cronbach's alpha: 0.779	

In the research study, a standardized questionnaire was used, the calculated values were compared with the basic reliability criteria, and it can be assumed that the values are relatively high. The question remains, to what extent would the situation change if the items, in the case of which the consistency is questionable (the value of Cronbach' alpha is between 0.6 and 0.7),—the principal sets an example by working hard himself/herself; the principal compliments teachers; the principal is available after school to help teachers when assistance is needed; staff meetings are long and boring; the principal talks a lot; teachers help and support each other; teachers really enjoy working here.; teachers tend to get excited about new ideas; teachers are not happy about some colleagues' behaviour; or

teachers are proud of their school-were excluded. Would it cause an increase in reliability within the established standards?

Table 6. Frustrated teacher behaviour FTB—Cronbach's alpha for internal consistency.

Frustrated Teacher Behaviour—FTB		
		Cronbach's alpha if item deleted
1.	The mannerisms of teachers at this school are annoying.	0.743
2.	Administrative paper work is burdensome at this school.	0.854
3.	Teachers are not happy about some colleagues' behaviour.	0.681
4.	The principal shows anger when being dissatisfied with teachers' work.	0.875
5.	Teachers' behaviour is alibistic.	0.706
	Cronbach's alpha: 0.771	

Table 7. Intimate teacher behaviour ITB—Cronbach's alpha for internal consistency.

Intimate Teacher Behaviour—ITB		
		Cronbach's alpha if item deleted
1.	Teachers are proud of their school.	0.638
2.	Teachers socialize with each other on a regular basis.	0.894
3.	Teachers organize social gatherings for the teaching staff.	0.952
4.	Teachers visit cultural events together.	0.917
	Cronbach's alpha: 0.851	

Based on the Cronbach's alpha coefficients, it can be assumed that the internal consistency of the five dimensions was confirmed and H1 about the existence of an internal factorial structure of the OCDQ-RS was verified, i.e., the construct validity of the OCDQ-RS was confirmed.

4.2. School Climate Openness

Based on the calculated scores for individual dimension, the Index of school climate openness was computed as IO = (SPB + ETB) − (DPB + FTB). Subsequently, intercorrelations between OCDQ-RS dimensions and the Index of school climate openness were calculated (see Table 8). In hypotheses H2 and H3, we assumed positive correlations between the computed Index of school climate openness and the dimension of Engaged teacher behaviour, Supportive principal behaviour, and Intimate teacher behaviour; and negative correlations between the computed Index of school climate openness and the dimensions of Directive principal behaviour and Frustrated teacher behaviour.

Table 8. Intercorrelations among OCDQ-RS dimensions.

	ETB	SPB	DPB	FTB	ITB	IO
ETB	1.00	0.48 **	0.15	−0.16	0.42 **	0.69 **
SPB		1.00	−0.16	−0.18	0.42 **	0.78 **
DPB			1.00	0.33 **	−0.13	−0.52 **
FTB				1.00	−0.18	−0.57 **
ITB					1.00	0.47 **

** $\alpha = 0.01$.

Positive correlations were found between the Index of school climate openness (IO) and the following dimensions: Engaged teacher behaviour (ETB)—moderate positive correlation (0.69), Supportive principal behaviour (SPB)—strong positive correlation (0.78), and Intimate teacher behaviour (ITB)—weak positive correlation (0.47). There is a moderately negative correlation between the Index of school climate openness (IO) and the dimensions of Directive principal behaviour (DPB) and Frustrated teacher behaviour (FTB). Hypotheses

H2 and H3 were verified and it was confirmed that dimensions representing positive characteristics of schools and suggesting positive school climate (Engaged teacher behaviour, Supportive principal behaviour, and Intimate teacher behaviour) correlate positively with the Index of school climate openness.

It is also interesting that the dimensions behave as predicted:Engaged teacher behaviour correlates statistically and significantly positively with Supportive principal behaviour, and Intimate teacher behaviour correlates statistically and significantly positively with Supportive principal behaviour. Statistically significant negative correlation was found between Directive principal behaviour and Frustrated teacher behaviour. The strongest positive correlation was found between the Index of school climate openness and Supportive principal behaviour, which indicates a significant impact of the applied leadership style on a school's organizational climate. This finding is in line with Gavora and Braunová's results [40].

5. Discussion

Within the research study, selected factors that have an impact on Slovak vocational schools' organizational climate were measured by means of the OCDQ-RS scale, consisting of five dimensions allowing for an examination of the associations between the applied teacher and principal behaviour and school climate openness.

In the questionnaire, there are two dimensions concerning the leadership style applied by the principal representing two ends of a continuum. The first dimension is Supportive principal behaviour. Hoy [43] characterizes supportive principals as hardworking leaders motivating teachers by means of constructive criticism, but also providing help and support to teachers both in their personal and professional lives. Supportive leaders are concerned with teachers' welfare but are also directed towards task achievement. Such principals are typically charismatic leaders-often role models-promoting complementary communication and teamwork. Supportive principal behaviour is characteristic for the participative leadership style described by Bush [6] and Leithwood et al. [7]. The observed correlation between the dimensions of Supportive principal behaviour and Engaged teacher behaviour is 0.48 (α = 0.01), which indicates that supportive principal behaviour could promote teacher engagement, and corresponds with Rothman and Fouché's [35] findings. In addition, Affolter [14] claims that work engagement is closely related with positive working experience. It is an important finding not only from the aspects of teachers' performance and students' achievement, but also because engaged teachers' morale is high, and as pointed out by Hoy [43], as they are proud of their school, enjoy working in it, and provide each other and their students with support, i.e., actively participate in creating a positive school climate. In schools, for which engaged teacher behaviour is typical, positive relationships and mutual trust prevail. Positive associations between Supportive principal behaviour, Intimate teacher behaviour, and Engaged teacher behaviour were confirmed by our findings as well; the correlation between Supportive principal behaviour and Intimate teacher behaviour is 0.42 (α = 0.01), and between Engaged teacher behaviour and Intimate teacher behaviour, it is 0.42 (α = 0.01). Intimate teacher behaviour can be characterized as positive social relationships among teachers, which are not purely professional, but can also be characterized as friendly. If this is the case, teachers know each other well and socialize together [43]. In this context, it must be noted that creating a positive social climate in an organization where people with different personalities, needs, and various backgrounds work, is a challenge for leaders and requires developed leadership skills.

On the other end of the scale, there is the dimension of Directive principal behaviour that relates to transformational leadership as defined by Bush [6], Leithwood et al. [7], or Caldwell and Spinks [26]. Directive principals, as defined by Hoy [43], are performance-oriented, interested in every detail of teachers' work and so, teachers are under constant control. It means that they are not provided with any space for self-realization. Directive principal behaviour can result in a loss of self-confidence in teachers, and a loss of autonomy [35] can decrease teacher engagement. Within our research study, a very weak

correlation (0.15, α = 0.01) was found between Directive principal behaviour and Engaged teacher behaviour, but the correlation between Directive principal behaviour and Frustrated teacher behaviour is 0.33 (α = 0.01). Based on the findings, it can be assumed that directive principal behaviour contributes to teachers' frustration, which is associated with feeling overloaded, complaining about unfavourable working conditions, about school management, colleagues, etc.; therefore, in general, frustrated teachers are not happy at work [43]. This is in line with Hur, Jeon, and Buetnners' [46] findings saying that an unhealthy organizational climate causes loss of motivation and enthusiasm in teachers, and results in teachers' dissatisfaction.

School leaders and the leadership style applied by them within their schools are among the key determinants of schools climate openness [9]. Open schools are characterized by trust, cohesion of the teaching staff, teacher engagement, a stable system of functioning, and in these institutions, a democratic leadership style is typically applied. In closed schools, there is distrust among teachers, a distance between the school leader and teachers is kept, and the relationships within the institution are relatively cold [10]. For closed schools, formalism in leadership and unclear vision are characteristic. In our study, positive correlations were found between the Index of school climate openness and the following dimensions: Engaged teacher behaviour (0.69; α = 0.01), Supportive principal behaviour (0.78; α = 0.01), and Intimate teacher behaviour (0.47; α = 0.01). There is negative correlation between the Index of school climate openness and the dimensions of Directive principal behaviour (-0.52; α = 0.01) and Frustrated teacher behaviour (-0.47; α = 0.01). Based on the obtained results, it can be assumed that the applied leadership style can affect the quality of interpersonal relationships and teacher behaviour in a school both in positive and negative directions, which matches the results of other research [47–50].

6. Conclusions

School organizational climate is a neglected field of research in Slovakia and there is no available study on the organizational climate of Slovak vocational schools. By means of the above presented research activities, we intended to react to the existing lack of information in the field and find out about school organizational climate as perceived by vocational school teachers. The main findings show that the applied leadership style can affect the quality of interpersonal relationships and teacher behaviour both in positive and negative direction. Although supportive principal behaviour can promote teacher engagement, our results show that directive principal behaviour contributes to teachers' frustration. Therefore, it is important to pay attention to building a favourable organizational climate in schools, which is a challenge for school leaders, but also educational systems should contribute to the quality of the organizational climate in schools by providing school leaders with educational opportunities in the field of school management and school leadership—especially courses and workshops focused on leadership styles, creating a positive organizational climate, building and maintaining positive relationships within educational institutions, as well as with external partners, and communication. To prepare future professionals, such courses should be implemented in undergraduate teacher training as well. To develop high-quality, in-service teacher training programmes and to adapt undergraduate teacher training programmes to the needs of both practicing and pre-service teachers, as well as school leaders, further research on organizational climate and factors that have a direct impact on it is needed. Research activities mapping individual schools' organizational climate should be carried out and also school organizational climate as perceived by teachers countrywide should be measured. Particular attention should be paid to the applied leadership style and the quality of the school organizational climate from the perspective of school leaders.

Although being aware of the limits of the research, considering the size of the sample and the fact that the obtained results cannot be generalized to the entire population of vocational school teachers, we believe that our findings can enrich current knowledge and provide a basis for further research activities in the field.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by The Board for Internal System of Quality Assurance of DTI University, Slovakia, in compliance with the Code of Ethics of DTI University, Slovakia (protocol code: RK/4/18/05/2021, date of approval: May 18, 2021).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author.

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