



Explaining academic optimism in schools: The impact of performance leadership and alignment between teachers, students, and parents

Ruud Lelieur^{*}, Jan Vanhoof, Noel Clycq

Department of Training and Education, University of Antwerp, Antwerp, Belgium

ARTICLE INFO

Keywords:

Academic optimism
School improvement
Performance management
Teacher school connectedness
Parental involvement
Parental participation
Student participation

ABSTRACT

This study aims to explore critical antecedents for fostering academic optimism in secondary schools. Academic optimism, comprising collective efficacy, academic emphasis, and trust, positively influences student performance, transcending background variables, such as SES or migration. We hypothesize that, according to teachers' perceptions, school leaders who explicitly focus on academic optimism not only generate more academic optimism but also foster more alignment between teachers, students, and parents, which, in turn, will further elevate the level of school academic optimism. The study, conducted in Antwerp, Belgium, included 1061 teachers from 37 secondary schools. Structural equation modelling was employed for analysis. Fit indices were good, and the overall image confirms our hypothesis. Principals have opportunities to enhance academic optimism and alignment between teachers, students, and parents through performance management for academic optimism. The most remarkable finding shows that an increased level of parental involvement (connecting parents to what happens in school) is promising for academic optimism, whereas increased parental participation (giving parents a voice in what happens in schools) carries potential risks—a critical yet possibly overlooked insight. Recognizing the considerable challenges highlighted in prior research regarding parental engagement, especially in secondary schools, this study unveils promising avenues for further exploration.

1. Introduction

Unveiling the critical components that influence student performance, irrespective of students' background factors, is an important objective in educational research, policy, and practice. The concept of academic optimism emerges as a significant framework, identifying key variables that enhance performance for all students, and withholding the potential to contribute to global efforts aimed at improving both excellence and equity in education (Hoy, 2012; Rezaei et al., 2023). This study aims to advance this field of inquiry by outlining critical antecedents for fostering academic optimism in secondary schools, specifically through the lens of teachers' perceptions. The academic optimism of schools comprises three interrelated subcomponents that positively impact student performance, even when controlling for background characteristics such as socioeconomic status (SES) or migration background (Boonen et al., 2014; Hoy et al., 2006a; McGuigan & Hoy, 2006). Teachers who perceive their team as demonstrating collective efficacy beliefs

^{*} Corresponding author.

E-mail addresses: Ruud.lelieur@uantwerpen.be (R. Lelieur), Jan.vanhoof@uantwerpen.be (J. Vanhoof), Noel.clycq@uantwerpen.be (N. Clycq).

(1), fostering trust in both students and parents (2), and prioritizing academic emphasis (3) are more likely to achieve the goal of improving performance, in contrast to teacher teams lacking this academically optimistic focus (Hoy et al., 2006b).

Considering these significant opportunities, it is imperative to gain an understanding of how to foster attitudes of academic optimism in schools. A recent systematic review emphasized the pivotal role of leadership in school effectiveness initiatives (Liebowitz & Porter, 2019). The importance of school leadership has been further demonstrated in research on academic optimism. For example, previous studies have identified a link between various leadership styles - authentic (Srivastava & Dhar, 2016a), distributed (Cansoy & Parlar, 2018; Hasanvand et al., 2013), instructional (Allen, 2011), transformational (Atif & Abid, 2021) and social justice (Feng & Chen, 2019) – and increased perceptions of academic optimism. A study by McGuigan and Hoy (2006) highlighted that principals can elevate a school's level of academic optimism by actively striving to enhance its three distinct components. Advancing beyond these findings, this study proposes a novel hypothesis inspired by insights from the field of organizational studies. Specifically, we focus on performance management, a crucial element for organizational success known for its capacity to enhance individual contributions towards overarching objectives (Aguinis et al., 2011; Fletcher & Williams, 1996). We argue that a leadership approach, which directly assesses and guides teachers' performance in alignment with academic optimism will have a more profound impact. This type of leadership behavior, which we will refer to as *performance management for academic optimism*, is characterized by its directness and intentionality. It underscores the crucial role of leaders in shaping an organization's culture. Unlike more traditional leadership approaches, which may indirectly influence academic optimism, performance management for academic optimism involves a direct assessment and guidance of teachers' performance aligned with academic optimism principles. This intentional and focused leadership strategy underscores a paradigm shift in understanding the role of leaders in shaping school culture and promoting academic optimism attitudes. Exploring this could provide valuable insights for both educational research and practice. From the perspective of performance management, communication and monitoring of key success factors are vital for organizational success (Ferreira & Otley, 2009). When the objective is to elevate levels of academic optimism, leadership practices that set clear directions can bolster shared understanding and increase the probability of realizing the intended outcomes (Sun & Leithwood, 2015). Consequently, a leadership style that clearly articulates and assesses teachers' academically optimistic behavior is expected to yield greater success.

In addition to the direct influence of the principal's performance management on the perceived level of academic optimism, we anticipate that a principal's proactive efforts to enhance the team's collective efficacy, foster trust in students and parents, and believe in the capabilities of all students will deepen the connection among teachers and increase parental involvement, parental participation and student participation. This is particularly important, as active stakeholder engagement is a key factor in enhancing academic performance (Elepu et al., 2023). Principals who take the initiative to emphasize the importance of reaching out to others are more likely to foster social bonds that can enhance the density of relationships within schools (Bishop Harris, 2015; Bryk, 2010). Research from Scott (2016) showed the importance of ongoing communication from teachers to parents to increase involvement. Clear articulation of these expectations by school leaders is expected to boost the likelihood of teachers investing more in such interactions (Epstein, 2002). Additionally, principals who articulate a positive learning climate are anticipated to enhance teachers' connectedness with the school (Hallinger et al., 2018). In schools where these practices are more present, we predict higher levels of perceptions of school academic optimism. In prior qualitative research, secondary school teachers highlighted the significance of connectedness as an important antecedent for academic optimism, as well as the importance of authentic relationships with students and parental involvement (Lelieur et al., 2023). Consequently, we expect that the heightened connectedness and interaction will contribute to increased efficacy beliefs within the teacher team, build more trust in students and parents, and foster a stronger belief in the potential of all students.

This study focuses on teachers, acknowledging their pivotal role in shaping school dynamics, taking into account their distinctive perspectives and significant impact on the educational environment. Data collected from over 1000 teachers provide a focused examination of their perceptions, offering valuable insights into their views and experiences. In summary, we will test this hypothesis, based on teachers' perceptions: school leaders who explicitly focus on academic optimism not only generate more academic optimism but also foster a better alignment between teachers, students and parents, which, in turn, will further elevate the level of (the sub-concepts of) school academic optimism. To assess the validity of the proposed hypothesis, we will employ Structural Equation

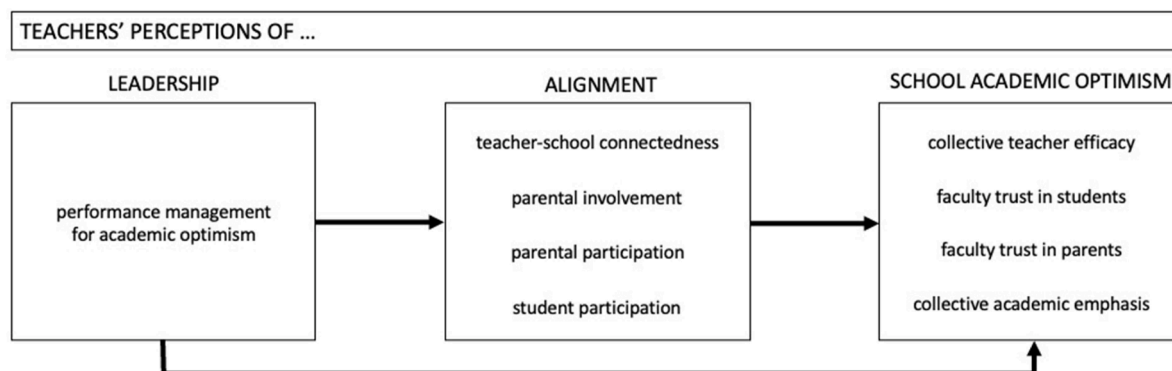


Fig. 1. Hypothesized model.

Modelling (SEM) to scrutinize the potential relationships among variables. Given that this study encompasses multiple dependent and independent variables concurrently, we opt for a path analysis approach, which is particularly suited to such complex multivariate scenarios. In that way, this research seeks to contribute to the existing body of knowledge by uncovering critical antecedents that promote academic optimism, paving the way for a more comprehensive understanding and practical application in educational settings.

2. Theoretical framework

This section introduces the theoretical perspectives related to each variable in our hypothesized model, as shown in Fig. 1, and explains their implementation in this study.

2.1. Academic optimism

School academic optimism, as proposed by Hoy et al. (2006a), is a conceptual framework rooted in the field of school effectiveness research with a particular focus on identifying key variables with an impact on student achievement, irrespective of students' background characteristics. It comprises three interrelated subconcepts: collective efficacy, faculty trust in students and parents, and academic emphasis. Several empirical studies have validated school academic optimism as a second-order latent construct, consistently demonstrating a robust positive correlation with student outcomes (e.g., Boonen et al., 2014; Hoy et al., 2006b; Mitchell et al., 2016; Wu & Lin, 2018). The significance of these findings is multifaceted. As this construct positively impacts all students, it provides educational practitioners with the opportunity to implement policies that benefit everyone. Moreover, the adaptability of a culture of academic optimism suggests that even pessimistic schools have the potential to become optimistic (Hoy, 2012).

Each subconcept within the framework contributes uniquely to the overall climate of optimism within a school. Therefore, it is essential to have a thorough understanding of these different subconcepts.

2.1.1. Collective efficacy

Collective efficacy refers to the shared belief among teachers that their collective efforts can positively influence student learning outcomes (Goddard et al., 2004). It represents the confidence of teachers in their capacity to overcome challenges and make a meaningful difference in the lives of their students (Wu, 2013). This concept extends beyond individual teacher self-efficacy, emphasizing the importance of collaboration and shared responsibility for student success (Goddard, 2002). Schools characterized by high levels of perceived collective efficacy exhibit a strong sense of cohesion and purpose, with teachers working collaboratively towards common goals and supporting one another in their professional endeavors (Kirby & DiPaola, 2011).

2.1.2. Faculty trust in students and parents

Faculty trust in students and parents refers to the willingness of teachers to establish trusting relationships with both students and their parents (Beard et al., 2010). This involves a belief in the reliability, goodwill, and competence of students and parents, fostering an environment of mutual respect and cooperation (Hong, 2017). Human interdependence is recognized as a fundamental aspect of these trusting relationships, with vulnerability considered as a key element (Van Maele & Van Houtte, 2009). This willingness to be vulnerable allows students to learn from their mistakes in a supportive environment, while also reassuring parents that educators have their children's best interests at heart (Beard et al., 2010). Furthermore, regular contact is crucial for nurturing trust relationships (Hoy & Tschannen-Moran, 1999), particularly in secondary schools, where teacher-parent communication tends to decline as children age, potentially jeopardizing these feelings of trust (Scott, 2016). While previous research treated trust in students and parents as a single entity, recent findings by Lelieur et al. (2022) suggest that differentiating between trust in students and trust in parents provides a more accurate analytical framework. This distinction is essential because it helps to uncover the affective facets of relationships among teachers, students, and parents. By recognizing these separate dimensions of trust, it is possible to gain deeper insights into the specific dynamics and interactions within these relationships.

2.1.3. Academic emphasis

Academic emphasis reflects teachers' perception of a shared commitment throughout the school community to prioritize learning and foster a supportive educational atmosphere (Hoy, 2012). It involves setting challenging academic standards, promoting a culture of excellence, and nurturing an environment where students are motivated to thrive (Goddard et al., 2000; Hoy et al., 2006a). Schools where teachers perceive a strong academic emphasis demonstrate a clear dedication to student achievement, with teachers providing rigorous instruction, setting high expectations, and helping students reach their full potential (Allen, 2011). This aspect underscores the importance of creating a positive academic atmosphere that values learning, celebrates successes, and encourages continuous improvement (Goddard et al., 2000).

2.2. Performance management for academic optimism

In the domain of organizational studies, performance management is underscored as a critical determinant of organizational success (Aguinis et al., 2011). In recent decades, educational institutions have adopted practices resembling those in the private sector to enhance school effectiveness (Page, 2016). Building upon Fletcher and Williams' (1996) conceptualization of performance management as a leadership style focused on enhancing individual contributions to overall organizational success and supported by

research highlighting several benefits of clear articulation of performance expectations (Sun & Leithwood, 2015; Van den Ouweland et al., 2019), this study introduces the concept of performance management for academic optimism. It emphasizes the cultivation of a performance-oriented leadership with academic optimism as its central focus. This approach incorporates unique strategies designed to foster a school environment where academic optimism can flourish. More specifically, it involves the principal's commitment to assess and guide teacher performance in line with academic optimism, whether this is explicitly articulated or implicitly demonstrated through their leadership actions. Even if principals are not explicitly familiar with the concept of academic optimism, they may still embody its core principles of efficacy, trust, and academic emphasis. However, a deliberate integration of academic optimism into performance expectations is expected to enhance implementation success (Gerrish, 2016).

2.3. Alignment between teachers, students, and parents

In the educational process, next to the principal, the pivotal triad of relationships is established among teachers, students, and parents. Fostering these relationships within the school community and facilitating alignment between the school, teachers, students, and parents enhances the likelihood of achieving successful teaching and learning outcomes (Bryk, 2010). Principals play an essential role in setting the framework and delineating expectations for fostering such alignments, while also providing support to teachers in this endeavor (McGuigan & Hoy, 2006). In this study, alignment practices among primary stakeholders are described across four key dimensions: teacher-school connectedness, which reflects the teachers' sense of belonging to their school; parental involvement, indicating the degree to which parents are engaged in their children's everyday school activities; and parent and student participation, representing the opportunities both groups have and seize in school decision-making processes. These dimensions collectively express the essential connectedness between these core members of the school community.

2.3.1. Teacher-school connectedness

In line with Meyer et al. (2002), we characterize teacher-school connectedness as the manifestation of teachers' affective commitment, which is reflected in their emotional attachment to and identification with the school. It incorporates a sense of belonging and a commitment to maintain membership within the school community and to exert additional effort for organizational success (Srivastava & Dhar, 2016b). This sense of connection is not only crucial for professional motivation (De Neve & Devos, 2017) but is also believed to enhance instructional quality and contribute to teacher efficacy (Lu, 2021). Research suggests that this form of connectedness may serve as an antecedent for academic optimism (Srivastava & Dhar, 2016a). Additionally, other studies highlight the positive impact principals can have on fostering teachers' sense of connection to their school (Geijsel et al., 2003; Hallinger & Heck, 2010; Marshall, 2015). Nguni et al. (2006) argued that principals setting explicit directions and establishing expectations grounded in a shared vision are crucial for fostering connectedness within the teaching team.

2.3.2. Parental involvement

Parental involvement encompasses the reciprocal relationship between schools and parents. It involves parents actively engaging in their children's educational journey (Jeynes, 2007), and includes the school's responsibility to communicate with parents regarding school activities and their child's progress (Epstein, 2002). Examples of parental involvement include parents attending parent-teacher conferences, participating in school events, and schools making additional efforts to help parents feel connected to their children's schooling. Bryk (2010) stressed the pivotal role of principals proactively encouraging teachers to connect with parents to foster trust and collaboration regarding students' education. School leaders who prioritize outreach to all parents and emphasize ongoing communication between teachers and parents facilitate high levels of parental involvement, strengthening relationships between parents and teachers and fostering trust (Jeynes, 2007; Scott, 2016). This trust extends beyond parent-teacher relationships to include bonds between teachers and students as well (Clycq et al., 2022), fostering a collaborative environment that enhances school effectiveness (Bryk, 2010; Tschannen-Moran, 2001).

2.3.3. Parent participation

While parental involvement aims to integrate parents into their children's daily school life, parental participation prioritizes empowering parents to contribute their perspectives and influence educational processes and policies within schools (Epstein, 2002). It is about parents actively engaging to serve and influence the overall school practices (Brown et al., 2022). Differentiating between involvement and participation is crucial in order to emphasize the distinction between the more supportive role of involvement and the more proactive approach of participation in connecting parents to schools. This differentiation not only facilitates a more nuanced analysis but also illuminates the intricate dynamics at play, offering a deeper understanding of parental engagement in schools (Brown et al., 2022).

Research indicates that when principals create an environment that offers teachers and parents meaningful opportunities for authentic participation, it can cultivate a positive school atmosphere (Tschannen-Moran, 2001), which could serve as an optimal setting for nurturing academic optimism. Moreover, when school leaders explicitly involve their teaching team in fostering parental participation, they are likely to strengthen both their teachers' commitment to these engagements and their own (Epstein, 2002).

2.3.4. Student participation

Student participation, like parent participation, is characterized by the ability to exert influence over decisions and activities within the school's educational practices and procedures (Hart, 2008). It requires students to engage actively in decision-making processes at both the school and class levels, fostering dialogue between students and other decision-makers (Mager & Nowak, 2012). This level of

participation implies that students are not just contributors, but influencers, having a significant say in the decisions made and actions taken within the educational setting. Empowering students to express their views also equips teachers with a deeper comprehension of the teaching and learning dynamics (Flutter, 2007), thereby potentially enhancing their teaching approach and increasing feelings of efficacy, trust, and thus academic optimism. Principals who expect their teachers to cultivate trustful interactions with students are expected to utilize a key strategy for promoting greater student participation (Afzal Tajik & Wali, 2020).

2.4. Teachers' perceptions

While we acknowledge the importance of other stakeholders' perspectives, our focus is on teachers' perceptions, as they are pivotal in shaping students' educational experiences. Teachers' views on education significantly influence school dynamics (Hardré & Sullivan, 2009). Social reality is constructed through individual perceptions, shaped by cognitive processes that may not always align with objective reality (Carbon, 2014). Because these perceptions actively contribute to the construction of reality within schools, understanding them is crucial. By examining teachers' perceptions, we gain deeper insights into educational practices and outcomes (Hajisoteriou et al., 2018).

3. Data and methods

In this section, we will outline the sample used for this study, the measures employed to capture the included variables, and the analyses conducted to test the proposed hypotheses.

3.1. Sample and data collection

We conducted an online survey to gather a comprehensive and diverse dataset (Cohen et al., 2011). Responses for this study were gathered in Antwerp, the largest city in Flanders, Belgium, characterized by a significant diversity of secondary schools concerning ethnicity and SES. Employing a stratified clustered systematic sampling method, we ensured representation across different school strata. This approach involved categorizing schools based on the number of disadvantaged students, determined by two student-level indicators: "language spoken at home" and "mother's education level," as recognized by the Flemish government. The resulting list was divided into five equal groups, from which schools were systematically sampled proportionally. Participating principals then distributed the online survey link to their teaching staff. While this method may introduce biases due to voluntary response, it was deemed the most suitable option, given the autonomy of Flemish schools in research involvement, potentially leading to selective dropouts. However, our comparison with the population found no evident grounds to suspect such occurrences (see Table 1). Additionally, specific participation criteria were established, requiring a minimum of 20 participating teachers per school (or 10 in schools with fewer than 30 teachers). We approached 55 schools and secured participation from 41, with 37 surpassing the school's internal response threshold. The overall response rate stood at 67 %, with 1061 teachers participating. On average, there were 29 respondents per school, with responses ranging from 11 to 58 per school.

3.2. Measures

To assess teachers' perceptions of school academic optimism, we used the adapted and validated Survey for Academic Optimism (Lelieur et al., 2022), comprising 19 items grouped into four subscales: collective efficacy, faculty trust in students, faculty trust in parents, and collective academic emphasis. Teachers' perceptions of the alignment between teachers and the school, as well as between both students and parents with the school, was assessed through four distinct scales: teacher-school connectedness, parental involvement, parental participation, and student participation. These measures drew inspiration from the studies conducted by Vangrieken and Kyndt (2016) and De Groof et al. (2001). To evaluate performance management for academic optimism, we developed

Table 1
Descriptive statistics of respondents' characteristics.

Respondents' characteristics	sample	population
Gender		
Female	63.4 %	64.3 %
Male	36.2 %	35.7 %
Other	0.4 %	NA
Age		
20–29 years	12.1 %	14.8 %
30–39 years	27.1 %	28.2 %
40–49 years	31.9 %	28.2 %
50–59 years	24.3 %	22.4 %
60+	4.4 %	6.4 %
Educational degree		
bachelor	46.1 %	52.6 %
master	43.3 %	38.4 %
other	10.4 %	9 %

a novel scale by integrating conventional performance management principles with the dimensions of academic optimism. All measures used a 7-point response scale, ranging from "strongly disagree" (1) to "strongly agree" (7), to capture the perceptions of teachers. A pilot study and exploratory factor analyses were conducted to validate these scales prior to the large-scale data collection, which served as the foundation for this study. Table 2 provides sample items for the measures and shows that all scales in this study have a Cronbach's alpha value of at least 0.77.

3.3. Analysis

Taking a path model approach, this study simultaneously examines multiple dependent and independent variables. Therefore, structural equation modelling (SEM) is a favored technique to analyze the possible relationships, as it is designed to evaluate the appropriateness of the proposed hypothesis (Kline, 2005). SEM comprises two key components: a measurement component, where latent variables are constructed to explain covariation among observable variables (Brown, 2015), and a structural component, specifying regression-like relationships to test hypotheses about these variables (Beaujean, 2014). SEM's strength lies in its capacity to address measurement errors by modelling latent variables and their connections with observed variables, yielding more precise estimates of variable relationships (Nunkoo & Ramkissoon, 2012). Given our focus on teachers' perceptions, data analysis occurs at the individual teacher level. As agreement among teachers within the same school is plausible, we use robust maximum likelihood estimation (MLR) to account for the nested data structure (Stapleton et al., 2016). Full information maximum likelihood (FIML) is used to handle missing data (Schlomer et al., 2010). To analyze model fit, we used the lavaan package (version 0.6–7) in R-studio, considering several fit indices (Hooper et al., 2008).

4. Results

Within this section, we will begin by briefly exploring the descriptive results before presenting the outcomes obtained from the path analysis.

4.1. Descriptive findings

Teachers perceive their principals as implementing performance management for academic optimism to a significant extent ($M = 5.17$, $SD = 0.97$). Upon examining the alignment among school participants, the results show considerable variation. Teachers generally feel connected to their schools ($M = 5.84$, $SD = 1.12$) and perceive some level of student participation ($M = 4.88$, $SD = 1.04$). However, their views on parental involvement ($M = 4.06$, $SD = 1.05$), and parental participation ($M = 3.15$, $SD = 1.26$) tend to be more negative. Also among the subconcepts of academic optimism, the parental scale, faculty trust in parents, ranks lowest ($M = 4.52$, $SD = 0.95$), followed by collective academic emphasis ($M = 4.96$, $SD = 0.88$), while faculty trust in students ($M = 5.17$, $SD = 0.89$), and collective efficacy ($M = 5.49$, $SD = 0.86$) score higher.

4.2. Explanatory findings

Our analyses started with the analytical model outlined in the conceptual framework. The model fit indices were not yet acceptable ($CFI=0.843$, $RMSA=0.060$, $SRMR=0.082$). To enhance model fit, modification indices were reviewed and acted upon when conceptually sound. Several covariances were admitted, mostly within scales (e.g. between two items (CE2 and CE3) within the collective efficacy scale), sometimes across scales (e.g. between similar items of the faculty trust in students and faculty trust in parents - scales (FTS4 and FTP4)). To maintain a concise and coherent visualization, these covariances between individual items are omitted from the figure. However, a comprehensive overview of all parameters is provided in the Appendix. The model fit indices for this final

Table 2
Descriptives and Cronbach's alpha.

	item example	items	min	max	M	SD	α
Performance Management for Academic Optimism	My principal emphasizes the importance of trusting students.	6	1	7	5.17	0.97	.87
Alignment between teachers, students, and parents							
Teacher School Connectedness	I feel a strong connection to this school.	4	1	7	5.84	1.12	.90
Parental Involvement	At this school, we make efforts to make parents feel connected to the school.	6	1	7	4.06	1.05	.80
Parental Participation	At this school, parents are treated as partners in the development of school policies.	4	1	7	3.15	1.26	.88
Student Participation	At this school, students have a say in the decisions made.	4	1	7	4.88	1.04	.77
School academic optimism - subconcepts							
Collective efficacy	Teachers in this school believe that every student can learn.	6	2	7	5.49	0.86	.88
Faculty trust in students	Teachers in this school trust their students.	4	2	7	5.17	0.89	.85
Faculty trust in parents	Teachers in this school trust the parents of their students.	4	1	7	4.52	0.95	.86
Collective academic emphasis	This school sets high standards for student achievement.	5	1	7	4.96	0.88	.77

model are acceptable (CFI=0.915, SRMR=0.065) to good (RMSEA=0.045).

The overall image confirms our hypothesis. As seen in Fig. 2, according to teachers' perceptions, school leaders who explicitly focus on academic optimism not only generate more academic optimism but also foster alignment between teachers, students, and parents, which, in turn, elevates the level of school academic optimism.

Upon further investigation, and with the understanding that statements about the effects of the predictors of variation in our dependent variables should always be interpreted as "after controlling for all other covariates in the model", it was found that higher levels of teacher perception of the principal's performance management for academic optimism (PMAO) are directly associated with higher levels of teachers' perceptions of faculty trust in students ($\beta = 0.177, p < .01$), faculty trust in parents ($\beta = 0.283, p < .001$) and collective academic emphasis ($\beta = 0.251, p < .01$). The results indicate that there is no statistically significant direct impact of PMAO on teachers' perceptions of collective efficacy beliefs. This finding is unexpected, particularly considering that a principal's explicit emphasis on the belief in their team is typically seen as a critical strategy for enhancing collective efficacy. Nonetheless, our analyses uncover the existence of additional, albeit indirect, factors at play.

Higher levels of teacher perception of PMAO are associated with higher levels of all four modelled alignment practices, which in turn have an impact on the subconcepts of academic optimism. Teachers who indicate that their principal has higher levels of PMAO also report higher levels of teacher school connectedness ($\beta = 0.502, p < .001$). The results indicate that 25 % of the variance in teacher school connectedness is explained by these perceptions of PMAO. Furthermore, teacher school connectedness acts as a mediator between PMAO and three out of the four subconcepts of academic optimism. Teachers who feel more connected to their school also perceive higher levels of collective efficacy ($\beta = 0.163, p < .001$), faculty trust in students ($\beta = 0.160, p < .001$) and collective academic emphasis ($\beta = 0.164, p < .001$). Additionally, teachers' perceptions of PMAO have a statistically significant impact on parental involvement ($\beta = 0.642, p < .001$). The variance in parental involvement is explained by principals' PMAO to the extent of 41 %. Higher levels of teachers' perceptions of parental involvement are associated with all four subconcepts of academic optimism. There is a statistically significant impact on collective efficacy ($\beta = 0.397, p < .001$), faculty trust in students ($\beta = 0.253, p < .01$), faculty trust in parents ($\beta = 0.311, p < .001$), and collective academic emphasis ($\beta = 0.261, p < .01$). Perceptions of PMAO are also positively associated with parental participation ($\beta = 0.403, p < .001$), but contrastingly the effect of teachers' perception of parental participation is negatively associated with collective efficacy ($\beta = -0.184, p < .01$) and faculty trust in students ($\beta = -0.125, p < .05$). This suggests that when teachers believe that parents exert influence over school policy, they perceive their team to have less collective efficacy and less trust in students. The effect of PMAO on student participation is positive ($\beta = 0.416, p < .001$), as is the effect of student participation on teachers' perceptions of collective efficacy ($\beta = 0.239, p < .001$), faculty trust in students ($\beta = 0.196, p < .001$) and collective academic emphasis ($\beta = 0.148, p < .01$).

The direct effect of PMAO on the subconcepts of academic optimism was found to be significant, although not particularly pronounced. However, when we incorporate the role of alignment practices as a mediator, we observe the effects becoming more substantial. Furthermore, the R^2 value indicates that the model explains a considerable proportion of the variance in teachers' perceptions of collective efficacy (31 %), faculty trust in students (27 %), faculty trust in parents (38 %), and collective academic emphasis (35 %).

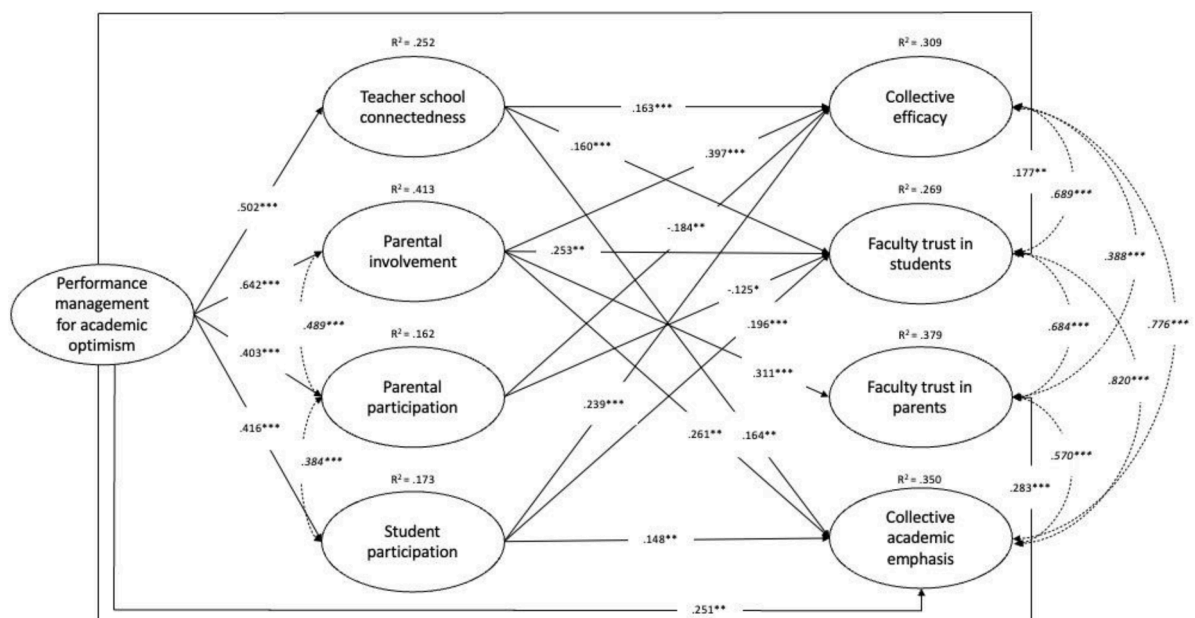


Fig. 2. Visualization of the path model - * $p < .05$. ** $p < .01$. *** $p < .001$.

5. Discussion

In this study, we tested the hypothesis that – from teachers' perceptions - school leaders who explicitly focus on academic optimism not only generate more academic optimism but also foster a better alignment between teachers, students and parents, which, in turn, will further elevate the level of (the subconcepts of) school academic optimism. In doing so, we investigated the impact of principals' performance management for academic optimism (PMAO), as perceived by teachers, on the school's alignment with its key stakeholders and on subcomponents of academic optimism. We aimed to determine the extent to which the influence of PMAO on academic optimism is direct, indirect through alignment practices, or a combination of both. The results empirically confirmed our hypothesis. According to teachers, school leaders who explicitly emphasize academic optimism not only lay the foundation for increased academic optimism but also foster greater alignment among teachers, students, and parents, thereby enhancing even more the overall academic optimism of the school. Higher levels of teachers' perceptions of PMAO are positively linked with faculty trust in students and parents, as well as collective academic emphasis. These relationships indicate that PMAO bolsters key components of academic optimism. Teachers who perceive their principal's PMAO positively report higher levels of school connectedness, which in turn mediates the relationship between PMAO and collective efficacy, faculty trust in students, and collective academic emphasis. Given that previous research indicates that teachers' decisions to remain at a school are strongly influenced by their sense of connectedness (Marshall, 2015), these findings are particularly relevant.

Additionally, PMAO significantly impacts student participation, which subsequently enhances perceptions of collective efficacy, faculty trust in students, and collective academic emphasis. This insight tentatively confirms Hajisoteriou et al.'s (2018) assertion that student participation is a potentially important strategy to improve student performance. It also resonates with Mager and Nowak's (2012) systematic review, which found that such participation positively affects student-teacher relationships. The same review highlighted the need for more research on the potential impacts of student participation. This study partially addresses that need by unpacking the relationship between teachers' perceptions on PMAO, student participation and the subcomponents of academic optimism.

The study underscores the necessity of differentiating between forms of parental engagement and offers nuanced insights into the roles of parental involvement (connecting parents to what happens in schools) and parental participation (giving parents a voice in school decisions) in fostering academic optimism within schools. Teachers' perceptions of PMAO are most strongly associated with their perceptions of parental involvement. And higher levels of perceived parental involvement correlate positively with all sub-dimensions of academic optimism. Conversely, while PMAO also positively influences parental participation, this form of engagement is negatively associated with collective efficacy and faculty trust in students, when considering all the modeled variables. This paradox may stem from teachers' apprehension about parents undermining their professional authority and lacking valuable educational insights (Mills & Gale, 2004). Such concerns are more acute in culturally diverse environments where conventional parental participation models may fall short, causing miscommunication and tension between parents and teachers (Brown et al., 2022; Curry & Holter, 2019). The divergent views on participation can also reduce trust levels, though it remains unclear why this decline is observed more in the faculty's trust in students than in its trust in parents.

These findings suggest that, to enhance academic optimism, fostering parental involvement presents significant opportunities, whereas parental participation carries potential risks. This critical insight underscores the importance of reevaluating parental engagement strategies (Curry & Holter, 2019). Effective partnerships may depend on open communication between parents and schools regarding their respective roles (Szelei et al., 2024), with the establishment of shared understandings leading to more effective and inclusive collaborations (Hajisoteriou et al., 2018). For this reason, it is essential to challenge preconceived notions about parents' socioeconomic and cultural backgrounds, especially in a highly diverse context. Holding such assumptions may limit the opportunities schools provide for meaningful parental involvement (Brown et al., 2022).

Recognizing the challenges highlighted in prior research on parental engagement, particularly in secondary education, this study unveils promising avenues for further exploration. Principals can make a significant impact by emphasizing PMAO. Despite the potential negative impact of parental participation on collective efficacy and faculty trust in students, it remains important to invest in both parental involvement and participation. Education systems that foster consistent parent-school relationships tend to perform better, particularly benefiting underprivileged students (OECD, 2023). Schools should carefully consider when to involve parents in their children's educational process and when to have them participate in class- or school level decision-making processes. In line with the Hoy and Tarter framework, as detailed by Hoy and Miskel (2012), it is recommended that participation in educational decisions should be attentively evaluated, respecting the professional roles and time of both teachers and parents, and based on the relevance and expertise of those involved. Future research could explore whether schools that implement this approach experience fewer negative consequences from parental participation. Additionally, qualitative research into the reasons behind the adverse effects of parental participation could yield a deeper comprehension of the dynamics involved and guide schools in fostering beneficial outcomes from parental participation while minimizing potential negatives.

While the study raises important and pertinent issues, it is not without its limitations. Our research provides valuable insights into the social reality of schools by examining teachers' perceptions. We acknowledged the hierarchical structure of schools but did not explore the within-school variance of these perceptions. Although our findings are highly relevant, they may be influenced by both individual teacher characteristics and broader institutional factors. A multilevel analysis could potentially unravel this complexity by examining variations at different hierarchical levels within schools. This approach could build upon our findings by identifying whether observed patterns are attributable to teacher-specific traits or reflective of broader school-wide dynamics.

In addition, relying on a single survey to measure all variables can introduce common-method bias, wherein the measurement technique itself influences the results (Podsakoff et al., 2012). Although there's no unfailing way to eliminate this bias (Favero &

Bullock, 2015), we have made efforts to reduce its impact. Despite these measures, the potential for bias persists, and it is crucial to remain cautious. Further research could explore alternative operationalizations or methods to measure the same characteristics, potentially providing different insights and validating the robustness of our findings. This would contribute to a more comprehensive understanding of the constructs and clarify the extent to which our results are influenced by the measurement method itself.

Next, the study's focus on the academic optimism of schools prompts curiosity about the potential outcomes if we instead modeled the academic optimism of individual teachers. This shift in perspective raises the question whether a principal's performance management strategies aimed at fostering academic optimism would effectively translate into tangible improvements within the classroom setting. Also, while our study focused on a comprehensive set of dimensions within the school community, it is pertinent to recognize that additional factors may affect alignment too. These factors could include the extent of teacher collaboration, teacher participation in decision-making, or the level of trust that parents and students place in the principal. Our study did not encompass all potential dimensions, and future research could expand the conceptual framework to incorporate these supplementary elements. This broadening of scope could offer a more holistic understanding of alignment dynamics within educational settings.

6. Conclusion

This research provides strong evidence that a school leader's deliberate emphasis on academic optimism creates significant opportunities. This leadership approach not only strengthens teachers' trust and collective academic emphasis, but also connects teachers, parents, and students, positively influencing all facets of school academic optimism. It highlights the crucial role of school leaders and the significant impact of their actions and discourse. By offering concrete pathways to improve student performance, promote equity, and enhance parental involvement—three critical and timely themes in both educational practice and research—this study provides valuable insights that can guide practitioners and policymakers in implementing effective strategies for school improvement. Positioned at the heart of school policy, principals have the capacity to drive meaningful change. They can do this by explicitly expressing their confidence in the abilities of their teaching staff, emphasizing the importance of trust in students and parents, guiding teachers when trust is lacking, setting clear expectations for fostering strong relationships with parents, and consistently reinforcing belief in the potential of every student. The unique contribution of this study lies in its focus on specific, leadership practices, offering principals a concrete framework for implementation.

Additionally, the findings underscore the nuanced role of parental engagement, advocating for involvement over participation to optimize academic optimism. However, both remain important for improving student performance. Increasing parental involvement through the principal's PMAO is identified as a promising strategy. Nonetheless, a cautious approach to fostering parental participation is recommended. The study argues for continued research and a reassessment of these practices to better meet the changing needs of schools, parents and students.

Declaration of generative ai and AI-assisted technologies in the writing process

During the preparation of this work the authors used AI in order to improve language and readability. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

CRediT authorship contribution statement

Ruud Lelieur: Writing – original draft, Visualization, Validation, Project administration, Methodology, Formal analysis, Data curation, Conceptualization. **Jan Vanhoof:** Writing – review & editing, Supervision, Conceptualization. **Noel Clycq:** Writing – review & editing, Supervision, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix

Regression	<i>b</i> ^a	<i>SE</i> ^b	<i>z</i> ^c	β ^d	<i>p</i> ^e	Sig ^f	<i>R</i> ^{2g}
Collective efficacy ~							.309
Performance management for academic optimism	0.083	0.062	1.338	0.082	0.181	ns	
Teacher school connectedness	0.119	0.029	4.093	0.163	0.000	***	
Parental involvement	0.300	0.054	5.512	0.397	0.000	***	
Parental participation	−0.127	0.039	−3.223	−0.184	0.001	**	
Student participation	0.181	0.037	4.840	0.239	0.000	***	
Faculty trust in students ~							.269
Performance management for academic optimism	0.195	0.064	3.020	0.177	0.003	**	

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(continued)

Regression	<i>b</i> ^a	<i>SE</i> ^b	<i>z</i> ^c	β ^d	<i>p</i> ^e	Sig ^f	<i>R</i> ² ^g
Teacher school connectedness	0.128	0.034	3.758	0.160	0.000	***	
Parental involvement	0.210	0.063	3.308	0.253	0.001	**	
Parental participation	-0.095	0.044	-2.129	-0.125	0.033	*	
Student participation	0.162	0.039	4.119	0.196	0.000	***	
Faculty trust in parents ~							.379
Performance management for academic optimism	0.270	0.061	4.453	0.283	0.000	***	
Teacher school connectedness	0.049	0.028	1.751	0.071	0.080	ns	
Parental involvement	0.224	0.063	3.564	0.311	0.000	***	
Parental participation	0.052	0.039	1.329	0.079	0.184	ns	
Student participation	-0.009	0.033	-0.270	-0.012	0.787	ns	
Collective academic emphasis ~							.350
Performance management for academic optimism	0.189	0.055	3.450	0.251	0.001	**	
Teacher school connectedness	0.090	0.026	3.425	0.164	0.001	**	
Parental involvement	0.148	0.047	3.128	0.261	0.002	**	
Parental participation	-0.035	0.031	-1.116	-0.068	0.264	ns	
Student participation	0.084	0.029	2.878	0.148	0.004	**	
Teacher school connectedness ~							.252
Performance management for academic optimism	0.690	0.055	12.586	0.502	0.000	***	
Parental involvement ~							.413
Performance management for academic optimism	0.853	0.078	10.958	0.642	0.000	***	
Parental participation ~							.162
Performance management for academic optimism	0.586	0.071	8.282	0.403	0.000	***	
Student participation ~							.173
Performance management for academic optimism	0.550	0.058	9.555	0.416	0.000	***	

^a unstandardized coefficient; ^b standard error; ^c *z* value; ^d standardized coefficient; ^e *p* value; ^f significance; ^g explained variance.

ns *p* > .05. **p* < .05. ***p* < .01. ****p* < .001.

Covariance	<i>b</i> ^a	<i>SE</i> ^b	<i>z</i> ^c	β ^d	<i>p</i> ^e	Sig ^f
Scale level						
Collective efficacy ~ Faculty trust in students	0.353	0.035	10.058	0.689	0.000	***
Collective efficacy ~ Faculty trust in parents	0.159	0.024	6.664	0.388	0.000	***
Collective efficacy ~ Collective academic emphasis	0.258	0.029	8.823	0.776	0.000	***
Faculty trust in students ~ Faculty trust in parents	0.317	0.029	10.782	0.684	0.000	***
Faculty trust in students ~ Collective academic emphasis	0.307	0.031	9.878	0.820	0.000	***
Faculty trust in parents ~ Collective academic emphasis	0.171	0.023	7.302	0.570	0.000	***
Parental involvement ~ Parental participation	0.435	0.051	7.643	0.366	0.000	***
Parental participation ~ Student Participation	0.384	0.050	6.266	0.426	0.000	***
Item level						
CE2 ~ CE3	0.232	0.026	9.021	0.531	0.000	***
FTS4 ~ FTP4	0.397	0.041	9.625	0.490	0.000	***
PMAO1 ~ PMAO2	0.279	0.039	7.209	0.376	0.000	***
PI2 ~ PI4	0.460	0.070	6.587	0.338	0.000	***
CAE1 ~ CAE3	0.368	0.047	7.844	0.353	0.000	***
PP1 ~ PP2	0.343	0.055	6.266	0.426	0.000	***
CAE1 ~ CAE2	0.375	0.054	6.996	0.300	0.000	***
PI5 ~ PI6	0.520	0.067	7.782	0.356	0.000	***
FTP1 ~ FTP2	0.160	0.026	6.231	0.482	0.000	***
PMAO3 ~ PMAO6	-0.163	0.035	-4.656	-0.316	0.002	**
PMAO2 ~ PMAO6	0.120	0.039	3.059	0.216	0.002	**
CE5 ~ CAE4	0.144	0.031	4.728	0.277	0.000	***
FTS3 ~ FTS4	0.123	0.024	5.032	0.200	0.000	***
FTP3 ~ PI6	0.253	0.036	7.109	0.355	0.000	***
FTP3 ~ PI5	0.324	0.054	6.039	0.255	0.000	***
CE1 ~ CAE5	0.208	0.047	4.422	0.208	0.000	***

^a unstandardized coefficient; ^b standard error; ^c *z* value; ^d standardized coefficient; ^e *p* value; ^f significance

ns *p* > .05. **p* < .05. ***p* < .01. ****p* < .001.

CE collective efficacy; FTS faculty trust in students; FTP faculty trust in parents; CAE collective academic emphasis; PMAO performance management for academic optimism; TSC Teacher school connectedness; PI parental involvement; PP parental participation; SP student participation

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