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Article abstract

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# Principal Conversation and Teacher Vitality: An Empirical Analysis in Low-Performing Schools

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## Abstract

This article draws on a teacher survey ($n$ = 789) to examine the relationship between teacher vitality and two conversational approaches—transformative leadership conversation and controlling conversation. The analyses use latent structural equation modelling. The sample is restricted to teachers in schools with an accountability rating of "low performing" so that principal/teacher conversations can be examined in schools that potentially have the most to gain from strong teacher vitality. Results indicate that the use of transformative leadership conversation had a direct positive relationship with teacher vitality ($\beta$ = .26) and an indirect relationship ($\beta$ = .22) with it through teacher need satisfaction. Controlling conversation had a negative relationship with teacher vitality, but it did not have a statistically significant relationship with need satisfaction.

## Résumé

Cette étude s'appuie sur une enquête auprès d'enseignants ($n$ = 789) pour examiner la relation entre la vitalité des enseignants et deux approches conversationnelles : la conversation sur le leadership transformateur et la conversation de contrôle. Les analyses recourent à la modélisation d'équations structurelles latentes. L'échantillon est limité aux enseignants des écoles dont la cote de responsabilisation est « peu performante », afin que la conversation directeur/enseignant puisse être examinée dans les écoles qui ont potentiellement le plus à gagner d'une forte vitalité des enseignants.

Curt Adams, Daniel Hamlin, & Olajumoke Adigun. (2024). Principal Conversation and Teacher Vitality: An Empirical Analysis in Low-Performing Schools. *International Journal of Education Policy & Leadership* 20(1). URL: http://journals.sfu.ca/ijepl/index.php/ijepl/article/view/1403 doi:10.22230/ijepl.2024v20n1a1403



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Les résultats indiquent que le recours à une conversation sur le leadership transformateur avait une relation positive directe par rapport à la vitalité des enseignants ($\beta$ = 0,26) et une relation indirecte ($\beta$ = 0,22) par rapport à celle-ci via la satisfaction des besoins des enseignants. La conversation de contrôle avait une relation négative par rapport à la vitalité de l'enseignant, mais il n'y avait pas de relation statistiquement significative par rapport à la satisfaction des besoins.

**Keywords / Mots clés :** teacher vitality, school principals, transformative leadership conversation, controlling conversation, low-performing schools / vitalité des enseignants, directeurs d'école, conversation sur le leadership transformateur, conversation de contrôle, écoles peu performantes

## Introduction

Vitality is considered an essential inner resource for human and group thriving (Nix, Ryan, Manly, & Deci, 1999). Evidence indicates that individuals with high vitality tend to be more actively engaged in their pursuits, express greater satisfaction with work and life, are physically and psychologically healthier, and achieve at higher levels across different conditions (Ryan & Frederick, 2023; Ryan & Deci, 2008; Tummers, Steijn, Nevicka, & Heerema, 2018). In schools, a teacher's vitality, or energy to engage classroom and school life with vigour, zeal, and enthusiasm may be critically important. High-vitality teachers are more likely to persist through tension, cope with stress, become more resilient, and gain more joy from teaching experiences (Carmeli, 2009; Ryan & Deci, 2008). Vitality can thus serve as a resource for supporting teacher and student success.

Schools with greater learning needs and challenges ostensibly have the most to gain from high levels of vitality in teachers. In such schools, teachers may encounter significant pressures to improve student outcomes. They are also often inundated with competing interests, agendas, and programs, and consequently tend to experience complex workplace tensions (Duke, 2012; Schueler, Asher, Larned, Mehrotra, & Pollard, 2022; Viano, Pham, Henry, Kho, & Zimmer, 2021). In these environments, school leaders are thought to play an important role in bolstering teacher vitality (Boardman, 2021; Shirom, 2010). One hypothesized mechanism for enhancing teacher vitality is through conversation. For example, evidence indicates that the nature of supervisor–employee conversations can either activate or deplete vitality in the workplace (Fairhurst, 2008; Frederick & Ryan, 2023; Groysberg & Slind, 2012; Karkkola, Kuittinen, Hintsa, Ryynänen, & Simonen, 2018; Karkkola, Kuittinen, Hintsa, 2019). However, little empirical research has tested how principal–teacher conversations might nurture the positive mental states associated with vitality in teachers.

The purpose of this study is to test the relationship between teacher vitality and two types of principal–teacher conversations—transformative leadership conversation and controlling conversation. By drawing on self-determination theory, the authors theorize that transformative leadership conversation (defined as the integrated use of framing, questioning, deep listening, and affirming language) is associated with greater vitality in teachers. This article's focus on schools designated as "low-

performing" is important because these settings may have the most to gain from high levels of teacher vitality. This study also advances the empirical literature in an emerging area of research.

## Literature review

The literature review examines evidence on the primary concepts of vitality, psychological needs, transformative leadership conversation, and controlling conversation. The review defines these concepts and describes empirical evidence on each concept and their relationships with one another.

### *Conceptualizing teacher vitality*

Vitality research suggests that educational leaders should not overlook its significance (Frederick & Ryan, 2023). As Ryan and Deci (2008) assert, "when we consider that vitality and energy have been associated with greater performance and persistence, as well as psychological and physical wellness, it is clear that vitality represents an important resource whose promotion has multiple benefits" (p. 714). Vitality is a eudemonic state of wellbeing felt as an aliveness, vigour, and calm presence (Ryan & Frederick, 1997); it is an inner physical and mental energy available to the self that activates self-determined and purposive action (Ryan & Deci, 2008; Ryan & Frederick, 1997).

As a eudemonic state, vitality affects the human body and mind differently than hedonic emotions such as joy and happiness. Eudemonic emotions have a high activation function (Dubreuil, Forest, & Courcy, 2014; Uysal, Satici, Satici, & Akin, 2014). Happiness and joy are positive emotions that contribute to wellbeing, but these emotions do not generate the positive energy to activate and sustain optimal brain, mind, body, and behavioural functioning like vitality does (Dubreuil et al., 2014; Uysal et al., 2014). Vitality is associated with increased cognitive health and higher functioning cognitive activity (Yevchak, Loeb, & Fick, 2008), increased exercise and physical activity, healthier diet and nutrition, proactive coping strategies, lower stress, mental health, positive moods, high performance, and reduced illness (Ju, 2017; Kinnafick, Thøgersen-Ntoumani, Duda, & Taylor, 2014; Niemiec, Ryan, Patrick, Deci, & Williams, 2010). Correlational evidence shows that people are healthier, more engaged, productive, and gracious when vitality defines their state of being (Boardman, 2021; Frederick & Ryan, 2023).

Vitality and effective teaching are believed to have a reciprocal relationship. Intrator and Kunzman (2007) surmise that the work, commitment, creativity, joy, curiosity, and motivation that good teachers display comes from an inner energy and determination. Relatedly, finding meaning in one's teaching, feeling accomplished in one's craft, and persisting through difficulties enhances vitality. When teachers are driven by their inner and authentic selves, classrooms and schools are expected to benefit (Cheon, Reeve, & Marsh, 2023; Cheon & Reeve, 2015; Reeve & Cheon, 2021). Yet, vitality is not always activated or active in teachers; it may require ongoing nourishment from the environment and from one's own mental state. Ideal nutrients are social and psychological conditions that appeal to a person's natural propensity for adaptive growth (Frederick & Ryan, 2023).

Teachers in low-performing schools face several threats to vitality. Heightened external pressure and control, unpredictable environments, limited professional support, and intense work demands can leave teachers in low-performing schools frustrated, exhausted, and depleted of authentic energy (Brezicha, Kavanagh, Martin, & Fisher-Ari, 2022; Daly, 2009; Duke, 2012; Olsen & Sexton, 2009). Such conditions explain why low-performing schools are susceptible to higher teacher turnover (Viano et al., 2021), lower qualified and less experienced teachers (Boyd, Lankford, & Wyckoff, 2007), high emotional labour and emotional exhaustion (Richardson, Alexander, & Castleberry, 2008), increased stress, and reduced sleep (Farley & Chamberlain, 2021), lower collective teacher efficacy (Adams & Forsyth, 2009; Goddard, Hoy, & Woolfolk Hoy, 2000), and lower trust in students and parents (Bryk & Schneider, 2002; Tschannen-Moran, 2014).

The consequences of poor working conditions and teacher psychological distress extend beyond observable effects on teachers. Researchers have routinely demonstrated that teacher emotions, attitudes, and behaviours easily spread to students, and in doing so, the energy teachers emit influences the attitudes and energy students bring to the learning process (Hagenauer, Hascher, & Volet, 2015; Mainhard, Oudman, Hornstra, Bosker, & Goetz, 2018; Shen, McCaughtry, Martin, Garn, Kulik, & Fahlman, 2015). When teachers are excited, students are more likely to be excited and interested in learning (Becker, Goetz, Morger, & Ranellucci, 2014). When teachers are curious, students are more likely to be curious (Braun, Schonert-Reichl, & Roeser, 2020). With emotional contagion, teacher mental states can be an asset or liability to transforming conditions in low-performing schools (Frenzel, Daniels, & Burić, 2021).

Tensions and difficulties teachers may experience in low-performing schools are not insurmountable barriers to vitality. What matters is having supportive resources to navigate tensions in growth inducing ways (Boardman, 2021; Shirom, 2010; Tummers et al., 2018). Support does not come from material objects. Rather, support comes from people whose presence and interactions allow positive psychological states to sustain one's inner energy for work, activities, and life (Boardman, 2021).

## Psychological nutrients underlying high levels of vitality

Initial empirical work on vitality activation came from experimental studies on the Ego-Depletion Model by Baumeister and colleagues (see Baumeister, 2003; Baumeister, Bratslavsky, Muraven, & Tice, 1998; Muraven, Tice, & Baumeister, 1998). The Ego-Depletion Model was conceptualized from Freud's (1923) supposition that energy available to the ego is finite. Freud (1923) viewed the ego as the mental intermediary between outer experiences and inner thoughts. The ego is our conscious self; it is the abstract system in our minds where beliefs form, identity is shaped, perceptions emerge, and behaviour originates. Conscious thoughts require energy, and energy expended in one direction can reduce energy available for other thoughts and actions. These notions were the basis of Freud's argument (Baumeister, 2014). Baumeister et al. (1998) later developed the Ego-Depletion Model from this logic. Empirical use of the model has revealed more nuance between the ego and inner energy than Freud theorized.

The first laboratory experiments with the Ego-Depletion Model were performed with university students. In these studies, Baumeister and colleagues manipulated students' mental states to determine how thoughts occupying a person's mind might affect energy available for other tasks (Baumeister, 2003; Baumeister et al., 1998, 2000). Baumeister et al. (1998) found people had less volitional behaviour when they controlled impulses, suppressed emotions, exhibited passive responses, and made choices in a controlling context. Muraven et al. (1998) tested self-regulation for tasks when people were suppressing feelings, restraining intrusive thoughts, and trying to change a habit. Their results revealed that mental and emotional energy spent regulating thoughts and feelings lowered self-regulation on other tasks.

A second strand of experimental studies on ego depletion contrasted controlled behaviour and autonomously motivated behaviour. Like Baumeister and colleagues' laboratory experiments with university students on self-control (see Baumeister, 2003; Baumeister et al., 1998, 2000), findings in these experiments revealed that controlled regulation—whether self-controlled or through external mechanisms—exhausted energy available for subsequent tasks (Frederick & Ryan, 2023). Autonomous regulation had an opposite effect on engagement than controlled regulation. Rather than suppressing effort on subsequent tasks, activities that were autonomously regulated enhanced engagement and persistence in the activities (Moller, Deci, & Ryan, 2006; Muraven, 2008; Muraven Rosman, & Gagné, 2007). The findings led to the conclusion that mental activity does not automatically drain energy from the self, but it can enhance energy under the right conditions (Ryan & Deci, 2008).

With empirical evidence that energy to the ego is more nuanced than what Freud had originally theorized, research turned toward probing general psychological mechanisms behind the enhancement of vitality (Frederick & Ryan, 2023). These studies established psychological needs of autonomy, competence, and relatedness as conduits for vitality (Ryan & Deci, 2008). Autonomy is the need to be self-directed and volitional; it is a psychological state in which actions and outcomes are believed to be self-determined and emergent from one's inner resources (Cheon, Reeve, & Vansteenkiste, 2020; Nalipay, King, & Cai, 2020). Competence is the need for effective functioning; it embodies agency and reflects a mindset in which individuals proactively seek challenging, growth-evoking experiences (Ryan & Deci, 2020). Relatedness is the need for attachment to others and to social groups. It is an affective state in which an individual feels safe, connected, and cared for (Klassen, Perry, & Frenzel, 2012).

Research evidence spanning age groups, tasks, and contexts has been consistent that vitality increases as people feel more autonomous, competent, and related in their activities, pursuits, and surroundings (Ryan & Deci, 2008; Frederick & Ryan, 2023; Vansteenkiste, Ryan, & Soenens, 2020). Psychological states conducive to vitality do not require major shifts in personal circumstances, existential experiences, or epic quests. Vitality comes alive through ordinary interactions that activate psychological needs (Boardman, 2021; Ryan & Deci, 2008). This finding has implications for school principals in that it implies that teacher vitality partly depends on how principals interact with teachers.

## Principal–teacher conversation and teacher vitality

Principal leadership is arguably a conversational process. Gronn (1983) made this case nearly five decades ago when he contended that talk is the central work of principals. Nearly every task facing principals, and the various responsibilities with their work, involves interactions in which information is exchanged through talk and text (Adams, Olajumoke, Fiegener, & Olsen, 2023). Conversation may indeed be the essence of principal leadership, but conversation does not have a unitary structure or process that functions effectively in every task or situation (Fairhurst, 2008; Groysberg & Slind, 2012). There are times when principals need to use direct and assertive language with teachers and there are other times when thoughtful and dialogical interactions are needed (Isaacs, 1999). Alignment between conversation structure and purpose matters for principal leadership (Anderson & Mungal, 2016).

Two approaches to principal–teacher conversations seem particularly salient for supporting or frustrating teacher vitality: transformative leadership conversation and controlling conversation. These conversation approaches are derived from different assumptions about human behaviour and performance, and they have different purposes and structures. Thus, it is useful to define them and to contrast the social psychological processes involved in their use.

Transformative leadership conversation (TLC) is defined as the integrated use of framing, questioning, deep listening, and affirming language to generate sensemaking and learning dialogue. These conversational structures are useful for guiding teachers in re-structuring how they see reality and how they relate to self, others, and the environment (Adams, Olajumoke, Fiegener, & Olsen, 2023). Framing is the planning process that a principal uses to establish a mental representation for how she intends to use questioning, deep listening, and affirming language with teachers (Fairhurst, 2005, 2008). Questioning, deep listening, and affirming language are the active components of TLC. These components are used to start sensemaking and learning dialogue and to keep it in motion during and beyond a conversation (Adams, Olajumoke, Fiegener, & Olsen, 2023).

Isaacs (1999) argues that questioning and deep listening stimulate and sustain dialogue by helping people move from arguing a position to reflecting on their underlining thoughts and beliefs. Berger (2019) found that effective questions can spark re-imaginations, inspire creativity, uncover performance tensions, chart new visions, and engender collective action. Deep listening nurtures and sustains dialogue as information is shared, processed, and reflected on in ways that surface important understandings and lead to purposeful action and continued sensemaking and learning (Marshak, 2019). Questioning and listening drive dialogue (Brookfield, 2011; Isaacs, 1999; Paul & Elder, 2007), but for dialogue to merge meaning and action together, people benefit from direct encouragement, affirmation, and feedback. In affirming language, leaders recognize thoughts and perspectives shared by people while also encouraging, supporting, and inviting people to delve deeper into their thoughts and actions (Marshak, 2019). Berkovich and Eyal (2018) found that affirming language provides a level of emotional support for teachers as they navigate the complexities of their work.

Transformative leadership conversation relies on psychological need–supportive structures. Reflective questions, deep listening, and affirming language facilitate in-

ternal sensemaking and learning, and these processes express value for teacher perspectives, they elicit feelings of sharedness in purpose and pursuits, and they generate internal power for action and change (Adams, Olajumoke, Fiegener, & Olsen, 2023). These conversation structures appeal to teacher inner motivations and in doing so activate the desire and determination within teachers to engage their work with meaning and purpose (Adams, Olajumoke, Fiegener, & Olsen, 2023).

By contrast, controlling conversation is described as transactional, top-down, and compliance oriented (Groysberg & Slind (2012). The purpose is to regulate behaviour of others with language that makes expectations and consequences clear by listening selectively to re-direct actions, giving meaning to the interpretation of events, and affirming commitment and alignment to prescribed plans (Anderson & Mungal, 2016; Groysberg & Slind, 2012). Gronn (1983) and Lowenhaupt (2014) describe examples of controlling conversation in their studies of principal talk. In Gronn's case, he found that a principal controlled a school agenda by using unidirectional, authoritative, and parsimonious talk with teachers and other school administrators. Talk used as control involved simple and clear communication and listening in a way that allowed actions to be re-directed toward expectations. In Lowenhaupt's (2014) study, she found that language appealing to reason, ethics, and emotions motivated teachers to adopt externally mandated instructional and curricular changes in their classrooms.

Controlling conversation can be effective for certain types of tasks and behaviours in organizations (Deci, Olafsen, & Ryan, 2017). Such tasks are generally defined as simple and algorithmic, where people can accomplish a goal by following a clear set of steps and actions (Cerasoli, Nicklin, & Ford, 2014; Weibel, Den Hartod, Gillespie, Searie, Six, & Skinner, 2010). Control works by regulating action with mechanism external to the person. External mechanisms restrict autonomy and limit professional discretion to adapt and adjust to changing dynamics (Groysberg & Slind, 2012). Certainly, there are situations in which controlling conversation is necessary for teachers as they work toward instructional changes, and as described by Gronn (1983) and Lowenhaupt (2014), such structures may have some short-term power to influence teacher actions. However, if external control becomes the overriding approach with teachers, teachers' psychological needs are likely to remain unsatisfied and teacher inner energy for their work unsupported (Ryan, Deci, Vansteenkiste, & Soenens, 2021).

To summarize, existing literature provides useful knowledge for describing the meaning of the concepts in the study and establishing evidence for their plausible relationships. Vitality is a eudemonic state of wellbeing experienced as a sense of aliveness, vigour, and calm presence (Ryan & Deci, 2008; Ryan & Frederick, 1997). Eudemonic states have a high activation function, meaning that they generate strong motivation and energy to engage life and work with vigour and zeal (Dubreuil et al., 2014; Uysal et al., 2014). Thus, teacher vitality is an inner energy and motivation for teaching that activates a sense of self-determined action (Intrator & Kunzman, 2007).

Ryan and Frederick (1997) found that basic psychological needs are catalysts for vitality. These psychological needs include autonomy, competence, and relatedness. Autonomy is feeling volitional and in control over one's circumstances.

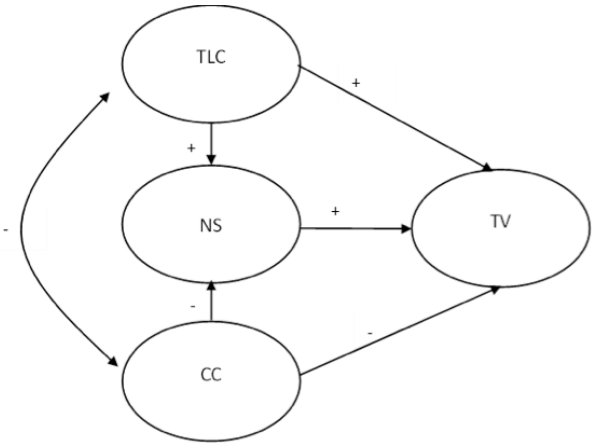
Competence is feeling effective and capable of accomplishing desired outcomes. Relatedness is feeling connected to others and a sense of purpose (Vansteenkiste et al., 2020). When psychological needs are satisfied by the social environment, people engage their work and activities with greater vitality (Ryan & Deci, 2008).

Evidence on vitality formation and psychological need support frame characteristics of principal–teacher conversation that would nurture or constrain these mental states. TLC is a conversation approach that uses framing, reflective questioning, deep listening, and affirming language to generate sensemaking and learning dialogue (Adams, Hamlin, & Adigun, 2023). In contrast, controlling conversation consists of top-down, transactional, and compliance-oriented interactions (Groysberg & Slind, 2012). These two conversation approaches are likely to have different relationships with teacher vitality.

## Hypothesized model

The hypothesized model is presented in figure one. As illustrated, TLC is predicted to have a positive, direct relationship with teacher vitality and an indirect relationship that is mediated by psychological need satisfaction. Controlling conversation is predicted to deplete vitality, both directly and indirectly through a negative relationship with teacher psychological needs. Teacher psychological need satisfaction is predicted to have a positive relationship with teacher vitality.

**Figure 1. Hypothesized relationships among transformative leadership conversation (TLC), controlling conversation (CC), need satisfaction (NS), and teacher vitality (TV).**




The hypothesized direct relationships between TLC and teacher vitality and controlling conversation and teacher vitality are supported with self-determination theory and ego-depletion studies. Self-determination theory explains that social forces, like conversation, are generative for increasing vitality when interactions create a climate of psychological need support (Akin, Akin & Uğur, 2016; Ryan & Frederick, 1997). Transformative leadership conversation structures conversation to be supportive of teacher psychological needs (Adams, Olajumoke, Fiegener, & Olsen, 2023); thus, TLC is predicted to have a positive relationship with teacher vitality. As Baumeister and colleagues (see Baumeister, 2003; Baumeister et al., 1998; Murvan et al., 1998) found in their experimental work, controlled regulation directs one's energy toward external constraints in the work environment, leaving a person with less drive and determination to apply to dedicated tasks and work. Ego depletion

studies imply that controlling conversation, when used regularly, lessens teacher vitality by directing thoughts and energy away from the aspects of teaching that evoke satisfaction and meaning in work (Frederick & Ryan, 2023).

Self-determination theory also explains vitality as a function of generative psychological processes (Frederick & Ryan, 2023). Accordingly, vitality flourishes when autonomy, competence, and relatedness are active mental states. In contrast, frustration of psychological needs constrains vitality by directing energy toward maladaptive thoughts (Ryan & Deci, 2008). Thus, the authors predict that teacher psychological needs mediate the relationships between principal–teacher conversation and teacher vitality. Principals who use questions with teachers to elicit sensemaking and learning dialogue, who listen deeply to teacher experiences and understandings, and who affirm teacher capacity to achieve desired realities cultivate a relational context conducive to developing autonomy, competence, and relatedness need satisfaction (Adams, Olajumoke, Fiegener, & Olsen, 2023). Controlling conversation falls on the constraining side of the equation. Frequent use of conversation as external control is likely to deplete inner energy by frustrating psychological needs.

## Research methods

A correlational design with *ex post facto* data collected in summer 2022 was used to test the hypothesized model. Data came from a random sample of teachers in Oklahoma in the United States. In 2022, the state's certified teacher population was 42,551. We randomly sampled 2,500 of these teachers to generate an adequate analytical sample. Sampled teachers received an electronic survey emailed directly to their email address. A total of three follow-up emails were used with non-respondents. Usable responses were obtained from 1,615 teachers, for a response rate of 65 percent.

A school accountability grade of D or F was used as the indicator of low school performance. Of the 1,615 teachers with usable survey responses, 789 teachers worked in a school that received a school accountability grade of D or F. The final sample for the analysis included these 789 teachers. Seventy-six percent of the teachers identified as white, five percent as Black, four percent as Hispanic, nine percent as American Indian or Alaskan Native, and five percent as multiracial. Eighty-one percent of teachers identified as female and 18 percent as male. Eighty-eight percent of the teachers worked in a Title One school and 12 percent in a non-Title One.

## Measures

### *Transformative leadership conversation*

The Transformative Leadership Conversation Scale (Adams, Olajumoke, Fiegener, & Olsen, 2023) was used to operationalize the structural features of TLC. The scale begins with the prompt "in conversations with me about an aspirational change, my school principal generally," followed by items that operationalize questioning, listening, and affirming language. Sample items include: "Asks questions that allow me to think about assumptions I make in my work," "Listens to understand what I am experiencing," and "Recognizes the work I do with encouragement." Items use a five-point Likert response set ranging from 1 – Never to 5 – Always. The six items used for this study have strong internal consistency as indicated with a Cronbach alpha of .97.

### *Teacher vitality*

Teacher vitality was measured with 4 items from the Subjective Vitality Scale developed by Ryan and Frederick (1997). The scale measures the degree to which people feel alive, alert, and vigorous in life. Items were adapted by making the teaching context the referent: "I feel alive and vital in the work we are doing at my school," "I feel very energized by the work we are doing at my school," "I have energy and spirit when I am at school," and "I look forward to each new day at my school." Items used a five-point Likert response set that ranged from 1 – Never to 5 – Always. A Cronbach alpha of .90 indicates good item consistency.

### *Psychological need satisfaction*

Teacher psychological need satisfaction was measured with four items from the Basic Psychological Need Satisfaction at Work Scale (Deci, Ryan, Gagné, Leone, Usunov, & Kornazheva, 2001; Longo, Gunz, Curtis, & Farsides, 2016). Items were adapted to fit the teaching contexts. Sample items included: "At school, I feel a sense of freedom in the things I undertake," "I feel I can teach students no matter the circumstance," and "I feel my choices in teaching express who I really am." A five-point Likert response set was used with responses ranging from 1 – Not at All True to 5 – Very True. A Cronbach alpha of .83 indicates good item consistency.

### *Controlling conversation*

Controlling conversation is direct, transactional, and unidirectional (Groysberg & Slind, 2012). Three items were used to measure controlling conversation: "My principal uses conversation to control how I implement change," "My principal tells me how s/he wants me to change my practices," and "My principal doesn't show any interest in listening to what I have to say." Item consistency was strong with a Cronbach alpha of .89.

## Analysis

The hypothesized model was tested with a fully latent structural equation model in AMOS 28.0 using robust maximum likelihood. Robust maximum likelihood was the chosen estimation method because it is robust to violations of non-normality and can be used with ordinal Likert-type items (Finney & Distefano, 2006). Measurement models for each variable allowed for an assessment of measurement error in the analysis. Mediation was evaluated with the Sobel Test (Preacher & Hayes, 2008). Estimates used for the Sobel Test came from the direct and indirect effects of TLC on vitality.

Assessment of model fit was considered using Hu and Bentler's (1999) recommendations and include common fit indices such as the model's scaled chi-square value, the comparative fit index (CFI > .95), the standardized root mean residual (SRMR < .08), and the root mean square error of approximation (RMSEA < .06). Parameter estimates were examined to test the strength of the hypothesized structural relationships among the variance and co-variance of the sample data.

## Results

Descriptive and correlational data are presented in Table one. Mean scores for teacher

vitality, need satisfaction, TLC, and controlling conversation are item averages for the composite measure. These scales ranged from 1 to 5, allowing for a comparison of means for each variable. Need satisfaction had the highest average with a mean of 3.78, followed by teacher vitality with a mean of 3.48, TLC with a mean of 3.2, and controlling conversation with a mean of 2.64. Teachers in the sample averaged nearly 16 years of teaching experience and seven years in their current school. Most teachers identified as female (81%) and white (76%).

**Table 1. Descriptive statistics and bivariate correlations for teacher variables**

| Teacher Variables | Mean | SD | α | Vitality | NS | TLC | CC | YrSch | YrTch | Female | White |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vitality | 3.48 | .81 | .90 | - | .64** | .55** | -.49** | .00 | .08 | -.05 | -.05 |
| NS | 3.78 | .96 | .83 | | - | .40** | -.31** | .05 | .16* | -.10* | -.04 |
| TLC | 3.20 | 1.10 | .97 | | | - | -.73** | -.01 | .03 | -.05 | .02 |
| CC | 2.64 | .59 | .89 | | | | - | .01 | -.08* | -.01 | .00 |
| YrSch | 7.18 | 7.65 | - | | | | | - | .53** | -.05 | .07 |
| YrTch | 15.91 | 10.48 | - | | | | | | - | -.04 | .01 |
| Female | 81% | | - | | | | | | | - | -.03 |
| White | 76% | | | | | | | | | | - |

*Notes:* $**p < .01$, $*p < .05$. $N = 789$. Means for the measured variables are the average item response for survey questions. YrSch reports the average number of years teachers had been teaching in their current school. YrTch reports the average number of years in the teaching profession. CC is principal controlling conversation. NS is psychological need satisfaction.

Bi-variate correlation coefficients report very weak relationships between teacher characteristics and the primary variables in the study (e.g., vitality, need satisfaction, TLC, and controlling conversation). The only statistically significant relationships were between need satisfaction (NS) and years teaching (YrTch) ($r = .16$, $p < .05$), need satisfaction (NS) and female ($r = -.10$, $p<.05$). Although statistically significant, the nominal strength of the relationships did not warrant including teacher variables in the structural equation model.

Relevant to the hypothesized model, bi-variate correlations lend initial support for the theoretical argument. First, vitality had strong, positive associations with need satisfaction (NS) ($r = .64$, $p < .01$), TLC ($r = .55$, $p < .01$), and controlling conversation (CC) ($r = -.49$, $p < .01$). Second, need satisfaction (NS) had a moderate positive relationship with TLC ($r = .40$, $p < .01$), and a moderate, negative relationship with controlling conversation (CC) ($r = -.31$, $p < .01$). Finally, TLC and controlling conversation (CC) had a strong, negative relationship ($r = -.73$, $p < .01$).

Results of the structural equation model are presented in Tables 2 and 3 and Figure 1. These findings provide evidence to assess the extent to which the hypothesized relationships were observed with data from teachers in this study. Model fit reports the extent to which the variance and co-variance among variables in the model align with the hypothesized specification. Fit indices when examined collectively support good model fit. Chi-square ($X^2 = 391.32$, $df$ 113, $n = 789$, $p < .01$) was statistically significant but the comparative fit indices fell within the range of good model fit: RMSEA was .05 with a 90 percent confidence interval of .05 to .06.

Comparative Fit Index (CFI) was .97. Normative Fit Index (NFI) was .96, and the Tucker Lewis Fit Index (TLFI) was .96.

**Table 2. Model fit indices for the fully latent structural equation model**

| Fit Index | Criteria | Observed Model |
|---|---|---|
| Chi-Square | Non-Significant | 391.32** |
| RMSEA | <.05 | .05 |
| NFI | >.95 | .96 |
| CFI | >.95 | .97 |
| TLFI | >.95 | .96 |

*Note:* ** p<.01; *N* = 789

Table 3 reports results of the measurement models. As reported, all observable variables loaded strongly on their theorized latent construct, lending support for the structural validity of the items used to measure the primary constructs of the study. Except for two need satisfaction items, standardized coefficients for all latent variables were above .70, meaning that the latent constructs explained greater than 50 percent of the variance in the items. Of note are the strong factor loadings for TLC. Transformative leadership conversation items had standardized coefficients at .78 or above, supporting the conceptualization that conversational structures of questioning, listening, and affirming language are interrelated within the discursive interactions between principals and teachers.

**Table 3. Parameter estimates for latent variable and items, unstandardized coefficients (standard errors), standardized coefficients, and significance levels for the measurement models of the full structural equation model**

| Parameter estimate | *b* | *β* | *p* |
|---|---|---|---|
| TLC: Asks questions that allow me to think about assumptions I make in my work. | 1.00 | .80 | |
| TLC: Asks questions that allow me to reflect on multiple thoughts and interpretations about my work. | 0.94 (.03) | .78 | < .001 |
| TLC: Listens with curiosity to what I have to say. | 1.18 (.04) | .89 | < .001 |
| TLC: Listens for how I might improve. | 1.21 (.04) | .90 | < .001 |
| TLC: Recognizes the work I do with encouragement. | 1.22 (.04) | .86 | < .001 |
| TLC: Tells me I can be effective in the changes I am making in my work. | 1.13 (.04) | .83 | < .001 |
| NS: At school, I feel capable at what I do. | 1.00 | .84 | |
| NS: I feel my choices in my teaching express who I really am. | 1.24 (.07) | .63 | < .001 |
| NS: At school, I feel a sense of freedom in the things I undertake. | 1.12 (.07) | .65 | < .001 |
| NS: I feel I can teach students no matter the circumstances | 1.42 (.07) | .75 | < .001 |
| CC: Uses conversation to control how I implement change. | 1.00 | .67 | |
| CC: Tells me how she/he wants me to change my practices. | 1.50 (.06) | .95 | < .001 |

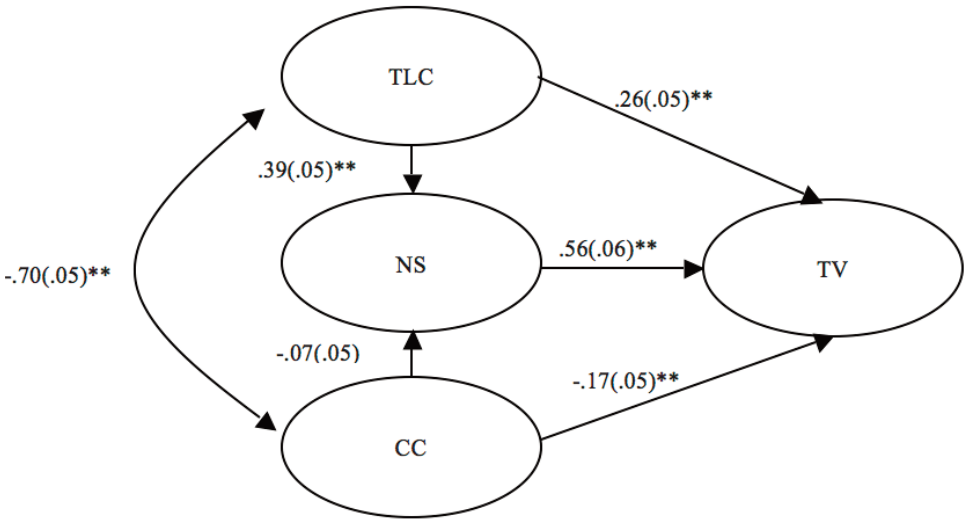
**Table 3 (continued)**

| Parameter estimate | *b* | *β* | *p* |
|---|---|---|---|
| CC: Doesn't show any interest in listening to what I have to say | 1.44 (.06) | .94 | < .001 |
| TV: I feel alive and vital in the work we are doing at my school. | 1.00 | .84 | |
| TV: I feel very energized by the work we are doing at my school. | 0.99 (.04) | .81 | <.001 |
| TV: I have energy and spirit when I am at school. | 0.93 (.03) | .87 | < .001 |
| TV: I look forward to each new day at my school. | 1.00 (.03) | .85 | < .001 |

*Note: N* = 789. CC, controlling conversation; NS, need satisfaction; TLC, transformative leadership conversation; TV, teacher vitality.

Standardized parameter estimates with standard errors in parentheses are reported in Figure 2. As hypothesized, need satisfaction (NS) had a strong positive relationship with teacher vitality (TV) ($\beta$ = .56, $p$ < .01), explaining about 31 percent of the variance. Transformative leadership conversation had a positive relationship with teacher vitality (TV) ($\beta$ = .26, $p$ < .01) and controlling conversation (CC) a negative relationship ($\beta$ = -.17, $p$ < .01). TLC also had a moderate, positive relationship with need satisfaction (NS) ($\beta$ = .39, $p$ < .01), whereas the relationship between controlling conversation (CC) and need satisfaction (NS) was not statistically significant.

**Figure 2. Full structural equation model accounting for the relationship among transformative leadership conversation (TLC), need satisfaction (NS), controlling conversation (CC), and teacher vitality (TV).**




*Notes:* Parameter estimates are standardized values with standard error reported in parentheses. ** $p$ < .01. The standardized indirect effect of TLC on teacher vitality was .22 and the total effect was .22 and the total standardized effect was .48. Squared multiple correlation for teacher vitality was .62.

The theoretical reasoning behind the hypothesized model specified an indirect relationship between TLC and teacher vitality (TV). Results support this proposition. The standardized indirect effect of TLC on teacher vitality (TV) was .22 with a standardized total effect of .48. A statistically significant Sobel test (5.98, $p$ < .001) indicates that TLC works through need satisfaction (NS) to influence teacher vitality (TV). The combined model explained approximately 62 percent of the variance in teacher vitality.

In summary, consistent with the hypothesized model, need support had a strong, positive relationship with teacher vitality. Transformative leadership conversation had both a direct relationship with teacher vitality and in indirect relationship, working through teacher need satisfaction. Controlling conversation had a relationship consistent with the hypothesized model, and need support had a strong positive relationship with teacher vitality. TLC had both a direct relationship with teacher vitality and in indirect relationship, working through teacher need satisfaction. Controlling conversation had a negative relationship with TLC but it did not have a statistically significant relationship with need satisfaction. Next, these findings are used to advance knowledge claims on TLC and teacher vitality.

## Discussion

The empirical results indicate that teachers reported higher vitality when they experienced more frequent use of TLC from principals, whereas teachers reported lower vitality when they experienced more controlling conversation. The relationship between TLC and vitality was mediated by psychological need satisfaction. Of additional interest is the strong negative relationship between TLC and controlling conversation ($r$ = -.70). This finding suggests that teachers experienced principals as either using elements of TLC or using controlling conversation, not a mixture of both. We discuss these findings within the context of self-determination theory before describing potential implications for leadership practice.

### *The transformative leadership conversation—vitality relationship examined through self-determination theory*

The functions of TLC and controlling conversation align with experimental and non-experimental evidence on vitality depletion and enhancement. Recall from the literature review that the first ego-depletion studies found that placing subjects in situations that required mental thoughts other than the task at hand depleted energy exerted on the targeted task (Baumeister, 2003, 2014). Subsequent studies designed around self-determination theory found that external situations mattered for vitality, but these situations had differential effects depending on people's experience within the context (Ryan & Deci, 2008). Situations experienced as self-regulating enhanced vitality and situations experienced as controlling reduced it (Frederick & Ryan, 2023).

The different associations observed for TLC and controlling conversation align conceptually as well. Transformative leadership conversation facilitates self-regulation by using questions to engage teachers in reflecting on their work, by listening to understand the thoughts and feelings behind teachers' experiences, and by recognizing and affirming teachers as capable and competent (Adams, Olajumoke, Fiegener, & Olsen, 2023). These conversational structures are intended to harness the capacity within teachers to work through tensions and struggles that occur when trying to transform social realities (Adams, Olajumoke, Fiegener, & Olsen, 2023). Controlling conversation works differently than TLC. Controlling conversation assumes that power for change comes from sources external to teachers (Anderson & Mungal, 2016; Groysberg & Slind, 2012). With this assumption, conversation is used to align behaviour with externally derived structures. Whereas controlling conversation relies

on formal power and authority, TLC assumes that optimal human performance is driven by the activation of people's innate psychological resources (Adams, Olajumoke, Fiegener, & Olsen, 2023).

The path between TLC and teacher vitality appears to work through psychological needs. As predicted, teacher psychological needs of autonomy, competence, and relatedness had a strong, direct relationship with teacher vitality, explaining approximately 31 percent of the variance. This finding is consistent with existing research. When psychological needs are satisfied, people tend to enjoy a resonance with their authentic self, and this resonance is a strong source of vitality (Frederick & Ryan, 2023; Ryan & Deci, 2016). Not surprisingly, TLC had a strong positive relationship with teacher psychological needs, whereas controlling conversation was not related. TLC is a conversational approach designed to activate autonomous motivation and action in people (Adams, Olajumoke, Fiegener, & Olsen, 2023). It does so by generating sensemaking and learning dialogue through the intentional use of questioning, listening, and affirming language. Given the strong relationship between TLC and teacher psychological needs, it is reasonable to assume that questioning, listening, and affirming language can generate social and psychological conditions that arouse teacher autonomy, competence, and relatedness.

The empirical results raise interesting questions for future research about the relationship between principal–teacher conversation and teacher vitality. One area of inquiry relates to factors behind the frequent use of TLC and controlling conversations. For example, it would be valuable to understand what leads principals to adopt a questioning/listening/affirming language approach to conversations with teachers. Similarly, it would be useful to understand why external control is used with teachers. This inquiry brings into question the dynamic relationship between conversation structure and teacher vitality. A second area might consider support for teacher vitality beyond the principal. With this focus, it would be useful to understand the unique relationship between TLC and vitality relative to support from teaching colleagues or even perceived cooperation of students.

### *Implications for leadership practice*

In returning to the purpose of this study—to understand how school principals might support teacher vitality in low-performing schools—we can advance three potential implications. First, low-performing schools are not necessarily inhospitable to teacher vitality. These schools, like all schools, feel pressure and tension from the external environment; they have difficulties and challenges, yet as Boardman (2021) states, vitality can grow through stress and difficulties. The evidence in this study supports such a claim. With a sample mean of 3.48, many teachers reported feeling alive and vigorous in their work. Further, variability in vitality associated with leadership conversations indicates that the mental state is malleable within organizational contexts.

Second, school principals can shape teacher vitality through conversation. The empirical results suggest that social mechanisms activated through different conversation structures had differential associations with vitality. In theory, the conversational structures of TLC are intended to situate power and control for teaching and

learning within the inner resources and capacity of teachers (Adams, Olajumoke, Fiegener, & Olsen, 2023). This is not the case with controlling conversation. Control uses the authority of the leader to regulate actions. Undoubtedly, educational leaders will need to use controlling conversation, but if control becomes the dominant discursive structure, it can be detrimental to teacher vitality and other inner resources.

Finally, teacher psychological needs appear to be powerful activators of teacher vitality. When teachers feel autonomous in their work and competent in their teaching, and have a sense of relatedness to others, they are disposed to feeling alive and vigorous. TLC reaches teacher psychological needs by using questioning, listening, and affirming language to generate sensemaking and learning dialogue. Such dialogue happens between leaders and teachers, as well as within the minds of teachers as they engage in and reflect on their work.

## Conclusion

In returning to the research question, the evidence indicates that principal–teacher conversation may support or constrain vitality of teachers in low-performing schools. Transformative leadership conversation had a supportive relationship with vitality, operating through psychological needs to activate teachers' inner energy for their work. Conversely, teacher vitality was lower for teachers who reported more frequent controlling conversations with their principal. Thus, principal-teacher conversation in low-performing schools likely matters for teacher vitality, with more frequent use of reflective questions, deep listening, and affirming language being capable of supporting vitality.

This study is not without limitations. First, the research design was correlational and based on *ex post facto* cross-sectional data. Future research can test the relationship between TLC and vitality with intervention studies that examine how changes in use of TLC might be related to changes in teacher vitality. Second, the parameter estimates report the strength and direction of relationships, but we cannot rule out the possibility that unaddressed rival hypotheses might confound the strength of the relationships with the observed data. Future research can test models that include other leadership practices as well as social conditions and structures that may support or constrain vitality. A final limitation is the potential reciprocal relationship between need satisfaction and vitality. Self-determination theory implies that activated psychological needs are antecedent to vitality (Deci & Ryan, 2008; Frederick & Ryan, 2023), but we cannot rule out in this study that the relationship is not bi-directional.

In conclusion, this study brings two underutilized concepts into school leadership literature. Vitality for its part draws attention to a natural eudemonic state in people that when activated is a dominant source of human thriving (Frederick & Ryan, 2023). Activation is controllable by school principals and occurs through relationships that satisfy teacher psychological needs. TLC for its part organizes the discursive aspect of leadership around structures that facilitate sensemaking and learning dialogue (Adams, Olajumoke, Fiegener, & Olsen, 2023). It is a controllable social process, and as demonstrated in the results, its use by school principals has the capacity to nurture vitality by supporting psychological needs. Together, vitality

and TLC may help shift leadership practices toward social and psychological conditions that bring about optimal learning and performance in schools.

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