Master's Theses and Capstone Projects

Theses and Capstone Projects

5-2017

Factors in Public School Settings that Result in Teacher Agency

Jessica Hadid
Dominican University of California

Follow this and additional works at: http://scholar.dominican.edu/masters-theses

Part of the Educational Administration and Supervision Commons, Educational Assessment, Evaluation, and Research Commons, Educational Leadership Commons, Educational Methods Commons, Educational Psychology Commons, Educational Sociology Commons, Higher Education Commons, Industrial and Organizational Psychology Commons, Place and Environment Commons, Secondary Education Commons, Social and Philosophical Foundations of Education Commons, and the Teacher Education and Professional Development Commons

Factors in Public School Settings that Result in Teacher Agency

Jessica Hadid

Submitted in Partial Fulfillment of the Requirements for the Degree

Master of Science in Education

School of Education and Counseling Psychology

Dominican University of California

San Rafael, CA

May 2017

SIGNATURE SHEET

   This thesis, written under the direction of the candidate's thesis advisor and approved by the Chair of the Master's program, has been presented to and accepted by the Faculty of Education in partial fulfillment of the requirements for the degree of Master of Science. The content and research methodologies presented in this work represent the work of the candidate alone.

Jessica Hadid   May 12, 2017
Candidate   Date

Madalienne F. Peters, Ed.D.   May 12, 2017
Thesis Advisor   Date

Robin Gayle, Ph.D.   May 25, 2017
Acting Dean   Date

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

ABSTRACT

A quality system for educating a nation's youth depends upon a teaching force that continually learns, and applies its learning outcomes to active problem solving and development. Many current school and district models minimize teacher ability to engage in meaningful change, ultimately undermining the teachers' sense of personal and professional agency. Literature suggests that internal forms of motivation are likely to result in the development of agency via self-determination of actions and behaviors. This mixed methods study examined five public schools in a small K-12 district through the lens of self-determination theory. An initial set of quantitative data were collected from 28 teachers to determine levels of satisfaction and frustration for autonomy, competence, and relatedness needs. Qualitative data were collected through eight interviews to provide descriptive detail on teacher experience. All data were analyzed using a self-determination theory framework. Development of teacher agency was assessed at three levels: Agency at the individual classroom level, agency in collaborative settings, and agency with regard to site leadership. Findings point to twelve operative factors that developed or encumbered teacher agency within the district.

Keywords: agency, autonomy, autonomous motivation, internal motivation, proactive, self-efficacy, self-determined

CHAPTER 1 TEACHER AGENCY

A challenging but formative opportunity made up my first year of teaching. It shaped my identity as a teacher and my self-efficacy as a player in the broad system of learning. The position was teaching English in a large urban district of northern California. I replaced a series of long-term substitutes who had each allegedly been "run out" by their students. The job consisted less of teaching English and more of teaching behavioral norms. My role was to keep order and to prevent altercations; language arts was a secondary concern.

One chink of beauty existed in this predicament: it was the freedom I would inadvertently be afforded with regard to curricula. This included the right to select literature and other reading material that spoke to *my* students, and not to the accumulative average of every fifteen-year-old in California. This freedom meant the opportunity to spend a full hour reading spoken word poetry considered too edgy for my students' ears, or the opportunity to stage a debate on the way law enforcement handled youth defiance. In a strange irony, the absence of any academic expectations for these students resulted in the opportunity to diverge from the largely scripted curricula my colleagues at the same school were required to follow. Little to no inquiry was made into the day-to-day occurrences in my classroom. No walk-throughs, no administrators with clip boards. As long as I maintained an outward appearance of being in control there was minimal oversight into my practices as a teacher. As a result I felt confident in taking reasonable risks, trying new ideas, and making productive mistakes. What I gained in classroom skills was invaluable, especially for a first year teacher. The experience led to my development of

professional agency, and ultimately to my decision to conduct research on how others might develop theirs.

STATEMENT OF PROBLEM

Too many teachers in the realm of public education today exhibit low levels of professional agency. Agency, referred to throughout this paper, is defined as the capacity, desire, and will to act in the face of a perceived need for change. The concept of agency lacks a common definition among scholars, specifically in the context of education; the working definition above was constructed by the researcher in response to this explanatory gap (Matusov, Duyke, & Kayumova, 2016). The concept of agency in this study is applied to public school settings, and to any need for change a teacher might perceive therein. Because public education is designed by, and maintained within a hierarchical system of individuals and entities, it is not highly responsive to needs that develop at the individual site. Those sites are largely staffed by teachers. As such, it falls to teachers to address many needs – from individual student needs to the needs of broad groups of colleagues and stakeholders. Teachers, as key players in the system, are well positioned to address such needs. At some sites this occurs readily, but at others teachers exhibit a disempowered or even passive stance in the face of needed change.

PURPOSE STATEMENT

The purpose of this study is to identify key factors that lead to and encumber the development of teacher agency in school settings; it exists within a broad effort to empower

individual teachers – and teams of teachers – to design and implement strategic and needed

change from the bottom, up. When persistent factors leading to teacher agency have been tested

for and identified, teachers, administrators, and support personnel can begin to actively design

and plan for their sustained existence in places of education. Schools must foster and showcase

engaged, innovative practice at all levels. Most importantly, they must exhibit these practices

among their teachers, who act as role models for students on a minute to minute basis. If our

system of public education endeavors to instruct and inspire those who will inherit the grave

challenges we now face as a people, it must demonstrate sufficient agency to shape its own

trajectory. Teachers – the heart of our education system – ought to be at the helm of the effort

toward systemic transformation.

RESEARCH QUESTION

This research is driven by the question: What factors or combinations of factors

contribute to and encumber teachers' development of agency in public school settings? The

inquiries follow three related paths: Teacher experience at the individual or classroom level,

teacher experience at the collaborative level, and teacher experience in relation to site leadership.

THEORETICAL RATIONALE

The theoretical basis for the research herein is self-determination theory, proposed by

Ryan and Deci (1985, 2000b) as a meta-theory of human motivation and well-being. Self-

determination theory (SDT) incorporates and makes use of six previously established theories

including cognitive evaluation theory (Deci, 1975) and organismic theory (Ryan & Deci, 2000a).

SDT is concerned with the ways that social and cultural factors in a given social context support or obstruct an individual's sense of volition, initiative, and well-being. The theory suggests that satisfaction of three psychological needs – autonomy, competence, and relatedness – leads to increased volition and a higher quality of output, specifically with regard to performance, persistence, and creativity. SDT argues that when any of these three psychological needs is not satisfied within a given social context over time, there will be a significant and detrimental impact on the overall wellness of that context, as well as a decreased level of internal motivation among members of the social context. The resulting self-determined behavior described above is akin to agentic behavior, and is considered as such throughout the study.

This research explores the degree to which the three psychological needs of autonomy, competence, and relatedness are satisfied for teachers in five schools; it also determines how those needs were satisfied or frustrated, ultimately presenting a succinct set of operative factors. Quantitative and qualitative data were collected using instruments associated with, and constructs that make up self-determination theory. A SDT framework will guide all analysis.

BACKGROUND AND NEED

This research is embarked upon with a key assumption in place: that our current system of public education is experiencing a dearth of educators who exhibit the necessary agentic qualities to affect meaningful and needed change, but that it is possible to consciously transform this dynamic by identifying, constructing, and normalizing the factors that lead to teacher agency within the job itself, and in the overall work climate of a school community. In recent decades,

considerable research has sought to identify drivers and inhibitors of personal and collective agency in an array of organizational settings, and from various theoretical vantage points.

Roth, Assor, Kanat-Maymon, and Kaplan (2007) identified processes that promote transfer of agency from motivated teachers to motivated students, demonstrating the feasibility of a task crucial to the functioning of the larger system. The study was the first to generate quantitative data to support what was previously a well-established assumption. The findings underpin the current study by establishing in clear terms the role that autonomously motivated teachers play in the effort to transform our system of education into one that both values and cultivates self-directed learners.

Other research extends already established findings and theory on self-determined behaviors and agency development, paving the way for an examination of transformative methodologies. In one study Bridwell-Mitchell (2015) explored the role of teachers as institutional change agents, positing the notion that "institutionalized instructional practices are maintained or changed by two distinct sets of teacher activities" (p.141): a) a set of oppositional activities which are characterized as *maintaining* institutions, and b) a set of cooperative activities which are characterized as *changing* institutions. The study attempts to define what makes up an appropriate and constructive balance between these sets of teacher activities, thereby facilitating further research into the necessary components of institutional changemaking in what the author suggests are "slow to change" public schools. Bridwell-Mitchell (2015) theorizes that these institutions are slow to change due to a complex network of forces, and that for change to occur in such a setting, a delicate balance between the forces must be struck. Specifically, she asserts that three mechanisms drive what she terms "practical evaluative

agency," a type of agency best suited to affect such change: a) peer learning; b) social interactions; and c) shared instructional understanding, aims, and practices. Managing the tension generated by each mechanism and striking an effective balance between their forces enables change; lack of such counterbalancing of tensions promotes the opposite of change, what Bridwell-Mitchell (2015) calls "institutional persistence" (p. 142).

In her examination of teacher as changemaker the researcher builds a compelling case for how such a role is formed, and how it is not. A key need toward such an agenda is determining and making use of factors, which develop agency across the teaching force.

SUMMARY

There is an increasing need in public schools for educators who possess the capacity, desire, and will to act in the face of a perceived need for change. This quality in teachers, referred to throughout this paper as *agency*, is a necessary factor in what Bridwell-Mitchell (2015) refers to as institutional changemaking. Agentic teachers are positioned to design and implement grassroots strategic change across their own sites, and collectively across the educational landscape. They act both as role models for their students – whom, research shows, are directly and positively influenced by their agentic stance – and as engines of inquiry and innovation for the larger institution of learning. Without them these institutions continue along the path of "sustained persistence," bowing to the inertia of established traditions (Bridwell-Mitchell, 2015). Through a framework of SDT this research assesses levels of teacher agency at five sites, and attempts to isolate the factors, which have led to its development or encumbrance.

CHAPTER 2 REVIEW OF THE LITERATURE

This review of the research on factors related to the development of agency is divided into five section. The first section provides a historical context for the development of SDT (self-determination theory); the second section explains the key constructs that make up SDT as it applies to teacher agency. The final three sections focus specifically on the application of a SDT framework to the context at hand: schools. These sections examine more recent studies, undertaken by researchers across the globe, to enhance the growing knowledge base around human agency. The three foci here include: a) agency for the individual teacher in a classroom, b) teacher agency in collaborative settings, and c) teacher agency as it relates to site leadership.

HISTORICAL CONTEXT

Theories around what shape the behaviors, intentions, and actions of human beings have long contributed to a trajectory of scholarship and discovery. Industrial and organizational psychology gives this category of inquiry the informal but overarching title of *motivation theory*. Motivation can be defined here as "the energetic forces that originate both within as well as beyond an individual's being that influence the initiation, direction, intensity, and duration of action" (Kanfer & Chen, 2016, p. 7). While SDT (Ryan & Deci, 2000a) provides the general framework for this inquiry into the factors that lead to or encumber the development of teacher agency, the theory was developed both alongside and as a result of a number of other researchers' lines of inquiry and resulting theories.

Late 19th century psychologists believed human beings were essentially programmed to behave in specific ways, and that the environmental cues to which they were subjected acted as behavioral determinants (Petri & Govern, 2012). By the early twentieth century researchers began to explore a wide array of different possibilities to explain the mechanisms of motivation. By mid-century Maslow (1943, 1954) had developed his need hierarchy theory, proposing the existence of five tiers of human needs: Physiological, safety based, love and belonging, esteem, and self-actualization needs. Any need on a lower tier, he suggested, must be met before the need above it could be satisfied. McClelland (1986) also identified fundamental human needs, but suggested these needs were primarily learned from an individual's culture, hence the title of his theory: learned needs theory. When one of the three identified needs was strong in an individual, McClelland (1986) theorized that need had the potential to drive the individual's behavior, eventually reaching satisfaction of the need. There is a notable correlation between the three needs identified by McClelland (1986) -- achievement, affiliation, and power -- and those at the heart of SDT: Autonomy, competence, and relatedness.

Alderfer's (1969) existence-relatedness-growth (ERG) theory built upon Maslow's by reorganizing the five needs into three more general categories – existence, relatedness, and growth – positing that the rigid hierarchy of Maslow's theory was overly simplified; the dissatisfaction of one need should not necessarily preclude the satisfaction of another. While Alderfer's work presented a significant critique of Maslow's work on needs during its initial publications in the late sixties and early seventies, later review of ERG theory subdued scholarly interest (Kanfer & Chen, 2016, p. 8).

By the 1970s a transition was underway in the methods by which learning and motivation were examined. Until this time research depended on "self-reported" motives; now scholarship would move in the direction of examining implicit, or unconscious, motivations in individuals, including their self-beliefs regarding personal capabilities. Bandura (1977) worked to reveal the factors that led to learning and behavioral change, highlighting the unique roles that cognition and self-regulatory processes played in affecting and sustaining behavioral change. Bandura's (1991) social cognitive theory pointed to human agency as a key determinant in affecting behavioral change, identifying its four most distinguishing facets: Intentionality, forethought, self-reactiveness, and self-reflectiveness. A new paradigm had emerged, and it featured the individual as a key architect of his or her dynamic existence in an influential but not "all powerful" environment. Bandura's claim that "[t]he agentic capacity enables people to take a hand, individually and collectively, in shaping the character of their lives and social systems" would be met with initial resistance, but in time would come to be accepted by the general scholarship surrounding learning and motivation theories (Bandura, 2004, p. 618).

In the same era, Deci and others (Deci, 1971, 1972; Lepper, Green & Nisbett, 1973) undertook a series of studies, which attempted to isolate the factors in the development of intrinsic and extrinsic motivation in individuals. The foci in these studies centered on the implications of external rewards on the internal forces that guide a course of action. These and related inquiries led to the development of Deci's cognitive evaluation theory, which asserted that when a reward was introduced into a task related situation, there would be a redistribution of the agent's perceived locus of causality (Deci, 1972). More specifically, once an isolated action was combined with a resulting reward, the individual undertaking that action would perceive his

or her action to be under the control of external forces in the environment, rather than under the control of him or herself. Research by Deci and colleagues suggested that such a change in the perceived locus of causality would result in the individual cognitively reevaluating the activity, thereby rendering the activity to be one performed expressly *for the attainment* of the external reward with which it was associated. Research suggested the reevaluation and renewed conclusion would result in decreased levels of intrinsic motivation. Cognitive evaluation theory came to play a key role in Ryan and Deci's (2000b) academic inquiry, resulting in a meta-theory they would call self-determination theory.

KEY TENETS OF SDT AS IT APPLIES TO TEACHER AGENCY

The current study applies SDT to a set of five schools in a single district as a means to determine whether the satisfaction or frustration of three psychological needs in teachers correlate to their levels of agentic behavior and self-perceived levels of professional agency. While much of the literature reviewed herein uses or refers directly to SDT, it does not do so with exclusivity. This research, while grounded in SDT, focuses upon the development or encumbrance of agency in public school teachers, and as such pulls from an array of scholarly perspectives that align with that purpose.

This section is concerned with contextualizing SDT as it applies to the concept of teacher agency. Because the theory has an array of components that are key to the understanding of this study, they are organized below into three subsections: *Autonomy-supportive versus controlling behavior*, *the motivation spectrum*, and *Three innate psychological needs*. The literature cited in

each subsection here is not a study per se, but a review and synthesis of work that led to and informed the construct being explained.

Autonomy-supportive versus controlling behavior. One key construct in SDT is the interplay between autonomy-supportive behavior and controlling behavior, usually with regard to managers toward their subordinates. An important milestone in the development of the theory was Deci and Ryan's (1987) publication of a research review that synthesized an array of laboratory experiments and field studies, making clear the constructs of autonomy-supportive versus controlling behaviors and contexts, as well as the implications for institutions. According to the researchers, autonomy itself "connotes an inner endorsement of one's actions" along with the sense that those actions "emanate from oneself and are one's own" (p. 1025). A fundamental feature of autonomous action is the presence of true choice. In controlled actions the presence of choice is encumbered by external forces upon the individual (e.g. the desire for parental approval, thirst for public acclaim, fear of impending consequence). In controlled actions the individual is compelled by an external force to make one choice over another. Deci and Ryan (1987) note that supportive or controlling behaviors can have heightened effects when a power differential exists between the provider and the receiver of the behavior, such as those that exist between a principal and a teacher, or a parent and a child.

While the distinction between autonomy-supportive versus controlling behavior was initially established in previous work (Deci & Ryan, 1980), the comprehensive review discussed here is notable for its identification and examination of two external events that code as autonomy-supportive (provision of choice, and provision of positive feedback), and three external events that code as controlling (provision of rewards, use of threats or deadlines, use of

evaluations or surveillance). The provision of positive feedback was only considered autonomy-supportive when it met the criterion for informational feedback. Findings suggest that controlled events are associated with reduced levels of interest and enjoyment, a negative effect on creativity, more rigid (and less conceptual) cognitive abilities, and a negative emotional tone. Also notable is the finding that behavioral change, when it results from controlling events (e.g. the provision of rewards or threats), were not sustainable; in other words, if the reward or threat was removed the changed behavior failed to persist.

Collectively, the review mentioned here points to the broad claim that when "the functional significance of an event or context is autonomy-supportive" individuals engage in self-regulatory processes that demonstrate personal ownership, a greater sense of agency, and increased qualitative performance (Deci & Ryan, 1987, p. 1033). The line of inquiry undertaken by the current research examines the degree to which the events and contexts that teachers engage with at their school sites tend toward autonomy supportive or controlling, and whether the effects associated with these approaches in previous research are in evidence in the contexts under review.

The motivation spectrum. Another key construct of SDT is the idea that motivated action exists on a spectrum, with amotivation at one end and the prototypic intrinsic motivation at the other. Across this spectrum the majority of middle-space is occupied by an array of external motivations, varying by degree in their levels of internalization of the act. The degree to which the individual considers the action to be self-initiated or self-regulated is called by Deci and Ryan (2013) the locus of causality; it refers specifically to the location or origin from which the impetus to act was derived.

Early work by Deci (1971) argued that the effect of a reward is closely tied to the individual's perception of the locus of causality, and that it varied with circumstances (e.g. money-based rewards are less compelling to an individual who is wealthy). His small but seminal study established (a) a causal relationship between the undermining of intrinsic motivation and the provision of a monetary reward; and (b) a causal relationship between the enhancement of intrinsic motivation and the provision of verbal reinforcement and positive feedback (also a reward).

Research has continued to establish a positive relationship between informational events/contexts, and the development of intrinsic motivation, arguing that it is a feature of human nature; individuals in early stages of life, for example, are generally inquisitive, curious, and ready to learn (Deci & Ryan, 1980; 1987). They apply creativity and constructivist tendencies to everyday solving of problems without being trained to do so. Human capacity for, and inclination toward such internally guided behavior positively affects performance, persistence, and well-being. Tasks that conduce toward such behavior tap an individual's sense of interest and enjoyment, serving to motivate the individual intrinsically (Ryan & Deci, 2000a, p. 56). An ongoing challenge for educators and managers has been to discover the mechanisms responsible for promoting intrinsic motivation in individuals and teams. Separate sections of this literature review explore those topics.

Ryan and Deci (2000a) conducted a meta-analysis of research pertaining to organismic integration theory (OIT), which they presented in earlier work (Deci & Ryan, 1985). In this work they pulled together key findings from studies, which utilized OIT since its inception, synthesizing and incorporating them into a succinct model of the motivation spectrum. Their

main emphasis was the construct of external motivation as a gradient of increasingly internalized

action; the work contextualized this construct for use in future research. The authors suggested

that, while intrinsic motivation denotes "doing an activity simply for the enjoyment of the

activity itself, rather than its instrumental value," extrinsic motivation refers to engaging in an

activity as a means to attain a "separable outcome" (Ryan & Deci, 2000a, p. 60). Explained in

this research is the notion that extrinsic motivation exists in a nuanced relationship with the

concept of internalized actions; this goes against the previously held stance that extrinsic

motivation exists in an invariant form. Most actions, for example, are initiated by a variety of

different needs and desires, which may or may not be in conflict with one another (e.g. an

individual who loves her job will go to work partly for enjoyment, but also to earn a living).

SDT proposes a process of internalization and integration of values and behavioral

regulations in which an individual takes in, or internalizes, the value/regulation and then

transforms the value/regulation into one over which he or she has genuine ownership; in other

words, the individual integrates the value/regulation. As actions (the manifestation of values) are

internalized and integrated they become increasingly autonomous and self-determined; in other

words, they move closer to being intrinsically motivated actions (associated with enhanced

performance, persistence, and well-being). Alternatively, actions may move along the continuum

in the opposite direction, decreasing in their level of internalization and integration, resulting in a

decreased quality of performance, poor levels of persistence, and a less healthy socio-emotional

state (Ryan & Deci, 2000a).

In the OIT model of motivation, actions exist along a continuum, in a clear and

successive order: Amotivation – complete lack of intention to act → external regulation – act is

performed solely to obtain/satisfy external reward/demand → introjected regulation – act is

undertaken to enhance/maintain self-esteem or sense of worthiness → identification – actor

identifies with the personal importance of a behavior, thereby accepting its regulation as his/her

own, and → integrated regulation – identified regulation is assimilated and considered one's own

(arrows move in only one direction here for clarity; in reality they move in both directions). This

model provides an alternative to the binary model used by previous researchers.

       In sum, SDT accounts for the variable orientations associated with a locus of causality,

providing a comparatively rich understanding of why individuals engage in certain actions.

Rather than classifying the type of motivation an individual exhibits, this line of inquiry is

concerned with "the why of actions" from a cognitive perspective (Ryan & Deci, 2000a, p. 54).

To help account for the why researchers analyzed the construct of extrinsic motivation,

ultimately establishing a model that places actions on a spectrum of increasingly autonomous,

but still externally controlled actions.

       Three innate psychological needs. SDT posits that the three psychological needs for

autonomy, competence, and relatedness must be meet for an individual or group to thrive.

Frustration of these needs, the theory argues, will result in decreased motivation, a lesser quality

of output, and ill-being; collectively this phenomenon can shape an entire social context such as

a school.

       In an important synthesis of research on SDT, Ryan and Deci (2000b) examine

developments around the satisfaction and frustration of the three psychological needs. In their

extensive synthesis, the researchers note the clear indication that while humans are inherently

equipped with motivational tendencies that are intrinsic, those tendencies must be maintained

and enhanced by proper conditions, lest they be "disrupted by various non-supportive conditions" (p. 70). SDT posits that an individual's and a group's self-determined behaviors and wellbeing depend upon the satisfaction of three needs: Autonomy, competence, and relatedness. Self-determined actions – those for which one's perceived locus of causality is internal rather than external – are fundamental to the agentic behaviors with which this study is concerned.

The above mentioned research by Deci and Ryan (2000b) points to an accumulation of findings that suggest when individuals experience support for the three needs – autonomy, competence, and relatedness – they are more likely to exhibit both the commitment and the authenticity associated with intrinsic motivation and integrated forms of extrinsic motivation (p. 74). Failure to provide supports for these needs contributes to alienation and ill-being. Findings indicate that human distress, present today in many forms in both the work place and in schools, is rooted in such psychological need deprivation. Further, the research specifies that all three needs must be met for an individual or group to thrive, as the needs work in conjunction with one another, not in isolation. Finally, the research indicates that, while the satisfaction of the three psychological needs are a universal necessity for well-being, the outward expression of autonomy, competence, and relatedness will be culturally specific due to the established differentiation of endorsed values across cultures (Deci & Ryan, 2000b).

The need for autonomy was the first of the three needs to be definitively identified by SDT researchers. It was initially explained by cognitive evaluation theory (CET), which sought to make clear the relationship between intrinsic motivation and external controls. While SDT posits that a sense of autonomy – the belief that you are in control of your own decisions and actions – is a basic psychological need, which underlies the potential well-being of individuals

and groups, it does not suggest that autonomy be absolute for well-being to develop. Nor does the construct of autonomy refer to the need to act independent of all desires of others; instead it refers to the need to act with a sense of volition and choice, even if the choice is in direct alignment with others' wishes (Van, et al., 2016, p. 1198).

Integral to the inputs that help shape an individual's ability to internalize actions is the individual's perception of his or her competence. This need works in tight conjunction with the need for autonomy: one must feel competent and able to perform tasks in order to develop a sense of autonomy around them. In their meta-analytic review of 99 studies, Van, Ferris, Chang, and Rosen (2016) explain the need for competence as both the need to develop new and valuable skills, and the need to have a sense of "mastery over the environment" (p. 1198). They explain that this need first received attention by theorists (Deci, et al., 1999) during their attempt to explain why verbal praise and other positive feedbacks enhanced levels of intrinsic motivation, even though it was essentially an external control. SDT now views the need for competence as fundamental to humans' inherent desire to examine, evaluate, and affect their environment; additionally, competence is viewed as integral to humans' quest for optimal challenge (p. 1198).

The last of the three needs to receive attention by self-determination theorists was the need for relatedness. Relatedness refers to the need to feel connected to others, to sustain reciprocating relationships, to feel recognized for one's unique role in a group, and to experience a sense of communion (Van et al, 2016). In the meta-analytic review mentioned above Van et al. (2016) noted that relatedness is sometimes considered less urgent for certain outcomes than are the needs for autonomy and competence, perhaps due to individuals' differing needs around social dependence, combined with humans' capacity for sustained independent activity.

However, while the need is not marked by its daily urgency, it remains fundamental to the constructs that make up SDT, which ground the need for relatedness in the evolutionary advantages associated with survival and reproduction. In the words of Van et al. (2016), intrinsic motivation "could not emerge in the absence of secure relational attachments" (p. 1199).

SDT postulates that satisfaction of the three psychological needs – autonomy, competence, and relatedness – predict the psychological growth, internalization, and well-being of individuals and social contexts (Van, et al., 2016). In their review the researchers conclude it would be inappropriate for researchers to average the three needs together, or to use an overall score for needs satisfaction. Also relevant for researchers assessing need satisfaction is the suggestion that they account independently for person-factors and context-factors.

In sum, SDT is a meta-theory that makes use of three key constructs, each arrived at through decades of previous research. These include autonomy-supportive versus controlling behavior by leaders or managers; a spectrum of increasingly internalized forms of motivation; and to the satisfaction versus the frustration of three psychological needs for autonomy, competence, and relatedness. The following three sections will review recent studies that apply to: a) individual teachers in the classroom, b) teachers in collaborative settings, and c) teacher agency in relation to site leadership.

AGENCY AT THE INDIVIDUAL AND CLASSROOM LEVEL

Schools work as integrative systems of learning, enabling observation from an array of vantage points, each yielding unique and revelatory insight. Because the present study attempts to examine schools from this assortment of perspectives, the academic research reviewed here

will be arranged in similar format, beginning with the most focused – the teacher in the classroom.

Teachers' work occurs at many levels of a school. While their attention can often be focused on these levels in simultaneous fashion, what occurs in their classrooms remains fundamental to the cycles of learning and teaching, which they facilitate, and which ultimately shape the collection of experiences that make up their career. Agency is as relevant within the individual classroom as it is across the more integrated realms of the school community.

Among the most significant elements leading to teacher success is the teacher-student relationship. In a seminal study on motivation in schools Roth, Assor, Kanat-Maymon, and Kaplan (2007) sought to determine whether there was a predictive correlation between autonomous behavior in teachers and autonomous learning in students. Participants included 132 female teachers across seven Jewish elementary schools in Israel, and their students (1,255 pupils in grades 3-6). Questionnaires (a composite of scales measuring for needs support and needs satisfaction) were administered to teachers and students at the onset of spring term. The researchers acknowledged that autonomous motivation for teaching is not synonymous with autonomy-*supportive* teaching; they proposed instead that the former enhances the latter in three ways: a) autonomously motivated teachers possess a mastery of and appreciation for their subject matter, which will likely transfer in certain degrees to their students, b) autonomously motivated teachers are likely to have a conceptual grasp of how to internally motivate their students, and c) autonomously motivated teachers are more likely to be resilient in the face of external, "controlling" pressures and are therefore more likely to act with personal resolve (p. 764).

Roth et al. (2007) used a SDT framework, focusing on teachers' self-reported feelings of accomplishment and emotional exhaustion, and students' self-reported feeling of teachers' support for their autonomy, competence, and relatedness. Results supported the hypothesis that autonomously motivated teachers positively affect students' autonomous motivation for learning. Essentially, individual teachers in the classroom are uniquely positioned to affect the level of autonomy their students exhibit as learners. This study represents the first generation of quantitative data to support the assumption.

Similar in intention to the above study, Mohamadi, Asadzadeh, Ahadi, and Jomehri (2011) conducted a three-part examination of the causal relationship between teacher behavior and self-beliefs, and student behavior/beliefs. Inquiries were based on Bandura's social cognitive theory which suggests that self-efficacy beliefs are the constructed result of four different types of informational sources: mastery experiences (informing through past experiences of mastery/failure), vicarious experiences (informing through observing others), verbal persuasion (informing through verbal messages), and emotional/physiological states (informing through physical manifestations of emotion such as anxiety, or feelings of security) (Mohamadi et al., 2011, p. 427).

While the first two portions of the study were designed to test the validity of instrumentation, the third portion sought to determine whether there was a causal relationship between teacher self-efficacy behavior and student self-efficacy behavior. Two scales (*Sources of the Self-Efficacy Inventory*, *Teachers' Sense of Self-Efficacy Scale*) were used to determine levels of self-efficacy in 284 high school teachers in 18 Iranian schools. Student achievement was measured using structural equation models and an array of combined and separate variables.

While the study did not establish a direct link between high levels of student achievement and the students' self-efficacy beliefs, it did establish a positive correlation between teacher self-efficacy beliefs and high levels of student achievement. Again, this study points to the significance of teacher orientation in the classroom – specifically, teacher self-beliefs about effectiveness – and its ancillary effect on students.

Other research shows that teacher perceived levels of autonomy may play a key role in job satisfaction, affecting classroom stability through rates of teacher retention and dispersal. Torres (2014) conducted a qualitative, interview-based study to examine how and why teacher turnover in a selection of schools was related to teacher levels of autonomy. The researcher interviewed 20 participants, 13 of whom were teachers affiliated with schools managed by Charter Management Organizations (CMOs), and 7 of whom were affiliated with independently managed public charter schools. Each participant was either considering termination of a job, or had already terminated.

Findings suggest that while the CMO affiliated teachers experienced relative autonomy around curricula, they had less autonomy around larger school decisions, which they felt ultimately affected their students in significant ways. Conflict around methods used to socialize students was cited as the most prevalent aspect of autonomy-frustration for the CMO affiliated teachers, and was the most commonly cited reason for their decision to leave. The socialization methods in question, as identified by Torres (2014), include clear discipline strategies dictated by the CMO, as well as general strategies for developing what have often been called "soft-skills" in students (Torres, 2014). Specifically, CMO affiliated teachers cited frustrations around their perceived lack of voice in school policy. These policies, made without the teachers' input, would

in turn reverberate in their effects throughout the school, impacting daily classroom practices that teachers (who were meant to implement them) did not agree with on a philosophical or pedagogical level (Torres, 2014, pp. 13-14).

Needs among the non-CMO affiliated teachers were different. Here, limited autonomy was not cited as a challenge that led to leaving a position. Instead, many described a need for support around discipline issues and classroom instruction. For them, lack of support was reported as central in the decision to leave. Torres (2014) notes the findings' consistency with "the theory that expectations for professional autonomy increase as teachers gain expertise (Quartz, Olsen, Anderson, & Lyons, 2010)" and that "those teachers with more expertise had more strongly formed opinions about what would be best for students and those with less expertise wanted more guidance around what to do and how to do it" (p. 14). Such diversity in levels of experience and in expectations for autonomy present a notable tension around teacher autonomy, expertise, and the effectiveness of schools. This tension can often play out at the classroom level. Torres (2014) suggests that incorporating teachers' voices and decision-making processes may be an important retention strategy, especially as those teachers gain mastery over their practice (p. 16). In other words, ensuring job satisfaction for teachers – an important element in teacher retention, which itself has been connected to student performance – cannot follow a simple formula, but must be approached with a nuanced understanding of the needs held by individual teachers (Ronfeldt, Loeb, & Wyckoff, 2013).

Consistent with the many findings that link teacher job satisfaction and well-being, to student success in the individual classroom, Shoshani and Eldor (2016) conducted a study to determine the nature of the relationship between overall learning climate (defined below), levels

of teacher commitment and well-being, and teacher job satisfaction. They hypothesized there would be a "cross-over effect" in which teacher job satisfaction correlated positively to student school engagement, mediated by job satisfaction in teachers (p. 55). Self-reported data from 273 teachers and 1044 students (average age of 12) were collected and analyzed using a bootstrapping model.

Shoshani and Eldor (2016) note that teachers operating in what they term a "learning climate" are motivated to experiment with new materials in the class, are more likely to try new methods of teaching, and are more inclined to engage in self-reflection of their own teaching process. These practices in turn result in teachers' development of a sense of professional accomplishment, increased personal investment, and heightened job satisfaction (p. 60). In this study the concept of a learning climate refers specifically to a broad range of learning norms and actions, which encourage teachers to continuously develop in ability. Additionally, it refers to a culture in which valuable pedagogical results are produced by teachers themselves, and in which new, expansive patterns of thinking are encouraged (Shoshani & Eldor, 2016, p. 53).

Results supported Shoshani and Eldpor's (2016) hypothesis that a crossover effect between teachers and students was in play. Teacher job satisfaction was positively related to academic engagement in students; and the relationship between a teacher's learning climate and student engagement was mediated by teacher job satisfaction. This research has strong implications for schools in their effort to create and sustain climates conducive to teachers' active exploration of new teaching methods, teachers' ongoing self-reflection processes, and teachers' individual and collective knowledge production. Climates conducive to active teacher learning – paramount to the development of teacher agency -- indeed transfer to students.

Teaching is exacting work. It demands what P.G. Wodehouse (2010) once called "a sturdy refusal to acknowledge defeat"; he was referring to the concept of resilience (p. 334). Teachers' development of resilience is instrumental in their long-term retention. Greenfield (2015) suggests that daily challenges result in teachers leaving the profession at relatively high rates: 30-50% of teachers leave within the first five years of practice (p. 52). In his meta-ethnographic review Greenfield identified and analyzed four broad but integrated constructs that can act in concert with one another to combat difficulty and burnout: *beliefs*, *relationships*, *actions*, and *challenges*. Greenfield's review sought to determine ways that teacher resilience could be protected and promoted. Resilience here is defined as the capacity to successfully adapt in the face of challenging circumstances (Greenfield, 2015, p. 53).

The four interactive constructs are presented as concentric dimensions in Greenfield's (2015) model. The inner-most construct, making up the solid core of the model, is the construct of teachers' *beliefs*. These consist of teachers' own insights: their sense of hope, sense of purpose, and sense of self-efficacy. Alone, beliefs do not have the capacity to buffer against the daily struggles faced by teachers. The dimension surrounding teacher beliefs includes two constructs: teachers' *relationships* and teachers' *actions*; when beliefs are integrated with the parallel forces of relationships and actions, per Greenfield's (2015) model, the result may be the development of teacher resilience. Relationships refer to teachers' colleagues, supportive leaders, family and friends, and student interactions. Actions refer to teachers' acts of problem-solving, self-reflection, professional development, and responses to stress. This interrelated web of forces is further affected by the fourth construct, the array of *challenges* with which the teachers are each faced; these challenges are represented by the outer dimension of the concentric model. In

discussing the "challenge" dimension of the model Greenfield (2015) explains that

acknowledgement of the problem "forms an essential part of the change process"; he notes the

need for some level of struggle as a means toward growth (p. 65). In other words, some

challenges can be looked upon as productive of, or even necessary to, growth.

Greenfield's (2015) model presents teachers as agents of their own actions, but he also

acknowledges they operate as parts of a larger system (e.g. the district, the community, the

political climate). He therefore places this model of concentric dimensions within a broad

landscape of macro-systems, each with varying degrees of control and influence. While each

dimension of the model has its own characteristics and functions, it is the *interactions* of these

dimensions that help to determine the level of resilience a teacher achieves at a given point.

While Greenfield's findings are not groundbreaking, they provide one model for the

development of teacher resilience, and can thereby inform the process of becoming agentic at the

individual level.

In sum, a teacher's role in the multidimensional process of developing agency is both

delicate and robust**.** The research consistently demonstrates that agentic teacher behavior is

positively associated with agentic student behavior. Also evident: both teacher job satisfaction

and teacher levels of agency are largely products of a complex network of forces that operate at

all levels of school organizational structures; while either may develop in the absence of a

conscious agenda of support, widespread development of each is invariably the result of active

and informed promotion at multiple levels. The next section considers agency in a wider context:

the collaborative environment.

AGENCY IN THE CONTEXT OF COLLABORATION

The development of agency in individuals occurs as a function of myriad inputs and processes. This section examines research on the processes of collaboration and teamwork; it highlights ways that individual and collective agency may influence, and be influenced by a network of interrelated factors across settings, and as a specific function of collaborative experience.

Collaborative work presents unique challenges and benefits to participants. In their extensive review and synthesis of motivation theory as it applies to teamwork, Chen and Kanfer (2006) explored the potential for, and the implication of crossover phenomena. Traditionally applied to individuals alone or teams alone, motivation theories neglect to examine the cross-level interplay. Chen and Kanfer (2006) attempted to understand and predict collective motivation in teams, as well as individual motivation in the context of a team. While it is the case that many teachers spend time in the confines of classrooms and away from colleagues, it is also true that teachers can and do play important roles as members of teams, signaling the need for research to address such phenomena.

Extensive analysis of the research revealed that team goal-related processes and individual goal-related processes were similar, suggesting that motivation phenomena do in fact generalize to teams. However, the researchers point out that team member actions are interdependent, and as such, they play a role in directing, aligning, and monitoring taskwork (Chen & Kanfer, 2006, p. 231). Meaningful goal generation in teams demands consensus around team objectives; advancing toward identified goals requires coordinated, collective efforts.

Chen and Kanfer (2006) define team motivation as "the collective system by which team members coordinate the direction, intensity, and persistence of their efforts" (p. 233). Their analysis suggested that self-efficacy and the concept of individual empowerment each have an analogue to the team context. Team efficacy is characterized as a team's shared belief that it can accomplish a specific task; team empowerment is represented as a team's shared multidimensional belief that it has the power and the capability to carry out meaningful tasks in the organization for which it exists (p. 233). One can conclude that a disruption in an individual member's motivation will have a pervasive influence on collective team motivation; the opposite might be equally true. Teams, in other words, can serve as a source for motivated action, and they can also encumber motivated action (p. 238-239).

The researchers also noted the specific vulnerability of teams: "[J]ust as one dysfunctional neuron [in a molar vision system] may impair the operation of a set of neurons and so disrupt the object recognition, so can one indifferent or disruptive team member interfere with the successful generation of team goals" (Chen & Kanfer, 2006, p. 241). This complexity in team operations may be one reason that schools have traditionally facilitated an individual-based model of teaching, rather than one of collaboration.

Satisfying the need for relatedness – a necessary component of self-determined behavior, higher quality output, and increased well-being – often relies on collaborative contexts. It can be assumed that conducting one's action within an interdependent group that works collectively toward a meaningful goal is one route toward meeting the need for relatedness. Karaarslan, Ertepinar, and Sungur (2013) applied SDT to the learning efforts of 33 pre-service teachers (PST) in an environmental science course, over a six-week period. Results reveal the important

role that relatedness can play in the process, specifically with regard to teamwork. Karaarslan et al. sought to discover whether the application of a SDT framework could foster in PST an active participation in the development of their own understanding of, and engagement in pro-environmental behaviors. Specifically, the study explored the potential for self-determined behaviors to emerge as a result of instructional features and dynamics designed expressly to meet the psychological needs for autonomy, competence, and relatedness. Data collected were primarily qualitative, but included some quantitative additions.

Of the 33 students surveyed, a sample of five was selected as a focus group, and were subjected to more in-depth analysis and review. Within this group a series of qualitative data gathering activities were conducted, from extensive interviews to the examination of work samples. Students were assessed for their level of satisfaction for each psychological need. Analyses identified eight coded categories which emerged as prominent patterns in the data; those pertaining specifically to the need for relatedness included *Awareness of personal role in the system* (APR)*, Collective construction of ideas* (CCI)*, Student guided discussion* (SDG)*,* and *Consistent group dynamic* (CGD)*.* Of the eight codes tracked, APR, CCI, and SDG were the most frequent to appear over the six-week period of data tracking (Karaarslan et al., 2013, p. 367). In relation to the current discussion, the results of the Karaarslan et al. (2013) study suggest the establishment of a strong correlation between teamwork and satisfaction of the psychological need for relatedness in PSTs.

Guglielmi, Panari, Simbula, and Mazzetti, (2014) also conducted research that explored contributing factors to well-being and motivated action; they focused upon the capacity of organizational identification and work engagement to mediate the interaction of professional

development and job satisfaction. The motivational process of the Job Demands-Resources (JD-R) model was applied. Guglielmi et al. (2014) define organizational identification as "the perception of belonging to one's organization"; they suggest it speaks to a perceived "oneness between the self and the organizational context" (p.1842). Notable here is the clear correlation between organizational identity and the concept of relatedness in a SDT context. The researchers evaluated the degree to which teachers' organizational identification conduced toward higher levels of work engagement. A sample of 202 teachers in Italian schools were assessed using four scales, each a metric for a separate variable (*Job satisfaction*; *Work engagement*; *Organizational identification*; and *Professional Development*) (p. 1843-1844). Results suggest that organizational identification is a key variable, that, when activated, conduces toward increased motivational processes in teachers across schools. Additionally, findings suggest opportunities for professional development had the potential to catalyze this identification process.

While professional development has no standard mold, it is not traditionally a solitary process, but a social and even collaborative endeavor. This presents the possibility that the development in teachers of a deeper "feeling of belonging" in the Guglielmi et al. (2014) study was in part generated by the group dynamic. In turn, the increased job satisfaction associated with organizational identification, along with the facilitation of "vigour, dedication, and absorption to work" (identified outcomes for teachers in this study) could in part be a result of satisfaction of the need for relatedness (p. 1845).

Though the above study supports professional development as a means by which teachers might progress, it makes no qualitative distinctions in relation to the specific models employed. Some models of professional development may encourage passive learning, while others are

more conducive to the development of autonomy, or may engage teachers in active capacity

building. Capacity is crucial to the demonstration of competence. Professional development has

the distinct purpose of increasing capacity, which in turn has both a positive and a transactional

impact on the development of autonomy. We can deduce that professional development has the

potential to play a fundamental role in increasing teacher agency. Research (Kafyulilo, 2013)

suggests this is due in part to the collaborative nature of some professional development models.

    Wang and Zhang (2014) conducted a study across Chinese schools with three aims: a) to

examine teachers' learning processes, b) to examine the impact that action research had on the

development of teacher autonomy, and c) to review the issues involved with facilitating

successful collaboration across parties. Participants included 45 secondary teachers from 12

different school in Beijing who each engaged in action research through close collaboration with

17 University teachers; these unions were supported by three teacher research officers. The

teachers were grouped into 12 cohorts with the goal of grouping together teachers from same

sites.

    According to Wang and Zhang (2014), China's education system "endeavors to change

[its] knowledge-based, exam-oriented mode of teaching to one that is learner-centered,

competence-based and quality-oriented" but faces significant challenges with regard to capacity

building and teacher initiative (p. 223). The 18-month project was designed to increase teacher

capacity and autonomy through the facilitation of collaborative research and knowledge

generation in the service of educational change.

    Data were collected, analyzed, and coded using a content analysis method, which allowed

for open-ended, holistic processing to allow for emergent themes. Sources included pre- and

post-project questionnaires, interviews, reflective journals, discussions in project meetings, and the resulting action research reports (Wang and Zhang, 2014, p. 228). Results suggest the collaborative action research project was able to change the previously isolated teaching culture of the schools to one in which teachers used one another as valuable resources for idea generation, success sharing, and awareness building. Teachers in the study became more active and more autonomous in their teaching and related inquiries, in their quests toward individual problem-solving, and in their tendencies to reflect on their professional performance (p. 231). These findings suggest that shifts in school culture from the traditionally isolated teacher-in-classroom model to one in which a collaborative learning climate prevails, is both feasible, and is a possible route toward increased levels of teacher autonomy and enhanced professional growth.

The development of teacher agency has long been involved in the effort to empower teachers to become active constructors of new knowledge (Andrews & Crowther, 2006). Professional development can be – but traditionally is not – a key player in this effort. In a policy paper that explores teachers' professional identity, paths toward empowerment, and professional development, Bodman, Taylor, and Morris, (2012) assert that teacher autonomy in the United Kingdom has experienced a marked decline resulting from an increasingly linear model of professional development in which teachers simply receive, and do not construct or reflect upon, previously curated information. Linear models of professional development are concerned with transferring knowledge from one place or person to another. They do not actively facilitate teachers' collaborative generation of knowledge and ideas. Bodman et al. (2012) attribute the proliferation of this model to the overbearing standardization of the national curricula, which demands discretely measurable outcomes for students, resulting in specific, and largely linear

inputs from teachers once back in their classroom. The impact centers on student capacity.

Teacher professional identity, submit Bodman et al. (2012), also hangs in the balance. Because

there are considerable parallels between reform efforts in the United Kingdom and the United

States, findings are relevant to public schools in the states, and have cogent application to

inquiries around teacher agency.

The paper mentioned above identifies four categories of teacher knowledge: *replicatory,*

applicative, associative, and *interpretive* knowledge. Replicatory knowledge is specific to its

original (or similar) context or topic. In practice the use of replicatory knowledge can easily be

disseminated and replicated with accuracy because it does not necessitate reflection or

adaptation. This form of knowledge allows for no agency, positioning teachers as mere

technicians through which to transfer information. Notable is the lack of any need for

collaboration between professionals when consuming replicatory knowledge. Applicative

knowledge allows for moderate adaptation to the specific needs of students or groups. Together,

these forms of teacher knowledge, claim the researchers, are central to the linear models of

professional learning which now make up the norm in the United Kingdom's system of

education (Bodman et al., 2012, p. 15).

Teacher agency is implicated when working with interpretive and associative knowledge,

however. Interpretive knowledge is generated "at the point of practice" and demands active

reflection (Bodman et al., 2012, p. 15). Associative knowledge incorporates notions of pedagogy

and subject, but also introduces elements of reflection. These two forms of knowledge make

specific use of prior experience, technical and procedural understanding, and reflection on

multiple levels. In contrast to replicatory and applicative knowledge, they operate in the realm

that Bodman et al. (2012) term "professional knowledge," and they contribute to the

development of professional agency in teachers (p. 15-16).

Professional development models that make use of interpretive and associative

knowledge are often inquiry-based, and regularly engage teachers' reflective and analytic

experiences. They include collaborative dialogue, actively engaging teachers in restructuring

opportunities for learning to best meet their students' needs; these forms of professional

development also include teachers' collective reformulation of existing professional knowledge

for new practice. Such models center on teachers' own construction of ideas and solutions. In

this way, they develop agency in teachers while also building capacity (Bodman et al., 2012, p.

21). Models of professional development are far from equal. They vary on multiple levels, but

perhaps most importantly, they vary in how they facilitate the collective construction of

knowledge by teachers.

In sum, this section has examined the roles that collaborative acts play in the

development of teacher agency. Key mechanisms of motivation were found to transfer from

individual situations to collaborative or team situations, but a distinct vulnerability present in

such interdependent situations was also noted. Strong correlations between team (or

collaborative) work and the satisfaction for the relatedness need were established. Professional

development was found to aid in the development of organizational identity, which in turn

correlated to increased motivation for individuals. Engagement in some forms of professional

development were also found to increase both teacher capacity (which is known to directly affect

perceived feelings of competence), and teacher perceived sense of autonomy. Distinctions

between various forms of professional development were made, along with their correlating

effectiveness for building agency in participants. It was found that professional development which engaged teachers in active and collective knowledge construction conduced toward overall increases in teacher autonomy and growth.

AGENCY IN RELATION TO ADMINISTRATIVE LEADERSHIP

Site leaders play powerful roles in their schools. This section attempts to unveil some powers that may lie hidden even from the leaders themselves. The section begins with a study that used a SDT framework; it then moves into the exploration of alternate lines of inquiry (some in conjunction with SDT), and it ends with a study that explores the application of transformational leadership.

The initial studies to examine the constructs of SDT in applied settings (deCharms, 1976; Deci et al., 198l; Ryan & Connell, in press; Ryan & Grolnick, 1986) were conducted in schools and focused on the level of self-determined behaviors in students. Deci, Connell, and Ryan (1989) were the first to conduct a study that applied these constructs to a work organization, focusing largely on supervisor-subordinate interactions. The study examined workers' self-determined behaviors (i.e. personnel, not clientele) as a specific function of supervisor inputs. Because it was among the first to consider supervisor inputs and supervisor-created work climate as key variables in worker behavior – a central phenomenon in the current research – the study is used to introduce this section on effects of administrative leadership on teacher agency.

The researchers conducted a two-pronged study which explored the effects of: a) autonomy-supportive (termed *informational* in this work) versus controlling manager inputs in the workplace, and b) the implementation of a strategic interventions in which managers received

training aimed to develop their self-determination supportive behavior toward subordinates, including the provision of non-controlling positive feedback, and empathetic acknowledgement of subordinate perspectives. The sample included 23 managers and their subordinates (technicians and field managers) within the service division of a major machine corporation. Data was collected over an 18 month period across three calendar years. Three instruments were employed to gather data on the work environment, on attitudes of employees, and on problems encountered in the workplace (*Work Climate Study, Employee Attitude Survey,* and *Problems at Work Questionnaire*). The intervention phase included multiple sessions of teaching, as well as targeted reflections on practice in one-on-one settings with trained coaches.

Correlational analysis of phase one data indicated that subordinates of managers who exhibited autonomy-supportive behavior retained a positive outlook on their job, while workers with controlling managers tended toward more negative outlooks (Deci et al., 1989). Phase two data suggested intervention training had a progressive effect on managers' interpersonal orientations toward subordinates, with positive results for subordinate self-determination levels.

However, also notable was the finding that managers' support for self-determined outcomes in subordinates was insufficient in affecting significant change when problems at higher levels of the organization persisted (e.g. salary or job insecurity); only when the organization demonstrated visible evidence of concern for worker security and well-being did the managers' support make a positive impact on levels of subordinate self-determination (Deci et al., 1989, p. 588-589). This is particularly relevant for public school districts because their organizational structure often adheres to a specific hierarchy, making needed change difficult at the site administrator level. Alternately, the study implies the possible need for focused intervention at

school sites where administrators do not yet incorporate an interpersonal orientation supportive of teacher self-determination.

In another study that spotlighted leadership orientation toward subordinates, Graves and Luciano (2013) wove together the constructs of SDT and leader-member exchange theory to determine: a) whether leader-member exchange (LMX) relates positively to competence, autonomy, and relatedness; b) whether competence, autonomy, and relatedness relate positively to autonomous motivation; and c) whether autonomous motivation relates positively to subject vitality (indicating physical and psychological well-being), job satisfaction (reflecting employee's overall evaluation of his/her job), and affective organizational commitment (indicating emotional attachment and identification with the organization). LMX theory suggests that the quality of leader-subordinate relationships vary along a continuum; low-quality relationships are characterized as impersonal and contract-based; high-quality relationships are characterized as operating by way of mutual trust, respect, and a sense of obligation. LMX theory posits that high-quality exchanges between a leader and a subordinate will benefit the subordinate, the leader, and the organization (Graves & Luciano, 2013, p. 519). This study focused on subordinate construal of the leader-subordinate relationship.

Participants included 283 individuals who were each alum at a graduate business school in the northeastern United States over a period of twenty years. Numerous efforts were made to account for possible bias in relation to sample selection, to unknown effect. The researchers used multiple scales to measure: Subordinate perspective of relationship with leader, employee needs satisfaction, employee levels of intrinsic motivation, employee levels of commitment, employee job satisfaction, and subjective vitality at work (*LMX 7 scale, Basic Need Satisfaction at Work*

Scale, Motivation at Work Scale, items from Meyer and Allen, Michigan Organizational Assessment Questionnaire, and *Ryan and Frederick's subjective vitality scale,* respectively) (Graves & Luciano, 2013, p. 524-525). Latent variable structural equation modeling was performed during analysis.

Results indicated that high-quality leader-subordinate relationships correlate positively to increased satisfaction for competence, autonomy, and relatedness needs in employees. Satisfaction of the needs for competence and autonomy were found to correlate positively to autonomous motivation in employees, but this was not the case for employee's relatedness needs satisfaction. Autonomous motivation was found to correlate positively to subject vitality, job satisfaction, and affective organizational commitment in employees. Notable also was a direct positive relationship between higher quality leader-subordinate relationships and employee reported job satisfaction (Graves & Luciano, 2013, p. 526-527). When applied to school ecosystems these findings imply the considerable importance of administrator-teacher relationships to the overall functionality and well-being of the school community, indicating a need to both assess for and facilitate high-quality relations. One approach toward such facilitation may be intervention strategies like those tested in the Deci, et al. (1989) study previously mentioned.

SDT frameworks have been widely applied to research aimed at establishing a positive relationship between needs satisfaction and increased levels of self-determined motivation; less research has focused on the results of needs frustration. Jang, Kim, and Reeve (2016) conducted a study that explored "dark side" effects of needs frustration in students. Jang et al. reject the notion that needs satisfaction and needs frustration are opposites; instead they suggest the two

(along with their correlating partners: engagement and disengagement) are largely independent constructs that abide by independent rules. The team sought to account for student tracks that followed a trajectory of rising classroom disengagement, as opposed to student tracks that followed a trajectory of rising classroom engagement. While their work observes the leader-subordinate dynamic of teachers and students, significant parallels exist in the dynamics between administrators and teachers in school communities.

Unique to this study is the utilization of a dual-process motivational mediation model for applying SDT constructs; counter to the traditional model the dual process model focused equally on mechanisms and results of needs satisfaction, and mechanisms and results of needs frustration, treating each as a process independent from the other, with distinct antecedents and outcomes (Jang et al. 2016, p. 28). Participants included 407 high school students enrolled in one of 12 classes at an urban setting in Seoul, South Korea. Three waves of data collection occurred at the beginning, middle, and end of the term. Only 366 students made up the official sample, as these were present for all three waves. The same 67-item questionnaire was used at each wave; it measured for satisfaction and frustration of competence, autonomy, and relatedness needs. Additionally, the questionnaire measured engagement and disengagement with foci on behavioral, emotional, agentic, and cognitive elements. The questionnaire was a complex and reorganized composite of several individual scales (*Learning Climate Questionnaire*; *Controlling Teacher Scale*; *Balanced Measure of Psychological Needs*; *Engagement versus Disaffection with Learning measure*; *Agentic Engagement Scale*; *Deep Learning measure*; *Study Disorganization measure*) (Jang et al. 2016, p. 32).

A key finding of this study is that student displays of engagement or disengagement (as informed by support for, or thwarting of, basic needs) led to students' altered perception of their teachers' motivating style. The underlying implication is that changes in a teacher's motivating style were informed or shaped by student demonstrations of engagement or disengagement. Put another way, an engaged individual will elicit a different motivating style from his or her superior than will a disengaged individual. The *level of engagement* was instrumental in shaping the superior's motivating style. This reciprocal aspect of the needs-frustration relationship to leader behavior has traditionally been overlooked by researchers (Jang et al. 2016, p. 36-37). When applied to the administrator-teacher relationship, the finding has significant implications for administrator-teachers exchanges, especially where teachers demonstrate visible needs frustration.

The final study presented in this section considers the effects that transformational leadership can have on proactive behavior in subordinates. Transformational leadership is that which "raises the consciousness of followers about what is important, raises their concerns for higher-level needs on Maslow's hierarchy, and moves followers to transcend their own self-interests for the good of their group, organization or society" (Bass, 1999, p. 5). Again, this study is one grounded in the discipline of business, but is applied here to the educational ecosystem.

Den Hartog and Belschak (2012) argue that for low autonomy employees, transformational leadership can increase proactive behavior in those also low on the role breadth self-efficacy (RBSE) scale. RBSE refers to employees' perception that they can carry out "a broader and more proactive set of work tasks that extend beyond prescribed technical requirements" (Parker, 1998, p. 835). In other words, for disempowered employees who feel most at home performing a set,

prescriptive array of tasks, transformational leaders can elicit a greater yield in proactive

behaviors than they might with more empowered employees who aspire to a more diverse

breadth of work tasks (Den Hartog & Belschak, 2012, p. 194). Applied to teachers this describes

an individual who sees him or herself as limited in performance capabilities but underprivileged

with regard to job freedom. In the language of SDT, this teacher's needs for competence and

autonomy have not yet been met. While the benefits of transformational leadership are well

established in the literature (McCarley, Peters, & Decman, 2016; Boberg & Bourgeois, 2016),

few studies have focused on its benefits for this subgroup.

The researchers conducted two studies to observe the interactive effects of transformational

leadership, job autonomy, and RBSE. A random selection of 128 companies were contacted to

participate. In Study 1 the sample consisted of 150 employee-colleague dyads; in Study 2 the

sample consisted of 158 employee-supervisor dyads. Data were collected on transformational

leaders' behavior, job autonomy, and RBSE. Data on employee proactive behavior were

collected through an array of method (self- and peer-ratings in Study 1; supervisor ratings in

Study 2) (Den Hartog & Belschak, 2012, p. 196-197).

Results confirmed a positive relationship between transformational leadership and

proactive employee behavior. Job autonomy also correlated positively to proactive behavior.

More revelatory was the finding that the resulting interactions between autonomy and proactive

behavior (as distinct inputs) are relative to differences across individuals and contexts.

Specifically, in high autonomy situations transformational leadership correlated strongly to

proactive behavior for those workers with high levels of RBSE, but in low autonomy situations

transformational leadership correlated strongly to proactive behavior for workers low on the

RBSE scale. Essentially, for enhanced proactivity to emerge under transformational leadership, the degree of situation autonomy needs to match the workers' level of RBSE (Den Hartog & Belschak, 2012, p. 199).

This presents a challenging situation for site leaders. Recall the similar conundrum brought to the fore by the Torres (2014) study that looked at job satisfaction levels in teachers at charters schools (some run by Charter Management Organization, and some independently run). Torres (2014) found that the CMO affiliated teachers were frustrated by their low levels of autonomy, while the non-CMO affiliated teachers were frustrated by the lack of focused support they received. Meeting the needs of both sets of teachers/subordinates, whether in the charter school situation, or in the situation described above in which levels of RBSE must effectively be matched with situation autonomy, requires two separate approaches which are often at odds with one another.

Den Hartog and Belschak (2012) note transformational leaders often "communicate an ambitious vision, challenge followers, have high expectations, take risks, and set difficult standards of performance," all elements that employees with low RBSE may regard with reservation (especially when guidance is not forthcoming) (p. 199). In certain contexts, this phenomenon may lead to decreased levels of proactive behavior. This point is potentially relevant for schools. Achieving an effective degree of fitness with regard to leadership style, teaching force, and school context is likely an ever-evolving challenge that evades even the lucky and the brilliant. Special care must be taken, and no roadmap exists for meeting such a diversity of different employee needs.

In sum, this section pointed to evidence that autonomy-supportive behavior in managers conduces toward workers' positive job outlooks, while controlling behavior in managers conduces toward workers' negative job outlooks. It examined LMX theory in relation to SDT to establish the critical importance of high quality leader-subordinate relations for workers' autonomous motivation, well-being, and organizational commitment. It also explored the "dark side" effects of SDT, pointing to the finding that different levels of engagement in subordinates can shape leader behavior toward those subordinates. Finally, the section touched on transformational leadership in relation to RBSE levels in workers. When situation autonomy matched RBSE levels in workers, there was both a positive relationship between transformational leadership and proactive worker behavior, and a positive relationship between job autonomy and proactive worker behavior. Effectiveness of such leadership was dependent upon the interaction between situation autonomy and RBSE, and was found to be less effective for situations in which different groups of workers exhibited significantly divergent levels of ability.

SUMMARY

In review, the development of teacher agency occurs or fails to occur as a result of a complex array of interdependent actions across different levels of school systems. A teacher's level of agency has been shown to directly impact student levels of academic engagement and autonomous motivation to learn. SDT provides a framework for understanding this web of interacting forces between teachers, leaders, and their corresponding social contexts. SDT points to three psychological needs universal to all individuals: autonomy, competence, and relatedness.

The theory claims that satisfaction of these needs lead to well-being, a higher quality output, and increased levels of internal motivation, while the frustration of the needs lead to ill-being, poor quality of output, and decreases in motivation. These phenomena apply to individuals and social contexts alike, so can be applied to teachers and the schools in which they teach.

The literature suggests that an array of conditions in the school setting mediate job satisfaction and lead to increased levels of internalized motivation. These include: a) a climate that is conducive to learning on multiple levels, including that which requires risk taking and an openness to new ideas; b) professional development opportunities that allow for teachers' collective construction of relevant and meaningful knowledge; c) high quality relationships between teachers and site leaders that are marked by trust, respect, and authentic connection. Theoretically, the fulfillment of the conditions mentioned here conduce toward the satisfaction of the needs for autonomy, competence, and relatedness, ultimately resulting in increased levels of teacher agency.

The current research seeks to explore levels of teacher agency in five school across a K-12 district, assessing for teachers' satisfaction and frustration for autonomy, competence, and relatedness needs, and ultimately accounting for each. Existing research has viewed these phenomena in private organizations, or with regard to teachers and their students; it has not yet applied the framework to the teacher-site leader relationship, or the relationship between teacher agency and collaborative traditions at the site.

CHAPTER 3 METHOD

RESEARCH APPROACH

This research sought to determine which factors lead to or encumber the development of teachers' sense of professional agency. It used a self-determination theory (SDT) framework to measure levels of satisfaction and frustration for three key needs in teachers, and assumed that in cases where all three were highly satisfied, the teacher exhibited agency. Qualitative, descriptive data were collected to confirm and give detail to the quantitative findings.

The research herein used a mixed methods approach known as *explanatory sequential design* (Creswell, 2016). First, a purposeful sample was selected to generate quantitative data. Once the findings were analyzed, the results were used to inform and shape the specific design of the qualitative data gathering phase. Quantitative data were collected by way of a district wide questionnaire answered by teachers. Qualitative data were collected through face-to-face interviews from a smaller sampling of willing teachers and administrators across the five sites. Once qualitative data were analyzed and results arrived at, both sets of findings were integrated into a SDT framework, subjected to further analysis, and the final set of results were identified.

This mixed methods approach to research was arrived at to engender a deep understanding of participants' daily work experience, while also providing the relative objectivity offered by quantitative data collection and analysis. Schools are complex ecosystems that exhibit nuance, diversity of viewpoint, and a wide array of voices. In order to effectively represent this complexity, and to enhance the accuracy of findings, this integrative approach was determined to be of the greatest value.

ETHICAL STANDARDS

This paper adheres to the ethical standards for protection of human subjects of the American Psychological Association (2010). Additionally, a research proposal was submitted; it underwent review by the Dominican University of California Institutional Review Board for the Protection of Human Subjects (IRBPHS). It was approved and assigned #10548.

SAMPLE AND SITE

Participants included 28 teachers and two administrators. All teachers (.60 FTE and above) and principals within a small K-12 district were invited to participate both by district email and through the dissemination of an invitation letter in hard copy, accompanied by hard copy questionnaires, delivered to on-site staff mailboxes. While the five principals each received a research questionnaire, low levels of participation on their part did not facilitate an effective use of the results, and these were discarded.

The district comprises five schools, 76 eligible teachers, and five principals. Teacher age had a mean of 48 years, fifty-four percent of whom were between the ages of 50 and 64. Seventy-nine percent of teachers were female. Seven of the 28 teachers held a master's degree or above. Fifty-four percent of teachers had worked for the district for more than twenty years. Of the two responding principals, the demographic data collected were minimal, and will not be reported to protect privacy. Ninety-three percent of all participants were Caucasian. Of the 331 students in the small K-12 district, 32% are English Learners, and 43% are considered by the State of California to be socioeconomically disadvantaged.

ACCESS AND PERMISSIONS

Each participant was informed of the study's objective, was made aware of the risks and benefits, and was informed that no compensation would be provided. Each was reminded that participation was voluntary, and that all information provided would remain anonymous. Interviewees were informed that some direct quotes may appear in paper, but that the identity of the speaker would remain confidential. Interviewees were given complete discretion regarding the location of the interview. Member-checking was performed as an additional means toward interviewee discretions, and to ensure accuracy. All participants were provided a simple means with which to ask questions or raise concerns about the study. Additionally, all participants were informed that the study would become publicly available upon completion.

MEASUREMENT AND TOOLS

Data were gathered by two separate means: surveys and interview. The teachers' psychological needs satisfaction versus frustration was measured using the formally validated Basic Psychological Needs and Frustration Scale (BPNSFP) (Chen, Vansteenkiste, et al., 2015). It includes 24 items that assess the needs for: autonomy, competence, and relatedness. Each item makes a simple statement (e.g. *I feel forced to do many things I wouldn't choose to do*). Participants rated each statement on a 1-5 Likert scale, where a "1" represented the notion *not true at all* and a "5" represented the notion *completely true*.

Principals were evaluated for their level of autonomy-support as leaders, versus controlling behavior as leaders, using the Problems at Work Questionnaire (PAW). The measure

includes eight vignettes, each of which describe a situation at work; each vignette is followed by four separate descriptions of responses to the situation; responses fall into the categories: Highly Autonomy Supportive (HA), Moderately Autonomy Supportive (MA), Moderately Controlling (MC), and Highly Controlling (HC). Participants rated each response to the work situation on a 1-7 scale where "1" indicates "very inappropriate" and "7" indicates "very appropriate." There are 32 responses in total. The PAW scale was validated and assessed for reliability in a study by Deci, Connel, and Ryan (1989). For the current study the scale was adapted slightly to minimize language associated with a corporate business model; permission was granted by the authors to make these adjustments. Because only two of the five principals chose to participate, the results of this questionnaire were not analyzed or incorporated into the results.

Qualitative data were gathered through eight face-to-face interviews conducted and recorded by the researcher. Questions and prompts were open-ended and included such content as "Discuss your site's atmosphere. How would you describe it?" and "What routes for professional growth are, or have been, available to you? Discuss their effectiveness." Interviews ran from 30-60 minutes each.

DATA GATHERING PROCEDURES

The complete population of teachers (.60 FTE or more) and principals within the district were selected for participation. An introductory email was sent to all potential participants; this provided a brief description of research objectives, and explained how willing individuals could take part. Within two days of the email, questionnaire packets were delivered to staff via district mailboxes. Packets included a cover letter, a demographics survey, a consent form, and two

labeled return envelopes. The consent form was to be returned in one envelope, and the

questionnaire and demographics survey (correlated by participation number) were to be returned

in another. Labeled return-envelopes guided participants through the process. Secure collection

boxes were placed in each site office, and remained for three weeks. Potential participants

received two follow up emails to inform them of the final collection day for questionnaires, and

to offer a hassle-free method for posing questions or concerns.

One section of the consent form presented participants the option of entering into a pool

of potential interviewees. Consenting interviewees were logged, and a sample were selected and

contacted based on effective site representation. Interviews were conducted in a variety of

locations depending on the needs or desires of the participants. All interviewees were presented

with a set of open-ended questions (see Appendix A), and follow up questions were inserted as

needed. Each agreed to have the interview recorded, and each consented to selections of the

interview being quoted verbatim, with the understanding that all identities of participants would

remain anonymous. The content of each interview was transcribed onto a document to facilitate

analysis. Using a member-checking process, transcriptions were reviewed by interviewees;

changes – or eliminations of specific content – were implemented at the interviewee's request.

DATA ANALYSIS APPROACH

An explanatory sequential design study uses a two-phase data collection process. First,

the quantitative data is collected, analyzed, and interpreted. This helps the researcher determine

how best to construct and lend focus to phase two, qualitative data collection. In the current

study the quantitative data was collected by way of the scales (BPNSFP and PAW); it was

analyzed using descriptive statistics such as central tendency, distribution, and dispersion. Only the BPNSFP results were retained and analyzed. The results suggested: a) moderate to high levels of satisfaction for all three needs, and b) a gap in clarity around teachers' sense of relatedness and autonomy, with an emphasis on the latter. The interview questions were thus shaped to elicit narrative and descriptive detail to confirm satisfaction levels and to shed more light on the gap in clarity.

Once interviews were complete a process of structured analysis began. Member-checking was implemented to ensure alignment of the data with the interviewee's originally intended meaning, and to allow interviewees to remove any content of concern. The interview transcripts were then examined by the researcher using two initial cycles of coding. First, the transcripts were examined through the lens of three broad a priori categories: the individual teacher in the classroom, collaborative work, and site leadership. This phase included jottings, bracketing, and initial labeling of content. Six cycle 1 codes were eventually arrived at. Next, a holistic coding process was begun. Here text was "chunked" into slightly less broad, emergent categories in preparation for cycle-two coding. Cycle two processes made use of both pattern coding and focused coding (Saldana, 2009). Pattern coding was used to draw connections between similar or parallel emergent categories, and sometimes to synthesize one or more of these into a more dynamic category. Focused coding identified the most salient emergent categories, and aligned them with the research framework. Interview coding culminated in the creation of a code matrix that held 284 coded excerpts, six cycle 1 codes, and 21 cycle 2 codes.

The third phase of analysis was integration. Quantitative and qualitative findings were integrated into a SDT framework. A final process of analysis using the research framework

resulted in a set of 12 operative factors that lead to the development or encumbrance of teacher

agency. These were organized according to the three needs for autonomy, competence, and

relatedness.

CHAPTER 4 FINDINGS

Data were collected in two phases. In Phase 1 the Basic Psychological Need Satisfaction

and Frustration Scale (BPNSFP) was completed by 28 participating teachers across five schools

in a single K-12 district. The scale attempted to measure the degree of satisfaction and frustration

of teachers with regard to the three psychological needs: autonomy, competence, and relatedness.

According to self-determination theory (SDT) methodology, when these needs are satisfied in

individuals or groups there will be a high level of volition, increased quality of performance,

greater use of creativity, and overall persistence (Ryan & Deci, 1985, 2000b). This set of

qualities in individuals, or in a social context made up of individuals, equates to the

demonstration of professional agency. In Phase 2 a sampling of seven teachers and one

administrator were interviewed: a) to confirm the results displayed by quantitative data, b) to

provide descriptive and experiential detail of those findings, and c) to provide clarification

around the contradictory nature of select findings. An integrative analysis of quantitative and

qualitative data sets was conducted to arrive at the final results: a) a set of factors that conduce

toward teacher agency, and b) a set of factors that encumber teacher agency.

PHASE 1: QUANTITATIVE DATA RESULTS

Basic needs satisfaction levels for participating teachers was relatively high, and

frustration levels relatively low. Across all twenty-eight participants the average score for

satisfaction of the competence need was 4.36 on a 5 point Likert scale in which 1 represented the

lowest level of satisfaction, and 5 represented the highest level of satisfaction. The average score

for relatedness satisfaction was 4.21, and the average score for autonomy satisfaction was 3.92.

Average frustration levels followed a similar pattern, but the scores appear as the inverse.

This is because the scale uses a system of couplets in which one question is asked to determine a

level of satisfaction; then it is asked again in the opposite, using slightly different wording, to

determine levels of frustration (e.g. the statement *I feel competent to achieve my goals* is used to

measure satisfaction of competence, whereas the statement *I feel insecure about my abilities* is

used to measure frustration of competence). Competence frustration had an average score of

1.70 out of 5; relatedness frustration had an average score of 1.52; and autonomy frustration had

an average score of 2.76. If one plots each couplet of scores on a line that represents the score

capacity of five, it becomes clear that one score is not in fact the inverse of the other. Instead,

frustration levels are .06 of a point (competence), .27 of a point (relatedness), and .59 of a point

(autonomy) higher than an inverse score would be. The latter two discrepancies were significant

enough to warrant deeper examination of participants' frustration levels for relatedness and

autonomy in Phase 2 of the study.

A more in depth examination of the quantitative findings were also conducted as a result

of these discrepancies. When examined holistically four couplets displayed incidents in which

the reports of satisfaction served to contradict reports of frustration; all four couplets measured

levels of autonomy. When these couplets were examined at the individual participant level only

two remained contradictory. Twelve participants gave contradictory answers to one couplet, and

nine to the other. Phase 2 research sought to shed light on these contradictions.

PHASE 2: QUALITATIVE DATA RESULTS

Eight 30-60 minute interviews were conducted by the researcher. All participants were asked a set of open ended questions (Appendix A), with follow up questions inserted as needed (e.g. *In your experience how does internal motivation develop at your site? What nurtures it and what obstructs it?").* While questions and prompts were designed to elicit discussion of SDT needs, special care was taken to ensure neutrality, allowing for no directing of the responses toward frustration or satisfaction of needs. Transcripts underwent three cycles of coding, with Cycle 1 codes being the broadest in scope. This section uses those broad code titles as sub-section headings, briefly describing the findings for each. Table 1 shows Cycle 1 and Cycle 2 codes, with interview excerpts as representative examples.

Table 1

Codes Derived from Interview Transcripts by the Researcher, with Representative Excerpts

Cycle 1 Codes	Cycle 2 Codes	Representative Excerpts
Workplace Climate	Isolation in Classroom (IiC)	So I think it's been better for me just doing my own thing, 'cause I can just put my energy into my own things and I don't get so frustrated. I made a decision to just pull back and do my own thing. -Sadie
	Not Treated as a Professional (NTaP)	There is no comforting gathering spot, such as a coffee pot that is active. There aren't even proper office supplies by the copier to make one feel welcome. -Cassidy
	Leadership Orientation (LsO)	I think that her leadership style is to be very personal and connected to each staff person, but she's also very willing to direct them, and call them out if they're, ...I think part of it is the personal way in which she approaches her job. -Sarah

Collaboration & Professional Development	Organic Collaboration (OC)	One thing that happened last year is that I was with a very experienced teacher …she could help me with all this history stuff that she had done that I wasn't ready for and just gave me a lot of support with my English program…I feel like collaborating really helps you think out the topic because when I was making these science journals for example, I was like "I'm gonna do this, this, and this," and she was like "Well what about this?" and I was like "Oh I didn't think of that!" It really helps you bounce things off each other. I feel like I come up with ideas quicker and come up with a lot more ideas. -Irene
	Structured Collaboration (SC)	They put us together in a room and it's been okay because we can typically get together as a district wide grade level, get given a task, and really get something accomplished. It's been great. When I've been in other grade levels nothing happens. You just sit and complain about this that and the other thing and no nothing really happens in terms of--you don't walk out of there to teach a lesson the next day, you don't walk out of there with materials to do your job next week, but in [my current grade level] it's been productive. -Adrian
	Compulsory Collaboration (CC)	We were supposed to be working together in either grade levels or cross grade level groups, So we were supposed to be planning, and they would give us specific things to plan about...We never knew. I think, they'd go "we want you to collaborate" and we'd be like "What do you want us to collaborate on?" and nobody had very clear ideas about what it is they wanted us to work on. -Adrian
	Professional Development (PD)	So we did Common Core Reading, then we did Common Core math, now we're doing culturally responsive teaching. The principal has been really an advocate for making sure that we have teams at those things and that they bring things back to the site. -Sarah
Administrative Actions	Actions from Above – Controlling (AfA-C)	Most of what we do, and when we do it, and how we do it, is dictated through a schedule by the administrator. You will do ten minutes of this music a day, you will use this CD, these are the notes you read aloud to the kids. We are mandated to do remediation during a specific thirty-five minute period of the day, four days a week, and we are to ability-level our kids. -Ingrid
	Actions from Above – Autonomy Supportive (AfA-A)	They formed a district math committee of teachers to look at all the programs out there and make recommendations to the superintendent on what to pilot, and then buy. It was voluntary, two teachers per grade level. -Ingrid
	Actions beyond Principal – Controlling (AbP-C)	It's hard to be an agent of change when there are so many constrictions you know with policies and procedures and practices that are dictated by people who, often in California, have never set foot in a classroom ... So you have CDE, you have your LEA, you have your district, then you have your site, and then you have your classroom with your children in it. -Chandra

	Actions beyond Principal – Autonomy Supportive (AbP-A)	The new funding model is supposed to give stakeholders some say, so we should be consulted more in the future, and that feels good because teachers in so many ways are more in the know than the people who usually make the call. - Ingrid
	Has Effect on Autonomy (HEoA)	I think the school with the most comradery, which really led to great outcomes for the students, was at a private school. we were given time to work together during school time every week. We planned amazing things together and had a lot of freedom to do whatever we wanted. that came from tremendous trust at the top. -Cassidy
Effects of Actions	Has Effect on Competence (HEoC)	Finally, I integrated [the mandated curriculum] into this, but I had to really fight to do that. And I could not even get behind it! Like I had no passion for it, so like, if I'm not passionate about it, well then half of its, half the battle is defeated right there cause if I don't have passion about what I'm teaching I can't transpose that to the kids. -Sadie
	Has Effect on Relatedness (HEoR)	Our teachers basically feel really lucky to be there, they feel supported by their principal, they feel like they have a voice, um if they feel like something is too much I can say this is too much, she'll say OK let's not do it right now. -Sarah
	Response to Control (RtC)	And you don't have to be yelled at personally, but if you're in a meeting and she yells at someone else because they, you know, stated their opinion in a very professional and kind way, and they get yelled at for it, it pretty much puts a damper on someone else really stepping up and doing the same. -Sadie
Examples of Teacher Behavior	Example of Agentic Behavior (ExAB)	They [specific co-workers] would find ways to make the change...but they would be very cautious about going up the chain of command. They would find a way to solve their own issue, they're very motivated people, very talented people, who would find a way without ever asking administration or the people they work for help. -Adrain
	Example of Passive Behavior (ExPB)	When issues between staff members happen, I generally just cave to the person in charge... there just isn't time in the day to fight battles. "Yes is more powerful than No." -Cassidy
	Curricular Support (CS)	There are things that I would like help with, like how to incorporate the writing program into the rest of the curriculum, but it's not like we get help with things we need, we have to use convoluted and weird steps, and there's no way to integrate it. -Sadie
Needs at Sites	Support from Administrator (SA)	I mean if you have a staff member that is trying to file grievances on four of the other staff members in the school and you never get 'em down in a room and talk to each other, and you say one thing to one person and another thing to another person, it's like a dysfunctional family. -Sadie

Collaborative Planning Time (CPT)	Even though we have the grade level meetings, we're still directed by administration. So teachers don't have any dedicated time to just work together, just team planning time, what are we going to do tomorrow? How are we going to teach math for the next two weeks? How are we going to teach reading for the next two weeks? How are we going to use our assessment data, whether it's formative or summative, to figure out, you know, how we did this, and what we're going to do next. That kind of time doesn't exist. -Sarah
Specialist Support at Site (SSaS)	...to see a support staff [counselor, special education teacher, etc], maybe a certificated support staff that is here five days a week that is part of the staff 24/7 that's kind of like you know, doing the work with us all the time as opposed to being told "no so-and-so's not here today; so-and-so's not available to meet Monday's or Wednesday's; so-and-so's not able to make it." -Chandra

Table 1

Workplace Climate. Workplace climate refers to the cultural aspects of school sites

such as professional atmosphere and functionality of relationship. It is summarized here using

input from participants across all five sites, and so does not speak specifically about any site in

particular. There were six separate claims that teachers were isolated in their classrooms. One

teacher stated: "I think overall you're just pretty much a stand-alone...and your classroom is your

kingdom…" Three interviewees mentioned that teachers were not treated as professionals, and

each cited the lack of provision of one or more specific resources as an example (copy supplies,

coffee maker, adult sized chairs in meetings). Of the eleven expressions about professional

development, six mentioned it was mandated and offered no choice to teachers; two mentioned it

was not meeting their needs; two stated it was "not useful"; and one said a measure of choice

was given them in selecting a learning topic. There were 22 descriptions of leadership orientation

at sites: seven described relatedness-frustrating situations, while three described relatedness-

satisfying situations; five participants described competence frustrating situations, while one

described a competence satisfying situation; four described autonomy satisfying situations while two described autonomy frustrating situations. More detail will be given about levels of frustration and satisfaction in Phase 3 of the findings analysis.

Collaboration and Professional Development. Collaboration refers both to individuals sharing work tasks in an informal capacity, and to the more structured, formalized interactions that take place as a result of administrative planning.

Across the eight interviews there were thirty descriptions of collaboration and eleven descriptions of professional development situations. Eleven of the collaboration examples discussed organic collaboration in which participants themselves played key decision-making roles. The majority of these were two to three person groups, but some were larger: "Certain grade levels get together district wide and plan together, so second grade does that, I think they meet weekly, or every other week somewhere," a participant explained.

Another eleven examples spoke of a more structured form of collaboration. In the majority of these examples agendas were set by superiors, but in some cases participants were given the opportunity to develop their own collaborative paths. One interviewee told of a mentorship: "In the last few years I've been able to mentor brand new teachers and we've collaborated and we got there instantaneously…there's a chemistry. I've done that three times over the last four years and it's been really remarkable relationships."

The final eight examples spoke of a more compulsory form of collaboration in which the participants had rigid roles and tasks. These mostly took place in meeting settings rather than teaching context. One teacher spoke of this type of collaboration: "The principal will say 'You have to meet between four o'clock and five o'clock and tell me whose room you're going to

meet in' [same grade levels met together]. She'll say 'Ok 6th grade is meeting together and

you're gonna do some kind of ELD plan.' We've only done it twice. One day we were supposed

to do ELD and one day we were supposed to do science."

Professional development can also be a form of collaborative engagement. Of the eleven

expressions about professional development, six mentioned it was mandated and offered teachers

no choice; two mentioned their needs were not being met; two stated it was "not useful"; and one

said some choice was given them. "I think they've felt a bit overwhelmed by just the amount of

PD that's happened in the broad scope of it," suggested one teacher. Another provided more

detail: "So the training is after school one day from 4-6, so it's kind of like a 'make-it, take it'

[meaning that session is need-based, not compulsory]." She goes on to explain that the other

three days of training, as well as the participation in three cycles of lesson study, were

mandatory.

Administrative Actions. Administrative actions refer to incidents described by

interviewees in which an administrator took some form of action that affected the staff or the site

culture in a way that connects to any of the three SDT needs (autonomy, competence,

relatedness). The majority of the recorded incidents were principal actions; the others were

administered by someone (or entity) above the principal.

Of the thirty-five descriptions of principal actions ten were autonomy-supportive. These

incidents were marked most strongly by the provision of voice and choice. To a lesser degree,

they offered teachers the chance to lead, or the option to receive support. Here an interviewee

discusses a process occurring at one school in which the development of a revised school vision

has balanced administrative and staff input, and is now entering a phase of reaching out to other

stakeholders: "Our next steps are to do a community engagement process around it, involving parents and students and community members through surveys."

The remaining twenty-five descriptions of principal actions fell into the "controlling" category. Ten prescribed how teachers spent their time, eight prescribed curricula, six applied other administrative pressure, and one offered incentive. One interviewee explains how the implementations of a required program achieves oversight: "Do they have the stuff [that they've been asked to teach] up in their room where facilitators can see that they're doing it, how do kids respond when a facilitator says, 'Bring your folder to the rug and let's do a mini-lesson,' and they know exactly the routine…then the facilitator knows that the teacher is doing it. [The PD facilitators] ask every teacher to give provide a schedule of when they're teaching it, the facilitator goes in and they are doing it, so that's the first measure of success."

Interviewees described ten additional examples of administrative action that went beyond the purview of the principal. Nine of these fell under the category of "controlling" and the remaining one demonstrated autonomy-support. Of the controlling examples three exhibited federal control, one exhibited state control, and five exhibited district control. The autonomy-supportive action was also within district control. In describing the power that lies at the top, one teacher noted: "I've got some kind of protection. My immediate administrator does not. They're serving at the will of somebody so they're -- principals anyway -- are in a real difficult position: they're being sandwiched between me, the needs of me and my class, and the needs of the administration above them."

Effects of Actions. The interviews provided insight into a wide array of effects that certain actions from above had on staff, and on site culture. A category was made for each effect

relating to a psychological need (autonomy, competence, relatedness), and an additional category was made to contain specific "responses to control" exhibited by teachers.

Of the thirteen incidents that had effects on teacher autonomy, seven constricted teacher choice, while five described teachers being given the opportunity to make a choice. One interviewee described the excitements of teachers in their efforts to select a new districtwide math program to pilot. Another teacher described an experience she had at a previous school: "We were given time to work together during school time every week. We planned amazing things together and had a lot of freedom to do what we wanted."

Fourteen incidents had notable effects on teacher competence. Twelve of these served to hamper competence, while two served to enhance it. In describing her struggle to work a required curriculum into the simultaneous use of another curriculum, this teacher describes the effect: "Finally I integrated it, but I had to really fight [administration] to do that. And I could not even get behind it! Like I had no passion for it, so, if I'm not passionate about it, well then half the battle is defeated right there because if I don't have passion about what I'm teaching I can't transpose that to the kids."

Of the twenty-two incidents that had effects on teacher relatedness, thirteen revealed a lack of cohesion among the staff; five revealed that participants did not feel recognized or appreciated by the group; two showed a strained relationship with the administrator; and two spoke of a strong one-on-one connection to another staff member. One teacher spoke of the isolating effect of administrative instability: "As a result of changing administration, and just not feeling supported in that area…I think that it's had an impact on whether we're working together towards change, or whether we're in our own separate little spaces." Another teacher, new to the

school site this year, explained the difficulty in getting to know other staff members: "The only time I get to meet the rest of the staff is like maybe once a month at the staff meeting or if I happen to run into them in the office. I only know the teachers whose classrooms are close to mine and I've learned a few other names."

The final category in this section captured seventeen individual responses to imposed controls. These fell into four smaller categories: to subvert the control, to retreat or isolate, to confront, and to "play the game." One response remained undefined. The most common was the subversive response, exemplified here: "[There was] some resistance toward the district wide math benchmark assessment…so, for the first benchmark assessment only one teacher out of ten did the assessment." The interviewee explains that a meeting was held in which the ten teachers were to discuss the outcomes of the assessment, but instead they disclosed they had not done the assessment because they felt it may be used as an assessment of *their* performance as teachers, and chose to subvert the directive.

Some teachers described retreating to the confines of their own classroom in response to controls, and others confronted the issue head on, often using policy or union support. A minority of responses also described a "play the game" response in which they knew the activity they engaged in was a mere demonstration of what administrators wanted to see: "You must learn to teach under the [guise of] paper mache because administrators are going to fly by to make sure they know what you're doing, so make sure you got your poster up, make sure the manual is open to the right page, make sure the stuff is going on, and then you go out and do the job you're really going to do."

Examples of Teacher Behavior. Examples of teacher behavior were collected and analyzed in relation to agentic and passive orientations. Of the thirty-four examples collected twenty-four were agentic in nature, and ten were passive. Behaviors were considered agentic when the individual or group demonstrated active and constructive means to solve problems, gain knowledge, or gain positioning. Behaviors were considered passive when the individual demonstrated the need or desire for others to solve their problems, provide them knowledge, or enable their position.

The twenty-four examples of agentic behavior were further categorized: Ten were subversive in nature; five demonstrated creativity; five demonstrated notable assertiveness; and four were collaborative efforts. One teacher described being overwhelmed with the workload but was confounded as to what had changed over the years. Eventually the teacher drew up a schematic identify and accounting for every minute of teaching time throughout the week; slowly the picture began to reveal both the inordinate amount of time devoted to district mandates, and the lack of integration of those mandates with other curricula and with the everyday demands of teaching. This took a solution oriented mindset, assertiveness, creativity, and an inquisitive bent, making it an exemplar of agentic teacher behavior.

Of the ten examples of passive behavior the majority expressed a desire for others to impose structure on a process or task they were meant to engage in. Some expressed dismay at the lack of curricula from which to teach; others expressed the need for an organizational framework for their teaching materials; others described a lack of volition around workplace conflicts.

Needs at Sites. There were seventeen accounts of interviewees noting specific deficits or needs at their sites. Five pointed to a need for more curriculum support, four mentioned the need for more support from their administrator, four spoke of the need for more collaborative planning time, two identified a lack of specialist support at their sites, and two were general in nature. One teacher expressed frustration at not having more designated time to collaborate with co-workers: "I think even though we have the grade level meetings, we're still directed by administration. So teachers don't have any dedicated time to just work together, just team planning time …"

PHASE 3: INTEGRATION OF FINDINGS TO ARRIVE AT RESULTS

This section examines the research findings using the integrated methodology of explanatory sequential design (Creswell, 2016). It begins by determining what the qualitative results suggest about the contradictions and lack of clarity revealed by the quantitative data. Then it draws a broader set of conclusions based on an integration of all findings into the research framework, SDT (self-determination theory).

Accounting for the discrepancy. The quantitative data showed a discrepancy between reported levels of frustration and satisfaction for relatedness and autonomy needs, with the latter discrepancy being more pronounced. The data also pointed to a more generalized lack of clarity around the satisfaction of relatedness and autonomy, again with an emphasis on the latter (this was shown by the lack of inverse functionality of the BPNSFP couplets).

To account for the relatedness discrepancy the researcher examined the five statements on the BPNSFP which demonstrated a reported extreme for either frustration or satisfaction of relatedness across all participants. Analysis of the statements revealed that the low frustration

levels centered on the *absence* of feelings around exclusion, social distancing, and the perception of being disliked, as well as the *presence* of feelings around being close and connected to others, and being cared for by others. Interview questions were designed to elicit the discussion of these social and professional relationships without the focus being placed on the relationships themselves. When individuals were asked whether they felt liked by others (as in the BPSFP), their ego was likely to play into the construction of their answer. The researcher therefor designed the interview prompts to "background" any such notion of likability, thereby eliciting discussion about relatedness that was less centered on the preservation of a participant's ego (e.g. *Discuss your site's atmosphere. How would you describe it? Are you satisfied with it, or are changes needed? Explain.*).

To account for the autonomy discrepancy the researcher examined the four statements on the BPNSFP which demonstrated a reported extreme for autonomy across all participants; each was an extreme for satisfaction rather than frustration. Analysis of the four statements revealed that satisfaction of autonomy was rooted in participants' having choice with regard to decisions, expressions, and actions. Interview prompts, therefor, were designed to elicit discussion that provided a more in depth understanding of how choice informed participants' sense of autonomy (e.g. *Would you say that teachers at your site demonstrate agency? What elements of your site might contribute to this dynamic?*).

A broad assessment of the interview results suggests the twenty-four statement scale was not able to account for the subtle and often dichotomous interplay between needs and frustrations of participants. For example, while most teachers feel they have one or two collegial connections at their site, other relations across that site have the potential to "override" their satisfaction for

the relatedness need. In some cases this was the result of one individual: "We have one member

of our team that never really got out of high schools…it creates a lot of problems. We used to do

a lot more things together as a team, we used to go have drinks, do things outside of school. Not

so much anymore."

According to the interview results autonomy needs existed at different levels, primarily

the personal and the professional. The four BPNSFP statements that collectively resulted in the

strongest ratings for satisfaction each operated on the personal level; that is, they incorporated

the personal identity held by the participant (e.g. *I feel my choices express who I really am*).

These statements stand in contrast to much of the interview content around autonomy, which

focused more on professional autonomy, as exemplified in this excerpt: "Those lessons are

mandated. What day, where, and why. Then we have this new writing program, so they don't do

it in the afternoons or evenings, you're pulled out of your classroom: You're to be here – the day,

the time, the place, the sub is ordered for you…"

In the quantitative findings relatedness and autonomy needs were fraught with some level

of contradiction. While this may be due in part to the personal preservation of ego and to some

inconsistencies around the distinctions of needs, it is also likely an indication of a broader and

unknown phenomenon.

Assessing for overall alignment. According to the quantitative data, levels of

satisfaction for all three needs were relatively high (average scores on a 1-5 Likert scale:

autonomy 3.92, competence 4.21, relatedness 4.36). The qualitative data failed to confirm these

findings. When all 284 coded interview excerpts were reorganized according to frustration or

satisfaction of each need, there was a 70-97 ratio of excerpts favoring autonomy frustration, a

16-51 ratio favoring competence frustration, and a 15-35 ratio favoring relatedness frustration. While frequency of excerpts is in no way a definitive measure, the discrepancy between the quantitative and qualitative results is notable. Likely each data set tells a relevant story from a different vantage point.

Synthesized results. In the final phase of analysis, the researcher systematically reviewed the 284 interview excerpts again, selecting all phrases and passages that fell into the categories of autonomy, competence, and relatedness (in many cases this involved dismantling excerpts into smaller units of meaning). Next, these selections were sorted into categories of frustration or satisfaction for each need. Finally, each set of phrases and passages (six in total: two for each SDT need) were subjected to an exhaustive examination, and ultimately were distilled. This integrative analysis of findings into the research framework enabled a synthesizing process that culminated in a set of twelve factors that were instrumental in the development or encumbrance of teacher agency within the district. The factors, displayed in Table 2, are organized according to a SDT schema, which asserts that a teachers' sense of autonomy, competence, and relatedness are key factors in their development of professional agency. The farthest left column names the psychological need, the next column lists the operative factors that play key roles in the frustration/satisfaction of that need, and the final two columns provide conclusive outcomes of the frustration and satisfaction of each operative factor related to the need.

Table 2

Factors that Lead to and Encumber Teacher Agency

Human Need	Operative Factor	Need Frustration	Need Satisfaction
Autonomy	Demonstration of trust	When mistrust is conveyed, it nurtures job frustration, subversive actions, and a "watch your back" climate.	When trust is conveyed, it nurtures creativity, congeniality, and a productive climate
	Opportunity for voice	When voice is restricted or denied teachers pull back their efforts, demonstrate decreased job enthusiasm, and play a minimized role in affecting change.	When voice is given, teachers feel empowered and tend to work with more intrinsic motivation.
	Degree of freedom	When teachers are faced with controls they tend to decrease their efforts, view their superiors as opponents rather than teammates, and often resort to subversive measures to accomplish goals.	When teachers are given freedom to arrive at outcomes through means of their own design they tend to be more engaged, are better able to empathize with their superiors, and have a more positive job outlook.
	Encouragement to try new things	When teachers sense that trying out new ideas is discouraged by their administrator, they exhibit anxiety about stepping out of bounds, are less likely to engage in constructive problem solving, and are less motivated.	When teachers believe that administrators are supportive of trying out new ideas, they exhibit higher levels of motivation, creativity, and teamwork.
Competence	Treated as professional	When teachers' roles are diminished by prescriptive programs or controlling systems of dominion, they demonstrate less competence in their jobs.	When teachers are respected as professionals who possess specialized knowledge and skills, they are more likely to develop a sturdy sense of competence.
	Supported from above	Lack of focused support from others, deficit oriented feedback, and a disregard for job performance all result in poor levels of teacher "buy in" and decreased motivation.	Focused support, acknowledgement of needs, and acknowledgement of performance from one's teammates and one's administrators lead to greater levels of internal motivation in teachers.
	Effective communication	Poor systems of communication between and across staff members	Regular staff meetings, organic collaboration, and open systems of

		enables conflicts to grow and persist, undermining overall functionality at the site.	conflict resolution result in a more productive and able school staff.
	Resources provided	When teachers' resource needs (planning time, on site specialists, classroom supplies) are not met, they feel less to meet the demands of their job.	When some of teachers' needs are met, and the others are at least acknowledged, teachers are more likely to feel able to do their job well.
Relatedness	Affable climate	When teachers feel vulnerable, feel their freedom is on the line, or become frustrated with their site's climate, they tend to isolate inside their classrooms.	When teachers feel a sense of camaraderie with others, when they value and respect their coworkers, and when they feel content with the site climate, they tend to work more collaboratively.
	Satisfactory connection to leader	Teachers who feel "misread" and unseen by their administrators tend to be less happy in their jobs, and consider leaving their position.	Teachers who feel recognized and understood by their administrators feel a more binding connection with their workplace, and tend to feel happier.
	Leader models trust and respect	When administrators model and engage in relationships marked by mistrust and lack of mutual respect, less functional relationships develop between staff members.	When administrators model and engage in relationships based on trust and mutual respect, more functional relationships develop between members of staff.
	Productive collaboration	Teachers who engage in unproductive (often compulsory) collaboration learn to "play the game" of engagement, but often fail to connect to the learning in meaningful ways.	Teachers who collaborate productively take on new perspectives, construct new knowledge, motivate one another, and often develop a sense that they are part of something significant.

Table 2

The current study suggests the satisfaction of the three needs for autonomy, competence, and relatedness are achieved as a result of behaviors that can be actively planned for, and designed into workplace practice and culture. While these results are derived from a sample that is limited in scope, many of the takeaways from this research can be applied across a wide array of settings to improve the development of teacher agency in public schools.

CHAPTER 5 DISCUSSION /ANALYSIS

SUMMARY OF MAJOR FINDINGS

While findings on needs satisfaction for autonomy, competence, and relatedness across the district are inconclusive, definitive findings on what leads to the satisfaction and frustration of such needs across the district are clear.

Autonomy satisfaction is achieved by promoting a culture of trust, allowing teachers a significant degree of voice in decisions that affect their job, providing reasonable degrees of freedom in how they accomplish their goals, and making them feel at liberty to try new things. Outcomes of autonomy satisfaction include increased production, higher levels of motivation, more positive job outlooks, increased levels of creativity, and an increase in the incidents of teamwork across the site.

Competence satisfaction is achieved by treating teachers as professionals, ensuring they receive regular support and acknowledgment from superiors and colleagues, ensuring adequate communication on all fronts, and providing them with needed resources. Competence satisfaction results in higher levels of motivation, increased production, an overall increase in teacher ability, and teachers' development of a sturdy sense that they are good at their jobs.

Relatedness satisfaction is a result of an affable work climate, strong connections between teachers and their administrators, a modeling of both trust and respect by administrators and other key players, and collaboration that is productive in nature. Satisfaction of the need for

relatedness results in greater levels of production, the development of functional staff relationships, a happier workforce, binding feelings of connection, and more workplace collaboration.

Overall, the satisfaction of the psychological needs for autonomy, competence, and relatedness are associated with higher levels of volition, greater individual initiative, and a broad sense of well-being (Ryan & Deci, 1985, 2000a). These findings apply both to individuals, and across larger social contexts such as schools.

COMPARISON OF FINDINGS TO THE LITERATURE

Self-determination theory. Agentic behavior in teachers, in its pure form, is autonomous. When a teacher's choice is encumbered by external forces the locus of causality for that action exists not within the teacher, but outside. The action is compulsory. When actions are internalized, which often occurs when a measure of choice is implemented, the locus of causality shifts: the teacher perceives the action to be compelled from *within*. When engaging in internalized actions a teacher is more likely to engage in self-regulatory processes that demonstrate personal ownership, increased agency, and a resulting higher quality of performance (Deci & Ryan, 1987; Ryan & Deci, 2000a).

Self-determination theory (SDT) asserts that needs for autonomy, competence, and relatedness are universal necessities for well-being, and that all three must be met for an individual or a group to thrive (Deci & Ryan, 2000b). When teachers' needs are frustrated the result is decreased motivation, a lesser quality of output, alienation, and ill-being; when teachers' needs are satisfied, the result is psychological growth, internalization of actions, greater levels of

initiative, and general well-being (Van et al., 2016). These results apply to both individual teachers and larger social contexts, in this case, schools themselves.

Individual teachers in the classroom. Two studies demonstrated the direct impact that teacher behavior had on student behavior in the classroom. Roth et al. (2007) showed that autonomously motivated teachers positively affected students' autonomous motivation for learning. Mohamadi et al. (2011) identified a positive correlation between teacher self-efficacy beliefs and high levels of student achievement. Each finding points to an important result of self-determined (or agentic) behavior in teachers. One interviewee in the current study described her lack of passion in implementing a key element of curriculum which she was required to use; she explained that she knew her indifference to the material would be passed on to her students. While this teacher was cognizant of the potential results (and so may have managed to counterbalance them), many teachers in similar situations may not possess the same awareness.

In her study of charter schools, Torres (2014) found that teacher needs for autonomy versus their needs for support varied. While some teachers experienced autonomy around curricula and within the confines of their own classrooms, they desired more choice around larger school decisions that effected their students. The current study revealed some instances in which choice of this variety was extended to teachers. One interviewee, for example, spoke of a volunteer committee of teachers charged with exploring options for a math curriculum to pilot in the coming years. Another interviewee discussed the collective process (involving teachers and other stakeholders) of developing an updated vision for the school. Each instance afforded autonomy to those who may have sought it.

Teachers in the current study were at various points in their careers, resulting in a diversity of needs for support versus autonomy. The Torres study (2014) also found that poor satisfaction levels for these diverse needs resulted in teachers deciding to leave their jobs. She found that meeting the diverse needs of teachers called for flexible programs of support, rather than rigid ones. Some evidence of programs like these were revealed in the current study. One interviewee spoke of a "make it – take it" model of professional development in which teachers were invited to sign up for a specific curriculum support at will, based on their need. Others spoke of mandated professional development that did not serve their need; yet another described a segment of professional development as "insulting" to herself and her colleagues' intelligence, summing up the entire experience as a "turn off." While meeting the diverse needs of teachers can be a challenge, it is likely to result in teachers both remaining in their positions, and in their increased level of professional agency.

Shoshani and Eldor (2016) explored the relationship between learning climate (in which teachers themselves are the learners), teacher well-being, and teacher commitment. They found that when teachers engaged in active knowledge production and regular self-reflection around teaching processes, their students demonstrated higher levels of engagement; the process was mediated by teacher job-satisfaction. While some of the interviewees in the current study discussed processes of their own learning and reflection, the concept of knowledge production by teachers was absent from all conversations. There were some instances in which a self-reflective process was applied, but none in which the process was formally facilitated. Teachers in the district, many of whom tend to remain isolated in their own classrooms, do not show evidence that they are engaging in what Shoshani and Eldor call a "learning climate."

Teachers in collaborative settings. Chen and Kanfer (2006) found that teams can serve both as a source for motivated action, and they can encumber motivated action. While the vulnerability of teams may be a deterrent to developing systems in which teachers are not isolated in their own classrooms for the bulk of their days, teamwork also provides widespread benefits, including the production of higher quality outputs. Karaarslan et al. (2013) established a strong correlation between teamwork and satisfaction of the need for relatedness. Many interview excerpts discuss either a lack of connection to others at their site, or a strong connection with one or more teacher. Some excerpts discuss previous experiences in which the speaker collaborated on a larger scale, either with entire teams in a formal capacity, or in more loosely affiliated groups, informally. Benefits noted by interviewees included the taking of a new perspective, the feeling of being supported and being "in this together," the development of collective motivation, and the production of a better overall outcome.

Guglielmi et al. (2014) determined that organizational identification (the perception of belonging to one's organization) conduced toward increased motivation in teachers. Additionally, the researchers found that opportunities for professional development catalyzed this identification process. Viewed through a SDT framework these results point to organizational identification as one factor enabling the satisfaction of the need for relatedness. However, professional development does not automatically play the catalyzing role seen in the Gugliemi et al. (2014) study. Many interviewees in the current study described mandated forms of professional development that they found oppressive of their time and energy. Buy-in is one essential element in the creation of organizational identity.

Wang and Zhang (2014) found that shifts from a traditional isolated teacher-in-classroom model to a collaborative learning environment enabled teachers' professional growth and increased levels of autonomy. Again, interview excerpts from the current study demonstrate a high level of teacher isolation, and low levels of collaboration that is productive in nature. Wang and Zhang's (2014) study demonstrates a successful transformation of this dynamic into one in which teachers operate inside an interdependent network of engaged professionals, leading the way for others to follow suit.

Bodman et al. (2012) found that linear models of professional development – in which a simple transfer of knowledge occurs – do not promote construction of knowledge, ideas, or solutions among teachers. Alternately, productive professional development -- in which teachers actively construct and reflect upon their own newly formed knowledge – facilitates meaningful professional growth, an increase in capacity, and an enhanced sense of professional identity; all are elements of teacher beliefs that Greenfield (2015) suggests make up the foundation of teacher resilience.

In the current study the interview excerpts reveal a frustration amongst teachers regarding the quality and nature of professional development in the district. Interviewees described an array of displeasures around these sessions: not being treated as professionals, feeling that their time was being wasted, and feeling of being demeaned by the session content or by the activities in which they were meant to engage. If professional development sessions at the district can transform into models that make use of what Bodman et al. (2012) call interpretive and associative knowledge, teachers will be more likely to experience professional growth, increase their capacities, and enhance their professional identities.

Teacher agency in relation to site leadership. Deci et al. (1989) found that when supervisors who oriented toward controlling behavior engaged in prolonged trainings and structured reflections geared to help them become more autonomy-supportive, they were able to transform much of their behavior, with progressive results for worker levels of perceived autonomy, ultimately resulting in more self-determined behaviors among workers. Because many of the interview excerpts described controlling behaviors from above, this model has some significance for possible transformation in leader orientation. However, Deci et al. (1989) also identify cases in which higher level decisions (above the supervisor) impeded job satisfaction. Only when the organization itself showed evidence of concern for employee well-being did the supervisor's autonomy-supportive behavior have a notable impact of worker performance. This dynamic may well come to the fore in school districts, which, by design, operate according to a specific hierarchy that can hamper principal influence in certain cases.

Graves and Luciano (2013) note that high-quality exchanges between a leader and a subordinate benefit the subordinate, the leader, and the organization. Translated into language that fits the context of the current study, this suggests that high-quality relationships between a principal and a teacher benefit the teacher, the principal, and the school (including the students). Results of their study also indicate that such relationships also correlate positively to increased autonomy, competence, and relatedness in employees. Many interview excerpts describe strong relationships between teachers and principals; others describe a strong sense of disconnection to site leaders; and some describe a strained or confrontational dynamic. To bolster satisfaction for autonomy, competence, and relatedness needs in teachers, principals can actively seek to improve relations with individual teachers.

Jang et al. (2016) found that levels of engagement and disengagement of subordinates was instrumental in shaping their superior's motivating style. More specifically, the research suggests that leaders become more controlling or more autonomy-supportive as a function of subordinate levels of engagement. This finding implies the need for heightened metacognitive awareness on the part of administrators and teachers as they interact with one another. Many interview excerpts described frustration around relationships with site leaders. To the extent that each party develops an awareness of the way behaviors shape responses, and vice versa, more productive interactions can prevail.

Den Hartog and Belschak (2012) found a positive relationship between transformational leadership and proactive employee behavior, as well as a positive relationship between job autonomy and proactive behavior in employees. However, these relationships were each relative to differences in individuals, and to differences across contexts. Specifically, enhanced proactivity only emerged as a result of transformational leadership when the degree of "situation autonomy" (relative freedom) present in the job matched the worker's level of "role-breadth self-efficacy" (or the degree to which the worker was comfortable carrying out a set of tasks that did not follow a prescriptive track). In the context of the current study: if a teacher's job allowed a degree of freedom around methods for achieving a specific goal, and if that teacher had a high level of role-breadth self-efficacy (was comfortable going off script, for example), then transformational leadership enhanced proactive behavior. But when there was a mismatch in the job's allowance of freedom, and the role-breadth self-efficacy of the teacher, then a style of transformational leadership instead led to decreased levels of proactive behavior. This finding

demonstrates the nuanced and delicate line that administrators must walk in their efforts to both empower and support a diverse array of teachers.

LIMITATIONS/GAPS IN THE RESEARCH

The current study is marked by an array of limitations. The sample was both small and unique. While the response rate for participants reached thirty-seven percent, the district comprises only one high school, two middles schools, and three elementary schools, each of a modest size. At present, the majority of teachers have held their positions for more than twenty years. The staff are overwhelmingly Caucasian and female. Likely this lack of diversity has resulted in a less than representative sample.

It is also possible that the eight participants selected as interviewees each possessed select characteristics, resulting in a less accurate composite description of teacher experiences across the district. For example, all teachers who opted into the interview pool could have possessed greater levels of agency than those who did not opt in. Alternately, the interviewees may each have opted into the pool as a means to express displeasure, while the more contented members of the staff felt a lessor need to voice ideas. The researcher had no means to account for these and other selecting characteristics.

IMPLICATIONS FOR FUTURE RESEARCH

The current study touched on a number of important aspects that inform teacher agency, was unable to address many lines of important inquiry. Future researchers might consider how trust, a key ingredient for productive school culture, is achieved and sustained. Others might

explore the differences between productive and non-productive collaboration among teachers, and the accompanying implications for students. Finally, researchers might consider the role that collaboration plays in the development of internal motivation. Each of these topics intersects with the constructs that make up teacher agency, and can contribute to the scholarship that is helping to create a more complete understanding of what makes individuals act in the face of perceived needs for change.

OVERALL SIGNIFICANCE OF THE STUDY

The current study adds to a solid foundation of scholarship on motivation, empowerment, and leadership. It seeks to fill a gap in knowledge around what leads to agentic behavior in public school teachers, and what obstructs it. Teaching in the public realm is fraught with an array of challenges that launch from all directions. Identifying the factors that help teachers withstand and combat these challenges will enable schools and their leaders to cultivate and sustain environments that are conducive of teacher agency, ultimately leading to the end goal. student agency.

ABOUT THE AUTHOR

Jessica Hadid teaches English to 7-12 graders at a California public school. She is a fan of inventing, transforming, and revising, but will acknowledge the tried-and-true when she comes across it. She intends to continue her journey of learning for the long haul.

REFERENCES

Alderfer, C. P. (1969). An empirical test of a new theory of human needs. *Organizational Behavior and Human Performance, 4,* 143–175. doi: 10:10/160030-5073(69)90004-x

American Psychological Association. (2010). *Publication manual of the American Psychological Association.* Washington, DC: American Psychological Association.

Andrews, D., & Crowther, F. (2006). Teachers as leaders in a knowledge society: Encouraging signs of a new professionalism. *Journal of School Leadership*, *16*(5), 534-549. Retrieved from https://books.google.com/books?hl=en&lr=&id=o5cjBQAAQBAJ&oi=fnd&pg=PA534&dq=teachers+as+leaders+in+a+knowledge+society,+encouraging+signs+of+a+new+professionalism&ots=qSvM2WPxy3&sig=AnsXdrc4qL0Mdu59ZC00pWppAKw#v=onepage&q=teachers%20as%20leaders%20in%20a%20knowledge%20society%2C%20encouraging%20signs%20of%20a%20new%20professionalism&f=false

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84,* 191-215. doi: 10.1037/0033-295x.842.191

Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes, 50,* 248–287. doi: 10.1016/0749-5978(91)90022-L

Bandura, A. (2004). Invited essay: Swimming against the mainstream: The early years from chilly tributary to transformative mainstream. *Behaviour Research and Therapy*, *42,* (6)613-630. doi:10.1016/j.brat.2004.02.001

Bass, B. M. (1999). Current developments in transformational leadership: Research and applications. *The Psychologist-Manager Journal*, *3*(1), 5-21. doi:10.1037/h0095852

Boberg, J. E., & Bourgeois, S. J. (2016). The effects of integrated transformational leadership on achievement. *Journal of Educational Administration*, *54*(3), 357-374. doi: 10.1108/JEA-07-2014-0086

Bodman, S., Taylor, S., & Morris, H. (2012). Politics, policy and professional identity. *English Teaching: Practice and Critique, 11*(3), 14-25. Retrieved from http://search.proquest.com/openview/b44044cbc5d4cae2c0e5a41e49c816b1/1?pq-origsite=gscholar&cbl=736343

Bridwell-Mitchell, E. (2015). Theorizing teacher agency and reform: How institutionalized instructional practices change and persist. *Sociology of Education, 88*(2), 140-159. doi: 10.1177/003804071557559

Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Duriez, B. Lens, W., Matos, L., Mouratidis, A., Ryan, R. M., Sheldon, K. M., Soenens, B., Van Petegem, S., & Van der Kaap-Deeder, J., Verstuyf, J (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and Emotion, 39,* (2), 216-236. doi: 10.1007/s11031-014-9450-1

Chen, G., & Kanfer, R. (2006). Toward a systems theory of motivated behavior in work teams. *Research in Organizational Behavior*, *27*, 223-267. doi:10.1016/S0191-3085(06)27006-0

Creswell, J. W. (2016). Advances in mixed methods research - John W. Creswell, PhD, Keynote at 2016 CAQD Conference. Retrieved from https://www.youtube.com/watch?v=dR2QU2pZcLU

deCharms, R. (1976). *Enhancing motivation: Change in the classroom.* New York: Irvington

    Publishers.

Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal of*

    Personality and Social Psychology, 18, (1), 105-115. doi: 10.1037/h0030644

Deci, E. L. (1972). The effects of contingent and noncontingent rewards and controls

    on intrinsic motivation. *Organizational Behavior and Human Performance, 8,* (2),

    217–229. doi: 10.1016/0030-5073(72)90047-6

Deci, E. L., Cascio, W. F., & Krusell, J. (1975). Cognitive evaluation theory and some comments

    on the Calder and Staw critique. *Journal of Personality and Social Psychology, 31*(1), 81-

    85. doi:10.1037/h0076168

Deci, E. L., & Ryan, R. M. (1980). Self-determination theory: When mind mediates behavior.

    Journal of Mind and Behavior, *1*, (1), 33–43. Retrieved from

    http://www.jstor.org/stable/4385287

Deci, E. L., Neziek, J., & Sheinman, L. (1981). Characteristics of the rewarder and intrinsic

    motivation of the rewardee. *Journal of Personality & Social Psychology, 40*(1), 1-11.

    Retrieved from

    https://www.researchgate.net/publication/232517218_Characteristics_of_the_Rewarder_

    and_Intrinsic_Motivation_of_the_Rewardee

Deci, E. L., & Ryan, R. M. (1987). The support of autonomy and the control of behavior.

    Journal of Personality & Social Psychology, 53(6), 1024-1037. doi: 10.1037/0022-

    3514.53.6.1024

Deci, E. L., Connell, J. P., & Ryan, R. M. (1989). Self-determination in a work organization. *Journal of Applied Psychology, 74*(4), 580. doi: 10.1037/00219010.74.4.580

Deci, E. L., Ryan, R. M., & Koestner, R. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin, 125,* (6), 627-668. doi: 10.1037/0033-2909.125.6.627

Deci, E. L., Ryan, R. M. (2013). *Intrinsic motivation and self-determination in human behavior.* New York: Springer Science and Business Media. Available from https://books.google.com/books?id=M3CpBgAAQBAJ&dq=%22locus+of+control%22+vs+%22locus+of+causality%22&source=gbs_navlinks_s

Den Hartog, D. N., & Belschak, F. D. (2012). When does transformational leadership enhance employee proactive behavior? The role of autonomy and role breadth self-efficacy. *Journal of Applied Psychology,97*(1), 194-202. doi:10.1037/a0024903

Graves, L., & Luciano, M. (2013). Self-determination at work: Understanding the role of leader-member exchange. *Motivation & Emotion, 37*(3), 518-536. doi:10.1007/s11031-012-9336-z

Greenfield, B. (2015). How can teacher resilience be protected and promoted? *Educational & Child Psychology, 32*(4), 52-68. Retrieved from http://web.a.ebscohost.com

Guglielmi, D., Panari, C., Simbula, S., & Mazzetti, G. (2014). Is it possible to motivate teachers? The role of organizational identification. *Procedia - Social and Behavioral Sciences, 116*(5), 1842-1847. doi: 10.1016/j.sbspro.2014.01.481

Jang, H., Kim, E. J., & Reeve, J. (2016). Why students become more engaged or more disengaged during the semester: A self-determination theory dual-process model. *Learning and Instruction, 43*, 27-38. doi:10.1016/j.learninstruc.2016.01.002

Kafyulilo, A. C. (2013). Professional development through teacher collaboration: An approach to

    enhance teaching and learning in science and mathematics in Tanzania. *Africa Education*

    Review, *10*(4), 671-688. doi:10.1080/18146627.2013.853560

Kanfer, R., & Chen, G. (2016). Motivation in organizational behavior: History, advances and

    prospects. *Organizational Behavior and Human Decision Processes, 136*, 6-19.

    doi:10.1016/j.obhdp.2016.06.002

Karaarslan, G., Ertepinar, H., & Sungur, S. (2013). Use of self-determination theory to support

    basic psychological needs of preservice science teachers in an environmental science course.

    Environmental Education Research, 19(3), 342-369. doi:10.1080/13504622.2012.695013

Lepper, M. R., Greene, D., & Nisbett, R. E. (1973). Undermining children's intrinsic interest

    with extrinsic rewards: A test of the "overjustification" hypothesis. *Journal of Personality*

    and Social Psychology, 28, (1), 129-137. doi: 10.1037/h0035519

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, *50*(4), 370-396.

    doi:10.1037/h0054346

Maslow, A. H. (1954). The instinctoid nature of basic needs. *Journal Of Personality*, *22*(3), 326.

    doi:10.1111/1467-6494.ep8930323

Matusov, E., Duyke, K., & Kayumova, S. (2016). Mapping concepts of agency in educational

    contexts. *Integrative Psychological & Behavioral Science*, *50*(3), 420. doi:10.1007/s12124-

    015-9336-0

McCarley, T. A., Peters, M. L., & Decman, J. M. (2016). Transformational leadership related to

    school climate: A multi-level analysis. *Educational Management Administration &*

    Leadership, *44*(2), 322-342. doi: 10.1177/1741143214549966

McClelland, D. C. (1986). Human motivation. Glenview, IL: Scott, Foresman and

Company. Retrieved from

https://books.google.com/books/about/Human_Motivation.html?id=vic4AAAAIAAJ

Mohamadi, F. S., Asadzadeh, H., Ahadi, H., & Jomehri, F. (2011). Testing Bandura's theory in

school. *Procedia - Social and Behavioral Sciences, 12*, 426-435. doi:

10.1016/j.sbspro.2011.02.053

Parker, S. K. (1998). Enhancing role breadth self-efficacy: The roles of job enrichment and other

organizational interventions. *Journal of Applied Psychology, 83*(6), 835-852. doi:

10.1037/0021-9010.83.6.835

Petri, H. L., (2012). *Motivation: Theory, research, application.* Available from

https://books.google.com/books?id=nqgtCQAAQBAJ&dq=motivation+theories,+late+18

00s&source=gbs_navlinks_s

Quartz, K. H., Olsen, B., Anderson, L., & Lyons, K. B. (2010). Making a difference: Developing

meaningful careers in education. Boulder, Colorado: Paradigm Publishers. Retrieved

from

https://books.google.com/books/about/Making_a_Difference.html?id=miUhSQAACAAJ

Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How teacher turnover harms student achievement.

American Educational Research Journal, *50*(1), 4-36. doi: 10.3102/0002831212463813

Roth, G., Assor, A., Kanat-Maymon, Y., & Kaplan, H. (2007). Autonomous motivation for

teaching: How self-determined teaching may lead to self-determined learning. *Journal of

Educational Psychology, 99*(4), 761-774. doi:10.1037/0022-0663.99.4.761

Ryan, R. M., & Grolnick, W. S. (1986). Origins and pawns in the classroom: Self-report and

projective assessments of individual differences in children's perceptions. *Journal of

Personality and Social Psychology, 50*(3), 550-558. doi:10.1037/0022-3514.50.3.550

Ryan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization:

Examining reasons for acting in two domains. *Journal of Personality and Social

Psychology, 57*(5), 749-761. doi:10.1037/0022-3514.57.5.749

Ryan, R. M., & Deci, E. L. (2000a). Intrinsic and extrinsic motivations: Classic definitions and

new directions. *Contemporary Educational Psychology, 25*(1), 54-67.

doi:http://dx.doi.org.ezproxy.dominican.edu/10.1006/ceps.1999.1020

Ryan, R. M., & Deci, E. L. (2000b). Self-determination theory and the facilitation of intrinsic

motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78.

doi:10.1037/0003-066X.55.1.68

Saldana, J. (2009). *The coding manual for qualitative researchers.* London, UK: Sage

Publications Ltd.

Shoshani, A., & Eldor, L. (2016). The informal learning of teachers: Learning climate, job

satisfaction and teachers' and students' motivation and well-being. *International Journal of

Educational Research, 79*, 52-63. doi:10.1016/j.ijer.2016.06.007

Torres, A. C. (2014). "Are we architects or construction workers?" re-examining teacher

autonomy and turnover in charter schools. *Education Policy Analysis Archives, 22*(124).

doi: 10.14507/epaa.v22.1614

Van, d. B., Ferris, D. L., Chang, C., & Rosen, C. C. (2016). A review of self-determination

    theory's basic psychological needs at work. *Journal of Management, 42*(5), 1195-1229.

    doi:10.1177/0149206316632058

Wang, Q., & Zhang, H. (2014). Promoting teacher autonomy through university-school

    collaborative action research. *Language Teaching Research, 18*(2), 222-241. doi:

    10.1177/1362168813505942

Wodehouse, P. G. (2010). *The adventures of Sally.* Auckland, New Zealand: The Floating Press.

    Available from

    https://books.google.com/books?id=QPhMOwqyl0kC&dq=There+is+in+certain+men+%E2

    %80%A6+a+quality+of+resilience,+a+sturdy+refusal+to+acknowledge+defeat,+which+aid

    s+them+as+effectively+in+affairs+of+the+heart+as+in+encounters+of+a+sterner+and+mor

    e+practical+kind&source=gbs_navlinks_s

APPENDIX

Interview Questions

Introduction by interviewer:

For this project, I am defining agency as *the capacity, the desire, and the will to make change in the face of a perceived need for change*.

Questions:

- Generally speaking, would you say that teachers at your site demonstrate agency? What elements of your site might contribute to this dynamic?

- A part of agency is being internally motivated. In your experience how does internal motivation develop in teachers? What nurtures it and what obstructs it?

- When issues or conflicts arise at your site (scheduling issues, issues around curriculum requirements, issues between staff members, etc.) how are they resolved? Is there an intended path for resolution, or a typical trajectory that plays out? How do you feel about it?

- Is collaboration common in your experience? What does it look like? How effective is it? What separates effective collaboration from ineffective collaboration?

- What routes for professional growth are, or have been, available to you? Discuss their effectiveness.

- Discuss your site's atmosphere. How would you describe it? Are you satisfied with it, or are changes needed? Explain.

- What are some changes that you believe would improve general conditions for teachers at your site?