School Administrator Support of Teachers: A Systematic Review (2000-2019)

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There have been a number of narrative reviews that focus on the relationship of school administrators and the teachers at their school sites. This systematic review evaluates a select group of research articles published between the years 2000 and 2019. The main questions for this review ask: (a) what does recent literature tell us about the support school administrators provide to teachers? and (b) what does recent literature tell us about a school administrator's ability to retain effective teachers? Seven qualitative and 24 quantitative studies were selected for inclusion in this review, all evaluated for quality using research based instruments. Seventy-nine percent of the prescribed evaluative criteria were met. The majority of the included research focused on statistical analyses of city, state and national datasets. Results of this investigation revealed that certain administrative efforts, used independently or in combination, are effective in supporting teachers, including induction, mentoring, staffing support, course assignment changes, resource and professional development enhancement, increased autonomy and agency, meaningful and constructive evaluations, workload abatement, discipline/rule enforcement and support with challenging parents. Implications of this study endorses the use of research-based practices by administrators to support the teachers at their sites, resulting in increased job satisfaction and student learning. This study provides researchers and policymakers with a comprehensive review of recent, peer-reviewed literature regarding administrative support of teachers.

Keywords: *administration, support, early-career, retention, attrition*

Approximately half of all teachers leave the profession within the first five years of teaching (Foster, 2010). Enrollment in teacher preparation programs is declining, and it is estimated that teacher turnover costs $7.3 billion each year (National Math and Science Initiative, 2013). A plethora of research over the past twenty years supports the claim that school administrators are connected, in a substantive way, to teacher retention. The authors assert that this research will justify increased support of teachers by their administrators, which ultimately improves teacher satisfaction, and leads to improved learning for students.

Teachers who feel that they are supported by their administrators in carrying out professional responsibilities are more likely to be satisfied with their career and remain in teaching longer than those who do not feel this support (Boyd et al., 2011; Curtis, 2012; Djonko-Moore, 2016; Ingersoll, 2003; Johnson & Birkeland, 2003; Podolsky et al., 2016; Redding & Henry, 2018; Ronfeldt & McQueen, 2017; Tickle, Chang & Kim, 2011). Although there have been reviews of literature related to teacher retention which included studies published prior to the year 2005 (Borman & Dowling, 2008; Guarino, Santibañez & Daley, 2006), a more recent comprehensive summary of literature related specifically to the connections between administrative practices and teacher retention has not been completed.

Appropriate management practices are necessary to support teacher autonomy, their degree of input for decisions, and disciplinary practices (Djonko-Moore, 2012; Painter, 2000). Supportive practices provided by administration such as mentoring programs, staff development, assistance with parents, and support in general with teachers' personal and professional issues ultimately affect teachers' decisions to remain in the profession (Carver-Thomas & Darling-Hammond, 2017; Dee & Wyckoff, 2013; Johnson & Birkeland, 2003; Organization for Economic Co-operation and Development, 2014; Schaefer, 2013). Teachers' responses to administrative practices can affect teacher trust of administration, the ability of teachers to ask for support and their general ability to do their job effectively (Corbell, Osborne & Reiman, 2010; Hanselman, 2016; Ladd, 2011; Mawhinney, 2008).

A few studies showed that teacher retention is higher in rural schools relative to their non-rural counterparts (Djonko-Moore, 2012; Djonko-Moore, 2016; Guarino et al., 2006; Hammer, Hughes, McClure, Reeves & Delgado, 2005; McClure & Reeves, 2004; Sutcher, Darling-Hammond & Carver-Thomas, 2016). Reasons include lower teacher pay, lower per pupil spending, reduced access to professional development and instructional materials, social isolation, increased teaching load (e.g. multiple subject teaching) and reduced access to a hiring pool of more diverse and well-qualified teacher candidates. Countering these obstacles are stronger ties to the community and, in some circumstances, lower student to teacher ratios (Lieberman, 2000).

Other demands on the teaching profession have come about due to federal mandates provided in the No Child Left Behind (NCLB) Act of 2001 (Hammer et al., 2005). The increased requirements for teachers to be certified, and evaluated, as highly qualified teachers (HQT) and on the job accountability pressures related to standardized testing have affected teacher and administrator perceptions of teaching (Boyd et al., 2011; Carver-Thomas & Darling-Hammond, 2017; Dizon-Ross, 2018; Ford, Urick & Wilson, 2018; Grissom, 2009; Grissom, 2011; Hanselman, Grigg, Bruch & Gamoran, 2016; Ladd, 2011; Robinson, 2017). More recently, provisions of the Every Student Succeeds Act (ESSA), which passed into law in 2015, delegates provisions for assessment, accountability and measuring of teacher/student performance to states and local school districts, which can add additional layers of responsibility for teachers (Jones, Khalil & Dixon, 2017).

It is important to note that research on teacher retention includes investigations regarding the variety of ways that teachers are counted as "leavers", even though they may remain in the profession (Carver-Thomas & Darling-Hammond, 2017; Goldring et al., 2014; Guarino et al., 2006; Hammer, Hughes, McClure, Reeves & Delgado, 2005; McClure & Reeves, 2004; Redding & Henry, 2018). For instance, teachers who are dissatisfied with their administrator may choose to transfer to another school, whether it be inside or outside of their school district. Some teachers leave the profession for reasons that are not associated to administrator support, such as temporarily focusing on family (e.g. extended maternity), enrolling in a full time program of study, or simply exploring other career opportunities, including the means to become school administrators.

That said, there are a number of significant studies that focus on teachers leaving the profession specifically due to the lack of administrative support. In a recent study conducted by the Learning Policy Institute (Podolsky et al., 2016) which included a nationally-representative sample of teachers across the United States, the authors reported that:

> approximately 25% of public school teachers who left the profession in 2012 reported that dissatisfaction with the influence of school assessment and accountability measures on their teaching or curriculum was extremely or very important in their decision to leave. (p. vii)

A number of studies focus on the ability of school administrators to ensure that the school environment is supportive of teaching, with effective professional development, substantive evaluations of teaching and avenues for engagement with other teachers and members of the local community (Carver-Thomas & Darling-Hammond, 2017; Dizon-Ross, 2018; Curtis, 2012; Djonko-Moore, 2012; Djonko-Moore, 2016; Ford, Urick & Wilson, 2018; Grissom & Loeb, 2009; Grissom, 2011; Hanselman et al., 2016; Johnson & Birkeland, 2003; Ladd, 2011; OECD, 2014; Painter, 2000; Podolsky et al., 2016). School administrators are asked to not only ensure that a teacher's workplace is well-maintained, collegial and offers easy access to materials/resources, administrators should also support their teachers by positively recognizing their efforts in and out of the classroom. In addition, administrators can support teachers with student discipline, managing unreasonable parents, and working to ensure that all teachers have input as they work with others toward shared goals. Administrators providing a degree of professional autonomy in the classroom is especially regarded as a key element in ensuring a productive environment for teaching.

Finally, the quality and design of programs which further ensure that novice teachers are better prepared for teaching are connected to the degree that these teachers require direct assistance from their school administrators (Carver-Thomas & Darling-Hammond, 2017; OECD, 2014; Podolsky et al., 2016; Ronfeldt & McQueen, 2017; Smith & Ingersoll, 2004). These programs include: (a) teacher preparation programs for both traditionally and alternatively credentialed teachers, (b) induction programs that provide support for teachers in the initial year(s) of their teaching, and (c) mentoring programs at the school and district levels. Thus, the degree that administrators are able to support their teachers by endorsing teacher autonomy and decision-making, providing resources to those serving certain populations, making connections to students from a wide variety (i.e. urban/suburban/rural) settings, ensuring high quality teachers are hired and evaluated effectively, developing a healthy school environment, and endorsing substantive teacher professional development are important connections between practices school administrators employ and the teachers they serve.

This systematic review depicts the effects that satisfactory or unsatisfactory administrative practices has on rates of teacher retention based on the literature from the past 20 years. The goal is to provide researchers and policymakers a comprehensive overview of the peer-reviewed literature between 2000 and 2019 regarding administrative support of teachers. The main questions for this review ask: (a) what does recent literature tell us about the support school administrators provide to teachers? and (b) what does recent literature tell us about a school administrator's ability to retain effective teachers? For the purposes of this review, the term "principal" is inclusive of any administrator, including associate principals, assistant principals, deans, and others serving in an administrative role in schools.

Theoretical Framework

The literature included in this review is focused on to the needs of school administrators and the teachers they serve, and as such aligns with the Basic Psychological Needs Theory (BPNT) (Ryan and Deci, 2002), a sub-theory of the Self-Determination Theory (SDT). SDT provides that personal motivation is enhanced when specific psychological needs (e.g. relatedness, autonomy, competence) are supported. When this occurs, individuals experience "increased psychological health and well-being…but also enhance(d) intrinsic motivation, facilitate(d) internalization of extrinsic motivation, support(ed) the development of autonomous causality orientations, and strengthen(ed) intrinsic relative to extrinsic aspirations" (Ryan & Deci, 2015, p. 490-491). The BPNT is particularly suited as a lens to inspect the included research regarding school administrator support of teachers because of connections to work motivation, job satisfaction and retention (Ford et al., 2018). In addition, using the BPNT as a "lens" allows the researchers to: (a) inspect recent literature about the degree of competence school administrators must have to provide adequate support to teachers (connecting to the first research question), and (b) determine the degree that relatedness and autonomy relate to an administrator's ability to retain effective teachers (connecting to the second research question).

Method

The use of a systematic review of literature for this investigation of school administrator support of teachers ensures that rigorous procedures are used for selection of included research and, in the case of this study, an assessment of the quality of all included articles is performed. Inclusion/exclusion criteria were defined after eligibility definitions were developed, and strict screening procedures were employed to ensure that all literature included in the review contributed to a broad, yet comprehensive understanding of the main topic and answered, to some degree, one or both of the research questions. The procedures used to select the included literature generally follow the guidelines provided in the "Roadmap for Systematic Reviews & Meta-Analyses" (Pai, et al., 2004, p. 88).

Inclusion/Exclusion Criteria

To ensure that the research material included in this study focused on the research questions and were substantive in nature, the researchers used strict inclusion/exclusion criteria. Studies that focused on public, private and charter schools/school districts were included, as well as those focused on kindergarten through 12th grades, including elementary and secondary (middle and

high) schools. Also included were studies which described schools with teachers who served in regular, self-contained classrooms, classrooms serving students from specialized populations (e.g. special education, English language learning) and content specific classrooms (e.g. mathematics, music, social science). Administrators included in this study were principals, deans, assistant principals, and other persons serving in full- and part-time administrative roles who work in urban, suburban and rural geographic areas, serving students from diverse racial, ethnic and socioeconomic neighborhoods. There was no restriction on articles which included teachers and administrators with regard to gender, race, ethnicity, age, socioeconomic status, or sexual orientation. Included literature were journal articles, reviews of literature and reports of international schools (OECD, 2014), gleaning data from surveys, district/state/national databases, observations and interviews.

The process of sifting through a wide variety of source material was recursive in nature, evolving over time until a final, well-defined group of 31 articles remained. At the onset, the following computerized reference databases were used - Education Resources Information Clearinghouse (ERIC); Psych INFO; JSTOR; The Scholarly Journal Archive Academic Search; and Education Full Text. The researchers searched these databases for all peer-reviewed publications published between 2000 to 2019 using the following search criteria (asterisks serving as wildcard characters where noted): (a) administrat* support (AND) teacher*, (b) principal support (AND) teacher*, (c) teacher support (exact phrase), (d) teacher retention (exact phrase), (e) early-career teacher* (exact phrase), and (f) novice teacher* (exact phrase). The result of these searches provided 108 unique listings.

Nineteen articles were added from an inspection of the reference sections of these articles whose titles contained references to either "administration", "principal" and/or "retention". An additional 31 articles, published since the year 2000, were added based on the lead researcher's experience in the field, from well-known reports (e.g. NCES, NBER, NCMST), that met the inclusion criteria, including grey literature such as working papers, monographs and symposium documents. It was important to include this grey literature as there are a number of research consortiums and policy organizations (e.g. Learning Policy Institute) which publish substantive reports that are focused on teacher retention. Also, reports published by the National Center for Educational Statistics (NCES) provided the researchers with statistical reports based on survey results from a nationally representative sample of school teachers and administrators. To ensure international considerations were included, a comprehensive study published by the Organization for Economic Co-operation and Development (OECD) (2014), was included. As a result, the number of included articles to be considered grew to 158 articles. At this point, annotated bibliographies were created for each article, which provided the researchers a way of evaluating the relevancy of the articles.

An inspection of these annotated bibliographies resulted in the removal of 75 articles which, under inspection, did not specifically reference support provided to teachers by school principals or other administrators. Finally, 52 more articles were removed as they were reviews of literature, dissertations, editor columns, position papers, case studies, magazine/newspaper articles, and fictitious case studies, resulting in the final group of 31 articles. Removal of these articles was justified based on the understanding that they either: (a) did not represent empirical research (e.g. reviews of literature, fictitious case studies), (b) were not peer-reviewed by persons outside their organizations (e.g. dissertations), or (c) included bias and/or misrepresentation. Inclusion/exclusion of all material for this study was accomplished in a collaborative, in-person format where each researcher critically examined the other's expressed

rationale, and those articles which were not mutually agreed upon were eliminated. A visual representation of the entire search process is included in Figure 1.

Figure 1

Literature Search Flowchart
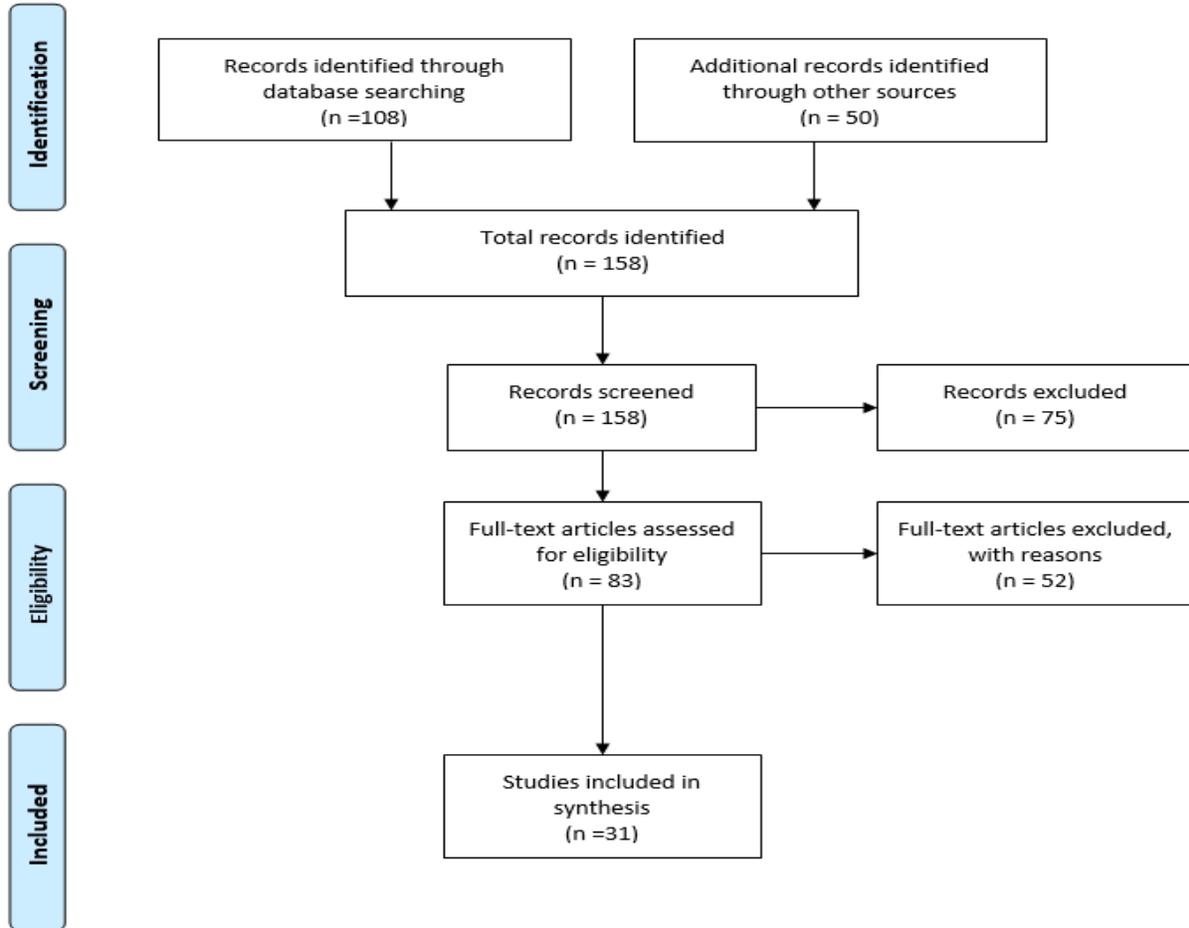
Using information gathered from each of the articles in the final list, the researchers created an Author Inclusion Table (AIT), which provides the following information for each article in tabular format: (a) author(s), (b) year of publication, (c) publication type (i.e. journal article, research organization report, book, government report), (d) research design (i.e. survey, interview, observation, database analysis, narrative), (e) research method (i.e. quantitative, qualitative, mixed method), (f) sample size, (g) setting (i.e. elementary, middle school/junior high, high school), (h) school type (i.e. public, private, parochial, charter), and (i) study purpose as defined by the author(s). Author Inclusion Table (AIT) is provided in Table 1.

Table 1

Author Inclusion Table (AIT)

Author(s) (year of publication)	T	Subject	M	R	P(D)	ST	Y	Purpose
Boyd et al. (2011)	J	Administration	Qn	S	4,360	E, MS, HS	Pu	Administration and Retention
Carver-Thomas et. al (2017)	RR	Turnover	Qn	A	8,200	E, MS, HS	Pu, Pr	Reducing Turnover
Corbell et al. (2010)	J	Induction	Qn	S	439	E, MS, HS	Pu	Early Career Retention
Curtis (2012)	J	Retention	Qn	S	5,000	MS, HS	NA	Retaining Math Teachers
Dee & Wyckoff (2013)	RR	Evaluations	Qn	A	2.630	E, MS, HS	Pu, Pr	Compensation/Retention
Dizon-Ross (2018)	RR	Accountability	Qn	A	50,616	NA	NA	High-performing Teacher Attrition
Djonko-Moore (2016)	J	Attrition	Qn	A	730	E, MS, HS	Pu	Attrition and Demographics
Djonko-Moore (2012)	J	School environment	Qn	A,S	34,870	E, MS, HS	Pu	Teacher Dissatisfaction
Donaldson (2013)	J	Teacher Effectiveness	Ql	I	30	E, MS, HS	Pu, Ch	Effects of Principals' Decisions
Ford et al. (2018)	J	Job Satisfaction	Qn	A	1,850 Tch./122 Prn.	Lower Secondary	NA	Effects of Evaluations
Gates et al. (2019)	RR	Managerial Actions	X	A,I,S	6 districts	NA	NA	Different Approaches to Management
Griffith (2004)	J	Principal Leadership	Qn	S	3,291	E	NA	Effects of Principal Leadership
Grissom (2011)	J	Retention	Qn	A	30,690	E, MS	Pu	Retention in Disadvantaged Schools
Grissom & Loeb (2009)	RR	Managerial Skills	Qn	S	13,942 Tch./899 Prn.	E, MS, HS	Pu	Principal Effectiveness
Grissom (2019)	J	Retention	Qn	A	287,261	E, MS, HS	Pu	Principals' Retention Strategies
Hanselman et al. (2016)	J	Social Resource	Qn	S	555 Yr.1/517 Yr.2	E	Pu	Measure Leadership/Community
Ingersoll (2003)	RR	Turnover	Qn	S	55,000	E, MS, HS	Pu, Pr	Reasons for Turnover
Jacob (2013)	RR	Urban Admin.	Qn	A	24,010	E, MS, HS	Pu	Dismissal Decisions
Johnson & Birkeland (2003)	J	Retention	Ql	I	47/50	E, MS, HS	Pu, Pr, Ch	Why Teachers Leave
Ladd (2011)	J	Perceptions	Qn	A,S	42,871	E, MS, HS	Pu, Pr, Ch	Perceptions and Attrition
Lochmiller (2016)	J	Feedback	Ql	I	50	HS	Pu	Explore Administrators' Leadership
Mawhinney (2008)	J	Interactions	Ql	O, I	16 (312 hours)	E, MS	NA	Dealing With Stress
OECD* (2014)	G	International Overview	Qn	S	3,150	E, MS, HS	Pu, Pr, Ch	Principal and Teacher Dev.
Painter (2000)	J	Teacher Dismissal	Ql	S	70	E, MS	Pu	Barriers to Evaluation
Podolsky, et. al. (2016)	RR	Teacher Shortage	Qn	A	Various	E, MS, HS	Pu, Ch	Why Teachers Enter, Stay, Leave
Redding & Henry (2018)	J	Monthly Turnover	Qn	A	13,665	E, MS, HS	Pu, Pr	Novice Teacher Retention
Robinson (2017)	J	Music Teacher Eval	X	S/I	7	E, MS, HS	Pu	Policy Review
Ronfeldt & McQueen (2017)	J	Induction	Qn	A	13,000	E, MS, HS	Pu, Pr, Ch	Induction and Retention
Schaefer (2013)	J	Attrition	Ql	N	1	E, MS, HS	NA	Reflexive Analysis
Smith & Ingersoll (2004)	J	Induction Programs	Qn	A	3,225	E, MS, HS	Pu, Pr	Induction Effectiveness
Tickle, et. al. (2011)	J	Principal Support	Qn	A	34,810	E, MS, HS	Pu	Administration Support

Key: T = publication type (J = journal article, RR = research organization report, B = book, G = government report); R = research design (S = survey, I = interview, O = Observation, A = Database Analysis, N=Narrative); M = research method (Qn = quantitative; Ql = qualitative, X = Mixed Method); D = Duration; P = sample size; ST = Setting (E = elementary, MS = middle school or junior high, HS = high school); Y = school type (Pu = Public, Pr = Private, Pa = parochial, Ch = charter, NA = not applicable); *OECD = Organization for Economic Co-operation and Development

In all, there were 24 quantitative, five qualitative, and two mixed methods studies included in this review. The majority of the included articles included all school levels - elementary, middle and high school (68%), and although private and charter schools were included, most of the included articles were analyses of data gathered in public schools (74%). There were fewer included studies based on interviews (16%) and observations (3%), with the majority as survey analyses, many from large-scale datasets (84%).

The annotated bibliographies of articles included in this review included, among other items, included a "description of results" and "direct quote(s) regarding effect(s) of administration". Using text from each article associated to these two elements, the researchers collaboratively engaged in an open coding procedure, resulting in codes of no more than six words for each article. These codes, a qualitative representation of each article, were then used as elements in an axial coding process, corroborated by both researchers, resulting in four, organically emergent themes: (a) principal identity, (b) management practice, (c) support practice, and (d) teacher response.

To simplify even further, the researchers combined two of these themes - management practice and support practice - under a general heading defined as "principal practice". Using a constant comparative analysis, the researchers associated each of the included articles to each of the themes, resulting in a conceptual framework for the study. Figure 2 provides the conceptual framework which emerged from this collaborative coding process. This graphic representation shows how principal identity influences principal practice, which in turn has an effect on teachers who serve in their schools.

Figure 2

Conceptual Framework
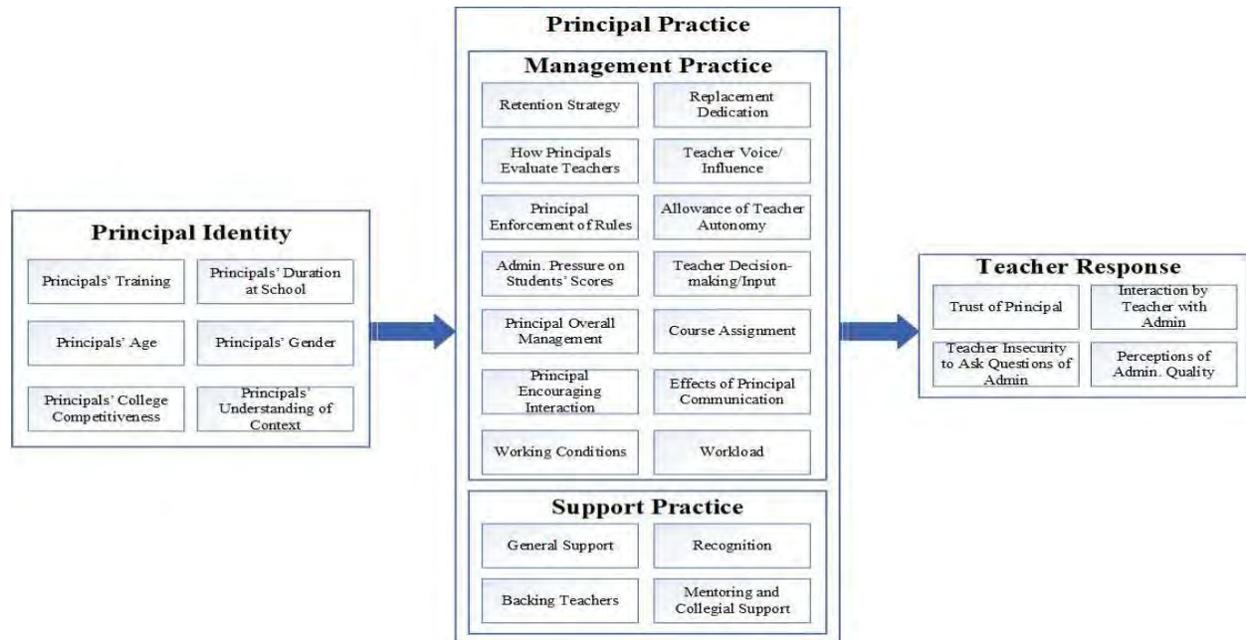
Note. Conceptual framework was created using a constant comparative analysis conducted collaboratively by the authors. Each of the included articles was associated to one of more of the included categories. This graphic representation shows how principal identity influences principal practice, which in turn has an effect on teachers who serve in their schools

Assessment of Quality of Included Literature

In order to assess the quality of the literature included, separate criteria for qualitative and quantitative studies were needed.   In searching for a manner to evaluate the qualitative studies used in this review, the researchers came upon a study by Dixon, Fitzpatrick & Roberts (2001), which stated that "it is necessary to (weight) the (qualitative) studies…to contribute to a synthesis of evidence." (p. 130). The Critical Appraisal Skills Programme (CASP, 2018), developed by the Oxford Centre, establishes specific criteria to assess the quality of qualitative studies. The CASP criteria evaluates specific aspects of qualitative studies, evidenced by: (a) a clear statement of the aims of the research, (b) a justification of the study's recruitment methods, (c) a justification of the manner in which data was collected, (d) an examination of the researcher's role, (e) a consideration of ethical issues inherent in the particular study, (f) the sufficiency of the data analysis, (g) the positionality of the researcher in the study, and (h) an examination of the validity, credibility and generalizability of the study.

An assessment of the CASP criteria was separately performed on each article in this study by the two researchers, indicating either "Yes (Y)," "No (N)," "Can't Tell (CT)," or "Not Applicable (NA)" for each of the criterion. Afterwards, all discrepancies between the two researchers' assessments were investigated, and resolved collaboratively. The Critical Appraisal

Skills Programme (CASP) is provided in Appendix A. Although the selection of the articles included in the study had been concluded prior to this assessment and results of evaluating these articles showed a general adherence to best practices, the analysis also revealed some areas of weakness. For example, an analysis of the "justification of the manner in which data was collected" showed a preponderance of self-reported data.

In order to assess the quality of the quantitative literature, the authors created a rubric of seven criteria based on qualities outlined in "Characteristics of Quantitative Research" in *An Introduction to Educational Research* (Lochmiller & Lester, 2017, p. 118-120). This rubric is provided in Appendix B. Whereas none of the reviewed studies included interventions (which would have allowed for specific measures, such as effect size), evaluating the degree that each of these studies specifically addressed objectivity, generalizability, positionality and error serves to generally describe the quality of each of the included quantitative studies.

In the assessment process, the quantitative and qualitative literature were evaluated independently by the authors. Both quantitative and qualitative sources were evaluated, resulting in 79% adherence to criteria. Following independent evaluations, it became apparent that one question in the quantitative evaluation was inherently "Not Applicable" for 20 of the 31 articles that analyzed data gathered from an outside source (e.g. SASS; TFS; state, city or local educational agency data). This question asked if the researcher(s) imposed conditions to increase the objectivity of their study, including taking measures to ensure the data was collected accurately. Although some studies analyzed datasets which had been collected by an outside source, the researchers were not involved with data collection. Other than this question, all responses were evaluated by both authors and compared, resulting in an 89% agreement. Each conflicting response was subsequently reviewed and resolved collaboratively. Results of this collaborative assessment are provided in Table 2.

Table 2

Assessment of Quality of Included Literature

Study/Evaluation Question	Research Method	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Boyd et al. (2011)	Quantitative	Y	N	Y	Y	N	Y	Y			
Carver-Thomas, et al. (2017)	Quantitative	Y	Y	Y	Y	NA	NA	Y			
Corbell et al. (2010)	Quantitative	Y	Y	Y	Y	Y	NA	Y			
Curtis (2012)	Quantitative	Y	N	Y	Y	Y	NA	N			
Dee & Wyckoff (2013)	Quantitative	Y	Y	Y	Y	NA	Y	NA			
Dizon-Ross (2018)	Quantitative	Y	Y	Y	Y	N	Y	Y			
Djonko-Moore (2012)	Qualitative	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Djonko-Moore (2015)	Quantitative	Y	N	Y	Y	NA	NA	Y			
Donaldson (2013)	Quantitative	Y	Y	Y	Y	Y	NA	Y			
Ford et al. (2018)	Quantitative	Y	N	Y	Y	Y	NA	Y			
Gates (2019)	Quantitative	CT	Y	Y	Y	Y	Y	Y			
Griffith (2004)	Quantitative	CT	Y	Y	Y	N	NA	N			
Grissom (2011)	Quantitative	CT	Y	Y	Y	Y	NA	Y			
Grissom (2011)	Quantitative	Y	Y	Y	Y	NA	NA	Y			
Grissom (2019)	Quantitative	Y	Y	Y	Y	Y	NA	NA			
Hanselman (2016)	Quantitative	Y	Y	Y	Y	Y	NA	Y			
Ingersoll (2003)	Quantitative	Y	N	Y	Y	NA	NA	N			
Jacob (2013)	Quantitative	Y	N	Y	Y	NA	NA	Y			

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Study	Type	1	2	3	4	5	6	7	8	9	10
Johnson & Birkeland (2003)	Qualitative	Y	Y	N	Y	Y	N	CT	Y	Y	Y
Ladd (2011)	Quantitative	Y	Y	Y	Y	NA	NA	Y			
Lochmiller (2016)	Qualitative	Y	Y	Y	Y	Y	N	CT	Y	Y	Y
Mawhinney (2008)	Qualitative	Y	Y	Y	N	Y	N	Y	N	Y	Y
OECD (2014)	Quantitative	Y	N	Y	Y	NA	NA	NA			
Painter (2000)	Qualitative	N	Y	N	Y	CT	N	CT	CT	Y	Y
Podolsky et al. (2016)	Quantitative	Y	N	Y	Y	NA	NA	N			
Redding & Henry (2018)	Quantitative	Y	Y	Y	Y	NA	NA	Y			
Robinson (2017)	Qualitative	Y	CT	CT	N	N	N	N	N	N	Y
Ronfeldt & McQueen (2017)	Quantitative	Y	Y	Y	Y	NA	NA	Y			
Schaefer (2013)	Qualitative	Y	Y	Y	NA	Y	NA	N	N	N	N
Smith & Ingersoll (2004)	Quantitative	Y	Y	Y	Y	NA	NA	NA			
Tickle (2011)	Quantitative	Y	Y	Y	Y	NA	NA	NA			

Key: Y=Yes, N=No, CT=Can't Tell, NA=Not Applicable. See Appendices for question descriptions.

Results

Based on an evaluation performed by the researchers using the Critical Appraisal Skills Programme (CASP, 2018) and the Characteristics of Quantitative Research (Lochmiller & Lester, 2017), the studies included in this review adhered to 89% of established standards for acceptable research. As a result of a systematic analysis of the articles included in this study, four distinct but interrelated themes emerged: (a) principal identity, (b) management practice, (c) support practice, and (d) teacher response. Articles related to the principal identity theme (four articles) include those which relate to intrinsic factors of the school administrator (e.g. demographic, years at the school site, type/levels of prior training). Literature contained within the management theme (19 articles) relate to tasks that school administrators traditionally employ at their schools (e.g. evaluation, hiring, course assignment, enforcement of rules). Support practice articles theme (14 articles) include research which focused on specific tasks that school administrators employed to increase the effectiveness of the teachers at their schools (e.g. recognition, mentoring, support with challenging parents). Finally, articles grouped in the teacher response category theme (seven articles) include literature describing the manner in which teachers responded to administrative efforts at their sites (e.g. perceptions of administrator effectiveness, increased communication/collaboration, feelings of trust).

Principal identity

A number of studies included in this review provided evidence that factors related to the identity of school principals affected the degree to which these professionals could support their teachers. Administrator identity, for the purposes of this study, refers to characteristics which purportedly affect principal interactions with their teachers, including those which are: (a) inherent in nature (age and gender), (b) a direct result of academic preparation prior to professional practice (principal's college competitiveness and preparation in specific subject areas), and (c) directly related to the principal's current professional work (number of years served at their sites, previously acquired professional development, inherent structures in the school/district that inhibit effective service).

Understanding contextual factors (e.g. school level, subjects taught) that affect the manner that school administrators support their teachers relates to the identity of principals (i.e. prior teaching experiences at the same school level and prior teaching in the same subject areas). To better understand these connections, Lochmiller (2016) investigated instructional feedback provided to a select group of math and science teachers by their principals. The study was performed in five, comprehensive high schools in the Western United States and included 12 school administrators and 39 classroom teachers. The participants were interviewed "to illuminate the administrator's understanding of the content area they supervised, their understanding of the subculture within which that understanding was situated, and the teachers' perceptions of the feedback they received" (p. 88). The author posited that school administrators are presumed to be experts in the curricular, instructional and assessment aspects for their schools (p. 81).

Results of the study revealed that teachers felt that administrators who had prior experiences teaching in the same subjects at the same level (i.e. math and/or science in high school) "tended to offer slightly different (instructional feedback) from those who were not previously teachers in those subjects (and) administrators with (similar subject) experience(s) often reinforced their own views about instruction" (p. 97). Lochmiller's study connects to the theoretical frame for this study – the Basic Psychological Needs Theory (BPNT), which asserts that administrators and teachers experience increases in personal motivation when they establish a sense of "relatedness" to each other (e.g. same subject area) (Ryan and Deci, 2002).

More recently, Robinson (2017) investigated music teachers' perspectives of principal support in high-stakes (i.e. value-added measure included) schools. The ability for principals in these schools to not only understand the contextual connections related to a specific subject matter (i.e. music), but also to recognize the impacts of evaluation on teacher morale in high-stakes schools where teacher promotion/pay is more directly connected to evaluation, relates to perceptions of principal support of these teachers.

Management Practices

Studies included in this review of literature provided evidence that factors related to general management practices adopted by school principals affected the degree that these professionals support their teachers. These practices related to the ways that principals: (a) evaluated and focused on retention and/or replacement of teachers, (b) encouraged autonomy, agency, interaction and decision-making by their teachers, (c) focused on student achievement (i.e. standardized test scores) and attended to rules/discipline at their schools, (d) communicated with their teachers and provided an environment of teacher-teacher communication, and (e) considered and adopted policies regarding workload and working conditions of their teachers.

Management practices employed by school principals vary greatly, depending on their personal/professional dispositions, the knowledge and skills they acquired in principal preparation and other training, past experiences, support available to them and the particular circumstances that they are presented with at their sites. To investigate the degree that a "comprehensive principal pipeline would be more effective than business-as-usual approaches to the preparation and management of school leaders" (p. xiv), Gates, Baird, Master & Chavez-Herrerias (2019) evaluated student achievement data to compare large, urban school districts which substantively supported the management practices of school principals versus those which had no specific program in place. Results of the study showed that, relative to districts which did not have a specific program in place, districts which dedicated support to principals (costing less than 0.5

percent of the district budget) showed significant increases in student achievement and retention of principals at these sites. Although this study highlights the connections between administrative practice/retention and student achievement, a key link between the two are the teachers who relationships with both parties. Regardless of the preparation and district funding/support of school leaders, the majority of the literature included in this review reveal the degree that principal management practices affect the degree that school administrators are able to support their teachers.

Evaluation, Retention and Replacement of Teachers. A number of studies in this review explored the connections between how teachers were evaluated and their feelings about retention. Following this research line, a recent study by Ford et al. (2018) performed a secondary analysis of Teaching and Learning International Survey (TALIS) data gathered by the Organization for Economic Co-operation and Development (OECD) in 2013. Investigating the relationship between teacher evaluation experiences and overall job satisfaction among teachers internationally, data analysis revealed that teachers who used feedback from their evaluators to make changes in their teaching rated higher in job satisfaction than those who did not make these changes. That said, the results also showed that teacher satisfaction was higher in schools where the primary evaluator was someone other than the school principal.

In a more recent, localized study, Grissom (2019) analyzed longitudinal administrative data gathered by the State of Tennessee between the years 2011 and 2017 (corresponding to the first six years of the implementation of a new teacher evaluation system) to investigate the effect of strategic retention strategies employed by principals. The study found that the turnover rate of teachers who received observation scores characterized as "very low" rated roughly 23 percentage points higher than that of teachers with the top observation scores (p. 532). With regard to how evaluations of administrators are related to their retention practices, Grissom found that administrators who received higher ratings on their own evaluation rubric were more likely to retain teachers with higher observation scores, and less likely to retain teachers with very lower observation scores (p. 535).

Teacher Autonomy, Agency, Interaction and Decision-Making. A substantive portion of research articles included in this study focused on the importance for school principals to support teachers by giving them autonomy, agency, opportunities for peer collaboration and opportunities to express their professional opinions. Boyd et al. (2011) surveyed first-year teachers serving in New York City schools in 2005, and again in 2006. Combining survey results with district administrator file data, the research team found that well over 40% of the study participants stated that dissatisfaction with the administration was the most important factor in deciding to transfer or leave teaching (p. 327). More specifically, the teachers in the study cited that having autonomy in their classrooms as a reason for remaining at their schools.

The needs of teachers to provide input in how their schools should operate was cited numerous times in the included literature. Results in a study by Ingersoll (2003), reveal that "the most common reasons (of those who depart because of job dissatisfaction is) little faculty input into school decision-making" (p. 9). Although they may exist, there were no studies in this review that explored specific interventions by principals that provide increased decision-making opportunities to their teachers.

Finally, in a related study which focuses on teacher identity for music teachers (Robinson, 2017), the author appealed for greater autonomy, relatedness, and competence in the teaching force (p. 8). Substantive research included in this study provides evidence for increased efforts by school administrators to support teacher autonomy, agency, interaction and decision-making.

Robinson's study connects to the theoretical frame for this study – the Basic Psychological Needs Theory (BPNT), which asserts that teachers experience increases in personal motivation when their administrator endorses teacher autonomy at their sites (Ryan and Deci, 2002).

Student Achievement and School Rule/Discipline Related. A few research articles included in this review of literature focused on the manner in which school principals support their teachers with regard to increasing student achievement and the enforcement of school rules for students. Dizon-Ross (2018) found that principals are motivated, due to accountability pressures, to actively support measures that are attractive to teachers (e.g. teacher development, increased opportunities to collaborate, increased autonomy) (p. 22). In addition, according to the author, the data support the notion that "induced by accountability pressure, principals at lower-graded schools put more effort into making the schools better places for teachers to work, or into attracting and retaining high-quality teachers" (p. 3).

In contrast, Ladd (2011) evaluated teachers' perceptions of working conditions in economically disadvantaged schools, including how the school principal enforced school rules, and related these factors to teacher retention. Working conditions related to establishing and implementing policies associated to student discipline were measured. The researcher used data available from the State of North Carolina, gathered from school administrators and teachers alike. Data from elementary, middle and high school revealed that:

> the elements in the (leadership) factor suggest that North Carolina teachers have a
> broad view of leadership that starts with the general support of
> the school leadership for teachers, especially with respect to their effort to maintain
> discipline in the classroom. (p. 241)

Communications with/between Teachers. The degree that effective communication between school administrators and their teachers is present was studied by researchers in this review. Using NCES data from the 1999-2000 SASS and TFS questionnaires, Smith & Ingersoll (2004) found that the degree that beginning teachers reported having regular, supportive communication with their principal varied little across school types - about 80% in public and charter schools and 85% in private schools. Regardless of setting, substantive communication with school principals, other administrators, or department chairs was linked with reducing the likelihood of both teacher moving to another school and departing from the profession (p. 703).

With regard to mentoring and collegial support, the OECD TALIS study (2014) which included participants from the United States and a host of other countries, the authors state that, "by encouraging teachers to learn from one another, principals help teachers remain current in their practice and may also help to develop more collaborative practices between teachers in their school" (p. 59).

Workload and Working Condition Related. Teachers evaluate the working conditions at their school sites to understand the degree that they are in a conducive environment to work effectively. Articles in our literature review focus on the ways that school principals affect working conditions at their sites, including how they enhance/affect the environment of the school and make resources available to their teachers. In a study described earlier that focused on teacher control in the classroom, Djonko-Moore (2012) also researched the role of school environment, in general, as it relates to teacher satisfaction in U.S. schools. In this article, Djonko-Moore defines a positive school environment as one which includes a supportive administration where the general perception is that the school is well-run (p. 10).

Grissom (2011) hypothesized that teacher satisfaction and turnover are explained by school working conditions and that disadvantaged schools with the greatest staffing challenges are

connected to the ability of principals to retain teachers at those sites (p. 2552). The author stated that "teachers working in schools with larger numbers of nonwhite and low-income students have significantly lower levels of job satisfaction and significantly higher propensities to leave the school" (p. 2576).

Support Practices

A number of studies included in this review of literature supported the assertion that factors related to principal support practices affected the degree to which these professionals could support their teachers. These included recognizing teacher efforts and expertise and supporting teachers with difficult parents.

General Support. A number of studies included in this review of literature focused on the ways that school administrators supported their teachers in general. In their localized study involving teachers in New York City schools between 2005 and 2006, the research team of Boyd et al. (2011) found that over 40% of participants in the study identified dissatisfaction with the administration as the most important factor related to their feelings about leaving the profession (p. 326-327). Djonko-Moore (2016) took a separate look at the data from the same 2007-2008 NCES SASS survey, as well as the 2009 Teacher Follow-Up Survey (TFS), investigating the mobility and attrition of teachers serving in high-poverty, racially segregated (HPRS) schools across the U.S. The author found that, "teachers' perceptions of their students' behavior and teachers' perceptions of community problems have the greatest influence on teacher mobility while urbanicity and student–teacher ratio were found to have the greatest impact on teacher attrition" (p. 1080). To ameliorate these conditions, Djonko-Moore suggests that if principals and administrators want to reduce teacher mobility in their schools, they should consider teachers' beliefs and perceptions about the student population when making hiring decisions (p. 1080).

Using data gathered in the Teacher Questionnaire from the 2003-2004 NCES SASS survey as a basis for analysis, Tickle et al. (2011) found that "administrative support mediates the effect of teaching experience, student behavior, and teachers' satisfaction with their salary on both teachers' job satisfaction and intent to stay in teaching" (p. 346).

Recognition and Support with Parents. The ability for principals to recognize the efforts of teachers at their site was of interest to a number of researchers whose contributions are included in this review of literature. Painter's (2000) qualitative investigation of elementary and middle school principals in Oregon provides evidence that even with teachers with performance issues, more frequent collaboration with their principals allowed for them to obtain satisfactory improvement. Additionally, the author found that principals perceived outside observers to overestimate the number of low-performing teachers under their supervision during their administrative tenure (p. 258). In a study with multiple perspectives, Johnson & Birkeland (2003) used a qualitative approach to validate that administrative support of teachers, as they interact with parents, is essential. Additionally, aside from the need for administrators to involve parents more at their sites, teachers in the study revealed the importance of school administrators who "backed" their teachers (with difficult parents).

Teacher Response

As principal identities affect their general management and specific support practices at their school sites, teachers respond to their administrators in a variety of ways. Certain studies included

in this review of literature focused on these teacher responses, including the degree that teachers trusted and otherwise interacted with their principals (including their ability to approach them with questions) and perceptions their principals' professional merit based on their own experiences and those related to them by their colleagues.

Trust of and Teacher Interaction with Principal. Using results of the Perceptions of Success Inventory for Beginning Teachers (PSI-BT), Corbell et al. (2010) found that "new teachers who rarely interact with administrators report diminished perceptions of success" (p. 76). Results of this study indicate that adequate supportive practices are necessary for teachers to be confident in their abilities and success in the classroom, and when these effective practices are not implemented, teachers' feelings of inadequacy are exacerbated.

Due to the varying levels of trust by teaches of their principals, relationships among teachers can serve to be the primary connections that provide the teacher with emotional and professional support. In one, site-specific study (Mawhinney, 2008), researchers conducted extensive interviews and observations at a kindergarten-8ᵗʰ grade school in a large, urban school district between 2005 and 2007. Results of the study showed that at this particular site, there were numerous accounts by teachers not supported by administration, and as a result, teachers experienced a lack of trust with district administration (p. 199). As a coping strategy, the teachers in the school communicated informally among themselves, which in the opinions of the authors, provided a forum to express their concerns and anxieties (p. 207). Additionally, it was found that these teachers relied on laughing about themselves, practical jokes, and sharing of amusing stories about students to relieve stress and increase feelings of professional support.

Perceptions by Teachers of Quality of Administrator. Teacher perceptions of the quality of the administrative management practices affects their personal feelings about retention. Boyd et al. (2011) investigated results of a survey of first- and second-year teachers in New York City to conclude that the perceived quality of administration is influenced by the amount of feedback principals are able to provide. The authors revealed that teachers have different preferences for professional autonomy, with different expectations for the optimum number of classroom visits and amount of instructional feedback by administrators (p. 329).

In an experimental evaluation of a systematic intervention for upper elementary science teachers in 80 elementary schools in Los Angeles (Hanselman et al., 2016), researchers investigated the perceptions that teachers had about their site administrators. The study found that teachers' perceptions of the degree that administrators are retained at their schools factors into their assessment of principal quality. The researchers found that "principal turnover causes immediate instability in teachers' perception of principal leadership" (p. 29). Hanselman, et al.'s study connects to the theoretical frame for this study – the Basic Psychological Needs Theory (BPNT), which asserts that teachers experience increases in personal motivation when they feel that administrators are perceived to be competent - indicated, in this case, by retention at their schools (Ryan and Deci, 2002). Lastly, Tickle et al. (2011) analyzed of the data gathered from the administration of the 2003-2004 SASS survey to conclude that "administrative support mediates the effect of teaching experience, administrative support, and teachers' satisfaction with their salary on teachers' job satisfaction and intent to stay in teaching" (p. 346).

Conclusions

Included in this systematic review of literature are research articles published between 2000 and 2019 that reveal, to some degree, ways that school administrators support their teachers, as well

the degree that teachers perceive these administrative efforts. These articles were evaluated, in a systematic way, to determine the quality of methods and analyses conducted through the use of carefully developed rubrics. The degree that administrators can support the teachers serving in their schools is determined by a myriad of factors. According to individual studies included herein, there are aspects of an administrator's identity (e.g. age, gender, prior college competitiveness) and structural components (e.g. salary schedule, contractual workload) that are not in administrator control which affect an administrator's ability to support their teachers.

The articles in this review detail strategies that are in the control of school administrators that promise to increase their ability to supportive them. Whereas this is not an exhaustive list, these may include: (a) increasing their understanding of subject matter and instructional practices which they are not familiar with, (b) engagement in professional development related to teacher evaluation and general support, (c) advocating/securing additional funds for needed resources, (d) increasing their effectiveness to have students follow school rules, (e) increasing teacher agency and decision-making, and (f) assisting them with difficult parents.

Implications

With substantiated research results in place, it is recommended that current researchers develop and implement interventions to further understand ways that administrators can provide increased autonomy, agency, interaction and decision-making opportunities to the teachers at their sites. The theoretical frame of this study (BPNT), asserts that teachers and administrators experience increases in personal motivation when specific psychological needs (e.g. relatedness, autonomy, competence) are supported. (Ryan and Deci, 2002). This systematic review of literature provides ample evidence that administrators who engage in professional practices to support their teachers with instructional needs, training, meaningful evaluation, increased agency, student discipline, and communications with parents further ensures that these psychological needs are met. These practices also serve as measures administrators can use to address the second research question for the study, namely "what does recent literature tell us about a school administrator's ability to retain effective teachers?"

Although many articles included in this systematic review of literature focus on practices that school administrators can employ to increase support for teachers at their sites, there is also evidence that increased job responsibilities related to increased accountability of teachers and students competes for time that these professionals could dedicate to theses support efforts. Principal preparation programs are positioned to adopt curriculum and fieldwork experiences that more specifically address these challenges for aspiring school administrators. For school administrators already serving in schools, it is incumbent on their central offices to increase support and training for these professionals to incorporate additional teacher support measures at their schools. Increased school administrator effectiveness, as evidenced by literature in this review, has a direct impact on teacher effectiveness/retention. Policy makers at the local, state and federal levels are strongly encouraged to increase funding to meet the needs of school administrators to increase support for, and retention of, their teachers.

Limitations and Recommendations for Future Research

There were a number of limitations to this systematic review of literature, including that the study was conducted from the perspective of two university affiliated persons, not practitioners directly

involved in school administration or teaching. Also, databases used to search for relevant articles are limited in scope based on subscriptions and contributing parties. Sample sizes, data collection methods, and other methodological parameters were not specified in advance when choosing the literature used in this study. Delimitations to the research included the omission by the researchers of specific types of literature, including reports, news articles, and magazines. Additionally, the study included articles previously accumulated by the lead researcher, gathered from prior research.

Recommendations for future research involving the support of teachers by their site administrators include the increased use of instructional technology, support during/after school closings due to world events (e.g. COVID-19 pandemic) and the relative effectiveness of multiple administrators at a single site, versus a single administrator. In addition, it would be beneficial for future research to investigate the support of teachers by administrators using other theoretical perspectives (e.g. critical race, self-efficacy).

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Appendix A

Critical Appraisal Skills Programme (CASP) Questions

1. Was there a clear statement of the aims of the research?
   - what was the goal of the research
   - why it was thought important
   - its relevance
2. Is a qualitative methodology appropriate?
   - If the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants
   - Is qualitative research the right methodology for addressing the research goal?
3. Was the research design appropriate to address the aims of the research?
   - if the researcher has justified the research design (e.g. have they discussed how they decided which method to use)
4. Was the recruitment strategy appropriate to the aims of the research?
   - If the researcher has explained how the participants were selected
   - If they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study
   - If there are any discussions around recruitment (e.g. why some people chose not to take part)
5. Was the data collected in a way that addressed the research issue?
   - If the setting for the data collection was justified
   - If it is clear how data were collected (e.g. focus group, semi-structured interview etc.)
   - If the researcher has justified the methods chosen
   - If the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews are conducted, or did they use a topic guide)
   - If methods were modified during the study. If so, has the researcher explained how and why
   - If the form of data is clear (e.g. tape recordings, video material, notes etc.)
   - If the researcher has discussed saturation of data
6. Has the relationship between researcher and participants been adequately considered?
   - If the researcher critically examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location
   - How the researcher responded to events during the study and whether they considered the implications of any changes in the research design
7. Have ethical issues been taken into consideration?
   - If there are sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained
   - If the researcher has discussed issues raised by the study (e.g. issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)
   - If approval has been sought from the ethics committee
8. Was the data analysis sufficiently rigorous?
   - If there is an in-depth description of the analysis process

- o If thematic analysis is used. If so, is it clear how the categories/themes were derived from the data
- o Whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process
- o If sufficient data are presented to support the findings
- o To what extent contradictory data are taken into account
- o Whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation

9. Is there a clear statement of findings?
- If the findings are explicit
- If there is adequate discussion of the evidence both for and against the researcher's arguments
- If the researcher has discussed the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst)
- If the findings are discussed in relation to the original research question

10. How valuable is the research?
- o If the researcher discusses the contribution the study makes to existing knowledge or understanding (e.g. do they consider the findings in relation to current practice or policy, or relevant research-based literature
- o If they identify new areas where research is necessary
- o If the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used

Appendix B

Quantitative Research Evaluate Criteria (derived from Lochmiller & Lester, 2017)

1. Is the research based rooted in positivism?
   o Is there an objective reality to be known?
   o Can this reality be known concretely?
   o Is precise measurement and structured analysis of the data appropriate to lead to a full understanding of reality?
2. Is <u>deductive analysis</u> central to the research?
   o Does the study work from a set of premises (hypotheses) to formulate a broader understanding or conclusion?
   o Does the researcher seek to confirm or disconfirm a hypothesis through analysis of numerical data?
   o Does the researcher think critically about the theories that inform their hypothesis (es)?
3. Does the research rely almost exclusively on numerical data?
4. Does the research use statistics <u>as a tool</u> to make sense of the data, not as an end of itself (i.e. are there conclusions based on the numerical analysis)?
5. Does the research provide the degree that the results are generalizable?
   o Did the researcher(s) describe how the results might apply to a larger population?
   o Did the researchers utilize randomization or random assignment in their participant selection (individuals had an equal chance of being included in the study)?
6. Did the researcher(s) impose conditions to increase objectivity in their study?
   o Did the researcher(s) take measures to ensure that their own bias(es) didn't contaminate the study?
   o Did the researcher(s) take measures to ensure that the data collected accurately reflected the reality of those who were studied?
7. Did the researcher(s) take steps to ensure that error was reduced or eliminated?
   o Did the researcher(s) take steps to ensure that <u>measurement error</u> was minimized or eliminated to the degree possible?
   o Did the researcher(s) take steps to ensure that all data was considered-none overlooked, ignored or interpreted incorrectly.

Appendix C

Definition of Terms

1. teacher turnover - an umbrella term which describes the departure of teachers from the teaching profession, including retirement and pre-retirement

2. teaching attrition - the general phenomenon of teachers leaving the profession

3. teaching retention – a general term that relates to efforts to increase the amount of time teachers remain in the profession

4. support – a general term that describes assistance by administrators for teachers