QUALITY FEEDBACK, TEACHER ENGAGEMENT, AND STUDENT ACHIEVEMENT

February 2015

In the following report, Hanover Research summarizes information regarding effective feedback for teachers and presents several factors that have an impact on teacher engagement. Additionally, Hanover Research reviews the available research literature related to the relationship between measures of teacher engagement and a variety of student outcomes.
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EXECUTIVE SUMMARY AND KEY FINDINGS

INTRODUCTION

In recent decades, a growing level of emphasis has been placed on student achievement outcomes. Historically, student achievement has been linked to a number of factors including school-wide elements, students’ background, educational funding, and teacher quality.1 More recently, experts in the field of education have introduced the importance of teacher engagement in determining teacher quality, student motivation, and even student achievement. This report discusses elements that constitute effective feedback for teachers and a variety of factors that are shown to positively and negatively impact levels of teacher engagement. In addition, Hanover provides a literature review of the available research associated with teacher engagement and its impact on a number of student outcomes.

This report comprises the following sections:

- **Section I: Effective Feedback and Other Determinants of Teacher Engagement** includes an overview of how to measure teacher engagement and provide effective feedback for teachers, as well as a literature review of the available research related to the factors that influence teacher engagement.

- **Section II: Supporting Student Achievement through Teacher Engagement** presents a discussion of the literature related to the relationship between measures of teacher engagement and various student outcomes, and provides approaches to promote teacher engagement levels.

KEY FINDINGS

- **Hanover Research was unable to find any research studies that specifically link the provision of high quality feedback to teacher engagement levels, but the available literature generally supports the significance of feedback in promoting and sustaining engagement.** For example, research suggests that schools can foster teacher engagement through the provision of consistent and positive reinforcement over time. Additional research suggests that effective feedback early in a teacher’s development can have a long-term impact on their use of effective teaching practices throughout the duration of their career.

- **The available literature indicates that the nature and timing of feedback are the most influential elements in determining the impact that feedback will have on teacher performance.** A meta-analysis of studies examining the relationship between performance feedback and teacher behavior found that immediate feedback is most effective at improving teaching performance. In addition, specific, corrective, and/or positive forms of feedback are the most promising approaches to delivering feedback.

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- Research associated with measures of teacher engagement indicates that there are a variety of school-level factors that positively and negatively influence engagement among teachers. Several studies note the importance of available resources and systems of teacher support, while others suggest the importance of effective school leadership. School climate and the teacher-student ratio are also important determinants of teacher commitment and satisfaction levels.

- The majority of existing literature reports a correlation between indicators of teacher engagement and student performance. Research suggests that higher levels of teacher engagement and job satisfaction result in greater student engagement and achievement. In addition, the literature reveals that teachers’ perceptions of efficacy can have a notable impact on their engagement levels; teacher self-efficacy and collective teacher efficacy are both positively associated with student achievement and student motivation.
SECTION I: EFFECTIVE FEEDBACK AND OTHER DETERMINANTS OF TEACHER ENGAGEMENT

This section of the report outlines the elements associated with teacher engagement and presents an overview of research related to the types of feedback that are most effective for teachers. The section further reviews a number of studies that identify additional factors that may have a positive or negative impact on teacher engagement levels.

OVERVIEW OF TEACHER ENGAGEMENT

Teacher engagement is related to teachers’ commitment and investment in student learning and can be manifested through a variety of classroom behaviors, including lesson plan development, the employment of certain teaching strategies, and student evaluations. According to the available research, there are four types of teacher engagement that focus on different aspects of teachers’ professional responsibilities:

- **Engagement in school as a social unit** relates to the idea that the school in which a teacher works is a social community that bridges work life and personal life. This type of engagement is demonstrated among teachers who regard their students and colleagues as friends and family, and who attend extracurricular school events regularly.

- **Engagement with students** is associated with the teacher-student relationship and the way in which teachers interact with their students. Teachers who are engaged with their students “as unique whole individuals” are typically available for students as a supplementary support system and/or instruct their classes in a way that promotes student involvement.

- **Engagement with academic achievement** refers to teachers’ interest in student performance and achievement outcomes. This is apparent in teachers’ curriculum preparation, collaboration with other teachers, quality of instruction, modes of assessment, and feedback to students.

- **Engagement in relevant content areas** relates to teachers’ knowledge and passion regarding the subject(s) they teach. This type of engagement can be expressed through a teacher’s personal interest in the subject-area, adaptation of lessons to appeal to students’ lives, involvement in professional organizations, or the acquisition of advanced degrees.

Typically, new teachers display higher levels of engagement in multiple areas, while over time teacher engagement tends to decline, as demonstrated in Figure 1.1 on the following page. Louis and Smith (1992) postulate that teacher engagement is “almost always affected

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3 Bulleted points adapted from: Ibid., pp. 120-121.
by the presence and absence of various demands on teachers, including the demands teachers place on themselves and the demands of their students, their peers, their principal, and students’ parents." A recent Gallup poll supports this notion, indicating that only 30 percent of U.S. teachers report feeling engaged in their work. This statistic is particularly concerning because a lack of engagement among teachers can lead to a variety of negative outcomes, including higher teacher turnover, greater absenteeism, and decreased school productivity.⁵

**Figure 1.1 K-12 Teacher Engagement Levels over Time**

<table>
<thead>
<tr>
<th>YEARS OF EXPERIENCE</th>
<th>PERCENT ENGAGED</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 months to &lt; 1 year</td>
<td>35.1%</td>
</tr>
<tr>
<td>1 to &lt;3 years</td>
<td>30.9%</td>
</tr>
<tr>
<td>3 to &lt;5 years</td>
<td>27.9%</td>
</tr>
<tr>
<td>5 to &lt;10 years</td>
<td>30.8%</td>
</tr>
<tr>
<td>10+ years</td>
<td>31.8%</td>
</tr>
</tbody>
</table>

Source: Gallup⁶

**FEEDBACK AND TEACHER ENGAGEMENT**

Currently available research indicates that teacher behavior has a substantial impact on student engagement and motivation in the classroom.⁷ To support teachers’ engagement and involvement in their students’ experiences, a review of the literature emphasizes the importance of constructive feedback for teachers as a promising practice to improve classroom instruction and teacher aptitudes.⁸ The Carnegie Foundation for the Advancement of Teaching underlines the usefulness of teacher support and recommends the provision of worthwhile feedback for teachers as an effective means of professional development.⁹

The existing literature base related to feedback for teachers includes a number of studies that focus on the diverse approaches to administering teacher feedback in an attempt to determine what types of feedback have the greatest impact on teacher performance. A 2004 meta-analysis by Scheeler, Ruhl, and McAfee examined 10 studies related to the relationship between performance feedback and teacher behavior in order to determine the characteristics associated with the most effective modes of feedback. In their analysis,

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⁴ Ibid. p. 121.
they organized the qualities of the feedback into three categories: nature of the feedback, timing of the feedback, and provider of the feedback.10 These categories are organized by the various features associated with teacher feedback, and are highlighted in Figure 1.2 and further described below.

**Figure 1.2 Description of Teacher Feedback Classifications**

<table>
<thead>
<tr>
<th>FEEDBACK CLASSIFICATION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nature of the feedback</strong></td>
<td>▪ <strong>Content:</strong> corrective vs. non-corrective, general, positive, specific</td>
</tr>
<tr>
<td>relates to the content that is delivered and the method of delivery</td>
<td>▪ <strong>Method of delivery:</strong> live, audio, video, written, through checklists, reports</td>
</tr>
<tr>
<td><strong>Timing of the feedback</strong></td>
<td>▪ <strong>Frequency:</strong> how often feedback is provided</td>
</tr>
<tr>
<td>is associated with the frequency and timing of the feedback</td>
<td>▪ <strong>Timing:</strong> immediate, delayed</td>
</tr>
<tr>
<td><strong>Provider of the feedback</strong></td>
<td>▪ <strong>Who:</strong> university supervisor, on-site supervisor, peer coach</td>
</tr>
<tr>
<td>focuses on the role of the person who delivers the feedback</td>
<td></td>
</tr>
</tbody>
</table>

Source: Teacher Education and Special Education11

Within the literature, the content of feedback is described according to the purpose or delivery as indicated in Figure 1.2: corrective, non-corrective, general, specific, and positive. Corrective feedback describes the teacher’s error in detail and presents recommendations for how to correct it, while non-corrective feedback simply introduces the teacher’s error. General feedback is typically vague information about a teacher’s performance, whereas specific feedback is more practical and points to certain teaching behaviors. Meanwhile, positive feedback offers praise to teachers when desirable conduct occurs.12

In regards to the nature of feedback, specific, corrective, and/or positive forms of feedback are the most promising approaches according to the available research.13 These three approaches to providing teacher feedback are further supported in a 2013 *Principal Leadership* publication by Tim Westerberg, and a more in-depth description of the qualities associated with these three types of feedback is included in Figure 1.3 on the following page.14 Correspondingly, the Scheeler, Ruhl, and McAfee study further indicates that general, non-corrective, and delayed feedback are ineffectual at improving teacher performance. In addition, their findings determined that effective feedback can lead to the subsequent implementation of desirable teaching behaviors, including: the use of student praise, direct instruction, classroom time management, and responsiveness. Moreover, feedback is shown to be effective at reducing problematic teaching behaviors.15

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11 Ibid.
12 Ibid., p. 6.
13 Ibid., p. 10.
Figure 1.3 Qualities of Effective Forms of Feedback

<table>
<thead>
<tr>
<th>Type of Feedback</th>
<th>Associated Qualities</th>
</tr>
</thead>
</table>
| Focused          | • Centers around a limited number (one to three) of specific aspects or indicators of teacher performance  
|                   | • Connects specific teacher and student evidence from classroom observations to words and phrases in the teacher evaluation instrument |
| Specific         | • Emphasizes how strategies are used, not how many strategies are used  
|                   | • Focusses on evidence, not interpretation  
|                   | • Includes both teacher and student evidence |
| Constructive     | • Is more than telling; it is dialogue and sharing views and perspectives in a professional conversation  
|                   | • Encourages self-assessment, data collection, and reflection on practice  
|                   | • Helps the teacher construct his or her own options for using feedback to move forward  
|                   | • Gives the teacher a sense of where he or she is on the continuum (e.g. from ineffective to accomplished)  
|                   | • Features “bite-sized” action recommendations that give teachers clear direction on how to improve  
|                   | • Promotes focused, deliberate practice  
|                   | • Accommodates tracking progress and recognizing growth |

Source: Principal Leadership

Overall, the final analysis by Scheeler, Ruhl, and McAfee concluded that immediacy is clearly the most worthwhile aspect associated with effective feedback. Their findings resolved that administrators should attempt to provide feedback “as close to the occurrence of teaching behavior as possible.” The authors mention that several studies indicated a concern about feedback causing classroom interruptions that might negatively impact students, but they found that disruptions to instruction do not have any negative or long lasting effects. Despite this, it is recommended that those individuals tasked with providing immediate feedback do so as discreetly as possible, at a point in time that is not as intrusive. Further, research suggests that effective feedback early in a teacher’s development is especially important because teachers may otherwise implement undesirable teaching practices that last long into their career.

Because there was only one well-designed study that questioned the impact of who delivers feedback to teachers, Scheeler, Ruhl, and McAfee state that “no definite statement can be made about the relative effectiveness of peers or traditional supervisors.” Notably, the available research literature regarding the effectiveness of feedback for teachers does validate the following conclusions:

- Feedback is better than no feedback.
- Immediate feedback is better than delayed feedback.

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18 Ibid.
19 Ibid., p. 10.
20 Ibid.
21 Bulleted points taken verbatim from: Ibid., p. 10.
Feedback that is immediate, specific, positive, and corrective holds the most promise for bringing about lasting change in teaching behavior.

**Strength Assessments for Providing Feedback**

In terms of mechanisms to assess individuals’ strengths, Gallup’s Strengthsfinder assessment is commonly recommended as a tool to help identify talents, and can be used to provide feedback for teachers regarding their strengths. However, an expansive, unbiased research base regarding the quality of these types of assessments does not exist. In addition, while there are numerous strength assessments available for free online, their effectiveness has not been validated by research.

Upon review of the available information related to strengths-based assessment tools, it appears that StandOut is an assessment that is somewhat widely used and that can potentially serve as an alternative to Gallup’s Strengthsfinder. Developed by a former Gallup employee, StandOut focuses on identifying individuals’ top talents through a series of question and response combinations and can be customized based on the participant’s position within an organization. After creating an initial version of the assessment in 2009 and analyzing responses, unreliable question/response combinations were removed, responses were changed, and a select number of new question/response combinations were added to be analyzed in future research.

**OTHER FACTORS THAT IMPACT TEACHER ENGAGEMENT**

The majority of available literature on the topic of teacher engagement concerns a variety of factors that may have a positive or negative influence on teacher engagement levels. For example, Hakanen, Bakker, and Schaufeli (2006) applied a Job Demands-Resources Model to determine the relationship between: 1) job demands and teacher burnout and 2) available resources and teacher engagement. They hypothesized that high job demands and an absence of resources would result in burnout and lead to decreased teacher engagement as described in Figure 1.4 on the following page.

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Hakanen, Bakker, and Schaufeli defined job demands as the elements of teaching that involve persistent physical or psychological effort which, for the purpose of the study, included disruptive student behavior, work overload, and a poor school environment. Job resources refer to those factors in the school context that reduce the severity of the aforementioned job demands, help teachers meet professional goals, and provide personal or professional development. In this particular study, the following job resources were identified: job control, access to information, supervisory support, innovative school climate, and social climate.

The overall findings of the study observed that teachers who had access to a number of available job resources were more inclined to be engaged and committed to their work. Inversely, those teachers who experienced a lack of job resources to meet their job demands were more prone to burnout, which decreased their levels of commitment and engagement. Hakanen, Bakker, and Schaufeli suggest that schools provide opportunities for teachers to increase their job resources and ease job demands in order to effectually increase work engagement, reduce levels of burnout, and foster stronger career commitment.

A similar 2008 study published in *Applied Psychology* observed the impact that school context has on teachers’ engagement and exhaustion levels. The analysis found that school-level attributes had a minimal effect on teachers’ exhaustion levels, but teacher engagement varied significantly across schools. The findings determined that principal support was most positively associated with higher levels of teacher engagement, while

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25 Ibid. p. 497.
26 Ibid.
27 Ibid. p. 509.
student misbehavior had the largest impact on teachers’ emotional exhaustion. The authors of the study also concluded that individual differences among teachers may predispose them to either greater engagement or greater exhaustion.\(^{28}\)

Another more specific study conducted by Louis and Smith (1991) sought to determine the effect that school restructuring has on teachers’ work and engagement. The analysis examined several school structures over the course of seven to 10 years and relied on classroom observations and qualitative interviews with students, teachers, and administrators. Based on this information, Louis and Smith made the following conclusions about successful school restructuring initiatives that encourage teacher engagement: \(^{29}\)

- The initiatives or programs accurately aligned with the culture and values of the teachers, students, staff, and administrators.
- The process incorporated respect, opportunities for collaboration, and meaningful feedback.
- Programs existed to help teachers build and sustain positive personal and professional experiences.

Further, a study by Bird et al. (2009) focused on the relationship between principal leadership and teacher trust and engagement. The findings suggest that school principals’ authenticity is positively associated with teacher trust and engagement levels. In other words, principals who employed a more authentic leadership style garnered greater teacher trust and engagement. \(^{30}\)

In addition to studies that focus specifically on teacher engagement, there are a number of studies that examine alternative measures that may be directly or indirectly related to teachers’ engagement levels. For example, a 1992 study published in the *Journal of Experimental Education* examined the association between teachers’ commitment levels and a variety of influential school-level factors. The analysis determined that a teacher’s general and personal efficacy were the two most important


**Determinants of teaching commitment.** Other important factors, including teacher-student ratio, school climate, and gender are summarized below.\(^{31}\)

... greater teaching commitment tended to be expressed by those teachers who were higher in both general and personal efficacy; who taught in schools with fewer students per teacher; and who worked under a principal regarded positively in the areas of instructional leadership, school advocacy, decision making, and relations with students and staff. Teaching commitment also was higher for female teachers.\(^{32}\)

Additional research suggests that teacher commitment may be causally associated with teachers’ level of job satisfaction,\(^{33}\) and there is a selection of literature related to the various factors that may influence teacher job satisfaction. For example, a statistical analyses conducted to determine work-related factors that impact job satisfaction among teachers found that administrative support and leadership, student behavior, and school atmosphere were most associated with teacher satisfaction levels. Notably, it also concluded that compensation is only somewhat correlated with satisfaction among teachers.\(^{34}\)

Another study examined factors that positively or negatively impact teachers’ level of job satisfaction. The study found that teacher-pupil relationships were the most important element in determining teachers’ job satisfaction, while parent-teacher relationships prompted the most concern among those teachers involved in the study. The findings also concluded that teachers in low-achieving schools reported feeling more dissatisfied with their school’s curriculum and with the existing teacher-teacher relationships when compared to teachers in higher achieving schools.\(^{35}\)

Although the previously cited studies comprise only a portion of the available literature related to teacher engagement and other similar outcome measures, it is apparent that there are numerous factors that may positively or negatively influence teachers’ engagement levels. Figure 1.5 on the following page provides a brief overview of the studies presented in this subsection of report and the relevant findings associated with each.

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\(^{32}\) Ibid. p. 323.


# Figure 1.5 Summary of Cited Studies Related to Teacher Engagement

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Study Title</th>
<th>Year</th>
<th>Outcome Measure</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bird, J. et al.</td>
<td>Relationships among Principal Authentic Leadership and Teacher Trust and Engagement Levels</td>
<td>2009</td>
<td>Teacher trust and engagement</td>
<td>• School principals’ authenticity is positively associated with teacher trust and engagement levels.</td>
</tr>
</tbody>
</table>
| Coladarci, T. | Teachers’ Sense of Efficacy and Commitment to Teaching | 1992 | Teacher commitment | • Teachers’ general and personal efficacies are the most important determinants of teaching commitment.  
• Teacher-student ratio, school climate, and gender also have a significant impact on teacher commitment levels. |
| Hakanen J.J., A.B. Bakker, W.B. Schaufeli | Burnout and Work Engagement Among Teachers | 2006 | Teacher burnout and engagement | • Teachers with access to available job resources may have higher levels of commitment and engagement.  
• Teachers with a lack of available job resources are more prone to burnout, which decreases their levels of commitment and engagement. |
| Klusmann, U. et al. | Engagement and Emotional Exhaustion in Teachers: Does School Context Make a Difference? | 2008 | Teacher engagement and exhaustion | • School attributes have a minimal effect on teachers’ exhaustion levels.  
• Principal support is most positively associated with higher levels of teacher engagement.  
• Student misbehavior has the largest impact on teachers’ emotional exhaustion. |
| Louis, K. and B. Smith | Restructuring, Teacher Engagement, and School Culture: Perspective on School Reform and the Improvement of Teachers’ Work | 1991 | Teacher engagement | Characteristics of school restructuring efforts can have a positive effect on teacher engagement if they:  
• Align with school culture  
• Incorporate opportunities for collaboration and feedback  
• Help teachers develop positive personal and professional experiences |
| Perie, M. and D. Baker | Job Satisfaction among America’s Teachers: Effects of Workplace Conditions, Background Characteristics, and Teacher Compensation | 1997 | Teacher job satisfaction | Administrative support and leadership, student behavior, and school atmosphere are most associated with teacher satisfaction levels. |
| Shann, M.H. | Professional Commitment and Satisfaction Among Teacher in Urban Middle Schools | 1998 | Teacher job satisfaction | • Teacher-pupil ratios are the most important element in determining teachers’ job satisfaction.  
• Teachers in low-achieving schools reported feeling more dissatisfied with their school’s curriculum and with teacher-teacher relationships. |
SECTION II: SUPPORTING STUDENT ACHIEVEMENT THROUGH TEACHER ENGAGEMENT

This section of the report presents a discussion of the available research related to the effects that teacher engagement levels have on various student outcomes. In addition, it introduces a variety of approaches designed to promote teacher engagement that are cited as promising strategies in the existing literature.

STUDENT ACHIEVEMENT AND MEASURES OF TEACHER ENGAGEMENT

In recent decades, education policy makers have emphasized the role that teacher quality plays in student achievement. Education reformers generally argue that student achievement is low because teachers are underprepared, but the available literature suggests that a lack of teacher engagement may also be responsible for problems associated with student learning. For example, Louis and Ingram (1996) even argue that teacher engagement is essential for student engagement. This is likely because engaged teachers are “motivated, strategic, knowledgeable, and social in their approach to teaching,” thereby promoting student learning more effectively.

TEACHER ENGAGEMENT, SATISFACTION, AND COMMITMENT

There are a limited number of existing studies that examine the relationship between measures of teacher engagement and various student outcomes, but the majority of research reports a correlation between indicators of teacher engagement and student performance. For example, a 2011 study by Michelle Cardwell was developed to observe whether or not teacher engagement had a significant impact on student levels of engagement. Her research utilized both teacher and student responses to report the extent of teacher and student engagement. She found that high levels of teacher engagement did positively affect student engagement levels, but she also found a disconnect between teacher and student perceptions regarding their associated engagement levels.

A separate study conducted within a large metropolitan district in Georgia similarly determined a correlation between teacher satisfaction and student achievement. Teacher satisfaction for this study was evaluated based on teacher survey responses related to their

https://books.google.com/books?hl=en&lr=&id=B4Aw038aah4C&oi=fnd&pg=PA1&dq=williams+teacher+engagement&ots=U13jUNemGN&sig=IMFJpYy0cq8a9NFr7zD3SGjEO1o#v=onepage&q=teacher%20engagement&f=false

https://books.google.com/books?hl=en&lr=&id=5sCYG4fxw1kC&oi=fnd&pg=PA309&dq=%22teacher+engagement%22+teacher+achievement%22+student+achievement%22&f=false

satisfaction with administrative support, student behavior, school climate, autonomy, and efficacy, while student achievement was measured by students’ statewide standardized test scores in reading, language arts, and mathematics. The results, however, did not provide specific information regarding the elements of teacher satisfaction that result in improved student outcomes, as “teacher satisfaction is a complex phenomenon made up of several factors that individually cannot account for improved student achievement.”

Another study by Insim Park (2005) observed the impact that teacher commitment has on student achievement. To determine the relative impact of different types of teacher commitment, commitment as a variable was measured across three distinct and relevant categories: organizational, professional, and student commitment. The study concluded that individual variables associated with teacher commitment had a differential impact on student achievement, but organizational variables related to teacher commitment did not have a significant effect on student achievement.

**TEACHER EFFICACY**

As evidenced by studies cited previously in Section I of this report, teacher efficacy can have a significant effect on teacher engagement levels. Several studies focus on the relationship between teacher efficacy and student achievement, and overall the findings indicate that a teacher’s sense of efficacy is positively associated with student achievement. For example, a study by Tracz and Gibson (1986) focused on personal teaching efficacy, which is defined as a teacher’s level of confidence in his or her own teaching abilities. The study also examined the effects of teaching efficacy, or the “general expectation of student success.” The research evaluated the relationship that these forms of efficacy have on student achievement, and revealed that personal teaching efficacy is positively correlated with reading achievement and whole group instruction, while general teaching efficacy is significantly correlated with language and mathematics achievement. Research also indicates that teacher self-efficacy can have a positive impact on student motivation.

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42 Ibid.

Moreover, research conducted by Tschannen-Moran and Barr (2004) evaluated the connection between collective teacher efficacy and student achievement. Collective teacher efficacy is the belief among the teachers in a given school that they can make an educational impact on their students. Tschannen-Moran and Barr found a statistically significant and positive relationship between collective teacher efficacy and student achievement based on Grade 8 math, writing, and English assessments. Similarly, a study by Goddard, Hoy, and Hoy (2000) of urban elementary schools also found a positive association between collective teacher efficacy and student achievement in math and reading.

**TEACHER QUALITY**

According to Louis and Ingram, the delivery of consistent feedback for teachers is central to supporting their engagement. Furthermore, research indicates that meaningful feedback promotes teachers’ implementation of effective instructional behaviors and can lead to a reduction in problematic teacher behaviors. A multitude of research has studied the effects of teacher quality on student outcomes. Namely, a nationwide study carried out by Linda Darling-Hammond (2000) observed the effect that teacher qualifications and other school factors have on student achievement. For reading and mathematics achievement, Hammond determined that teacher preparation and certification are the strongest correlates of student performance. Her findings support the importance of teacher quality in determining student outcomes and suggest that schools adopt policies to improve the quality of teachers in order to increase student performance.

Another study by Wright, Horn, and Sanders (1997) sought to determine whether or not teacher effects had any bearing on student achievement growth after controlling for class size, individual student academic proficiencies, and differences across classrooms. The results indicate that teacher effects are central to student academic gains, noting that

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“classroom context variables of heterogeneity among students and class sizes have relatively little influence on academic gain.”49

Finally, a 2003 meta-analysis by Wayne and Youngs synthesized research from hundreds of existing studies to determine what teacher characteristics have a notable effect on student achievement gains. Noting that there is a large body of research examining the characteristics of effective teachers, the authors specifically designed the study to amalgamate the expansive research base associated with teacher quality. The studies included in the analysis focused on a number of teacher characteristics and utilized student standardized test scores as a measure of achievement. The relevant teacher characteristics observed by the studies cited in Wayne and Youngs’ analysis include: ratings of teachers’ undergraduate institution, teachers’ scores on verbal skills and other tests, teachers’ degrees and coursework, and certification status.50

Wayne and Youngs found a positive relationship between student achievement and teachers’ college ratings and test scores. The correlation between student performance and teachers’ degrees, coursework, and certification was indeterminate except for high school mathematics, where students are shown to learn more when they are taught by teachers who have certifications, degrees, and coursework relevant to the field of mathematics.51

**APPROACHES TO PROMOTE TEACHER ENGAGEMENT**

The evidence presented throughout this report indicates that teacher engagement is an important element associated with student achievement. In order to understand how to effectively promote teacher engagement, it is imperative to recognize what school-level factors are most important in determining teachers’ level of engagement.

**SCHOOL-LEVEL FACTORS ASSOCIATED WITH HIGH LEVELS OF ENGAGEMENT**

A study by the National Center on Effective Secondary Schools sought to identify school-level elements that contribute to higher levels of teacher engagement. The study utilized a survey that focused on measuring seven indicators of engagement among teachers, including:52

- Sense of efficacy/satisfaction
- Sense of integration into staff culture
- Expectations for student achievement

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51. Ibid. p. 107.

Sense of control over classroom practices and procedures
Instructional preparation time
Time devoted to extended role contacts with students
Changes in teaching practices and procedures

Ultimately, the study’s analysis revealed that 11 school-site variables directly impact teacher engagement and success. These variables include:\(^{53}\)

- Teacher gender
- Teachers’ years of experience at their current school
- Student ability
- School size
- School urbanicity
- School environment
- Manageability of teacher tasks
- Support for innovation
- Teacher input in decision-making
- Sense of community
- Opportunities for collaboration

Additionally, the analysis found that staff recognition, collaboration, teacher in-service, staff development time, principal leadership, and administrator responsiveness all indirectly affect teacher engagement levels.\(^{54}\) Figure 2.1 describes the school-level factors that directly affect teacher engagement and presents potential explanations of the correlations highlighted in this study.

**Figure 2.1: School Level Factors Associated with Teacher Engagement**

<table>
<thead>
<tr>
<th>VARIABLES THAT IMPACT TEACHER ENGAGEMENT</th>
<th>POSSIBLE EXPLANATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INDIVIDUAL TEACHER VARIABLES</strong></td>
<td></td>
</tr>
<tr>
<td>Teacher gender</td>
<td>- Female teachers’ higher levels of engagement are attributed to the fact that they have different career definitions than males and the notion that women gain a greater feeling of satisfaction from teaching than men.</td>
</tr>
</tbody>
</table>
| Years of experience at present school | - Teachers are more assimilated into the culture of the school.  
- The length of their teaching career may evoke higher personal investment over time.  
- Experienced teachers are familiar with how to acquire the resources they need to be effective. |

\(^{53}\) Ibid. p. 16.  
\(^{54}\) Ibid. pp. 16-26.
<table>
<thead>
<tr>
<th>VARIABLES THAT IMPACT TEACHER ENGAGEMENT</th>
<th>POSSIBLE EXPLANATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experienced teachers may be able to spend more time devoted to teaching.</td>
<td></td>
</tr>
<tr>
<td>Veteran teachers may get their choice of teaching assignments.</td>
<td></td>
</tr>
</tbody>
</table>

**DEMOGRAPHIC CHARACTERISTICS OF SCHOOLS**

<table>
<thead>
<tr>
<th>Student ability</th>
<th>Teachers do not feel a need to engage if their competency is pre-determined by student ability.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teachers may believe that their quality of teaching will not change their status.</td>
</tr>
<tr>
<td></td>
<td>Teachers are likely to not receive as much support for their efforts if they attempt to provide quality instruction for students identified as less able, disinterested, or unlikely to learn.</td>
</tr>
<tr>
<td></td>
<td>Teachers derive a number of personal benefits from positive teacher-student interactions.</td>
</tr>
</tbody>
</table>

| School size           | Urbanicity influences engagement in a negative way while large schools impact engagement positively. This may be because once urbanicity is controlled for the larger schools provide more available resources, programs, and opportunities for community partnerships, which are all shown to encourage teacher engagement. |

| Urbanicity            |                                                                                       |

**ORGANIZATIONAL FEATURES OF SCHOOL**

<table>
<thead>
<tr>
<th>Orderly school environment</th>
<th>Orderly school environment has the largest effect on teacher engagement and this is likely due to the fact that student discipline is consistently linked to low teacher morale.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>School order typically results in minimal disruption, well-behaved students, and limited interference during lessons.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manageable teaching task</th>
<th>Educational goals are achievable.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teachers need adequate time, material, and support to do their jobs well.</td>
</tr>
<tr>
<td></td>
<td>Takes into account differentiated teaching loads.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Encouragement of innovation</th>
<th>Gives teachers responsibility for the success or failure of an experiment.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Leads to self-confidence and satisfaction if an experiment is successful.</td>
</tr>
<tr>
<td></td>
<td>Builds on existing knowledge and expertise if an experiment fails.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher input into decision making</th>
<th>Empowers teachers and they feel as though their opinions are valid.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teachers desire to be treated like professionals and want administrators to utilize their judgment and expertise.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sense of community</th>
<th>Sense of community is the second strongest predictor of teacher engagement because it is thought to contribute to a teachers’ sense of efficacy and satisfaction.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teachers are not isolated from each other and feel integrated into the school’s culture.</td>
</tr>
<tr>
<td></td>
<td>Motivates teachers because they work with group of colleagues whom they respect and share similar goals.</td>
</tr>
<tr>
<td></td>
<td>Teachers can express frustration openly and seek advice from their fellow teachers.</td>
</tr>
</tbody>
</table>

| Collaboration                     |                                                                                       |

Source: National Center on Effective Secondary Schools

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55 Ibid.
ENCOURAGING TEACHER ENGAGEMENT

Previous sections of this report present evidence suggesting numerous variables that influence teachers’ engagement levels. The aforementioned findings support the idea that there is not necessarily one overarching approach that will lead to high levels of engagement across all teachers in a school. Nonetheless, a number of educational experts have compiled the available research and made their own recommendations about what varied strategies might work best to foster teacher engagement.

MacTavish and Kolb (2006) developed a research-based model for promoting teacher engagement that focuses on collaboration and authentic leadership. The foundation of their theory is that collaboration leads to empowerment among teachers, which results in increased professional engagement. Their approach also suggests that collaboration between teachers may initiate authentic leadership, which research shows is positively associated with subsequent engagement levels. The components of MacTavish and Kolb’s approach are illustrated in Figure 2.2.

**Figure 2.2 Model to Promote Engagement through Collaboration**

Following the presentation and explanation of their model, MacTavish and Kolb offer a number of research-based recommendations related to the elements included in their approach, some of which include the following:

- **All stakeholders should be engaged in developing a clear and focused school mission that they support.** This is introduced as a central component because a uniform mission and vision are imperative for effective collaboration.

- **Schools should develop a structure that supports leadership among teachers.** A hierarchical and strict organizational design has the potential to negatively affect teacher initiative. The arrangement of the school day and design of the campus is essential to create a collaborative and positive environment, and can have an impact on teachers’ ability to communicate and work with one another.

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57 Ibid. p. 1383.
- **School leadership should model authentic leadership that promotes collaboration and engagement.** A principal’s actions and presence are important to teacher engagement: if a principal “is viewed as someone who knows and respects what is going on in the classrooms, an opportunity develops to build a relationship of mutual respect and trust.”

- **Effective school leaders must also empower teachers in their school.** This can be done by increasing access to school information, developing rewards for excellence, encouraging teacher involvement in school decision-making processes, promoting classroom innovations, or permitting resource autonomy. In addition, teachers should be provided with opportunities to participate in professional organizations or learning communities that enhance their capacity and ability to innovate.

Additional literature by Keith Leithwood (2006) provides a variety of research-based recommendations for teachers and administrators about how to effectively develop working conditions that inspire teacher engagement, efficacy, and satisfaction. Figure 2.3 contains Leithwood’s recommendations for each group of education professionals and presents an additional explanation for how to carry out each recommendation.

**Figure 2.3 Recommendations for Creating Positive Teacher Working Conditions**

<table>
<thead>
<tr>
<th>RECOMMENDATION</th>
<th>EXPLANATION</th>
</tr>
</thead>
</table>
| **Build a network of professional colleagues** | - Evidence supports the idea that collaborative school cultures result in better classroom instruction and greater student learning.  
- A network of professional colleagues is a professional development tool that can contribute to teachers’ professional knowledge and sense of self-efficacy.  
- A collaborative professional network can provide a form of social support for teachers that reduces their level of anxiety and stress, which can decrease teachers’ likelihood of burning out. |
| **Be proactive about professional development** | - Meaningful professional development is linked to improved teacher quality and higher levels of morale, commitment, and engagement.  
- Evidence suggests that the most effective forms of professional development are designed by teachers and take place in teachers’ own schools.  
- To take charge of professional development teachers can organize a study group; invite a colleague from another school to share their work; subscribe to professional journals; or steer break room conversations toward discussions about effective instructional practices. |
| **Expect effective leadership from administrators** | - Evidence indicates that leadership practices of principals are extremely important in determining teachers’ working conditions as principals are often responsible for much of what happens in schools.  
- Effective leadership is collaborative, supportive, consistent, friendly, informative, instructionally expert, skilled in finding requested resources, reasonable in its demands, and clear and explicit about priorities.  
- Teachers should share their views and advice with principals in a diplomatic way. |
<table>
<thead>
<tr>
<th>RECOMMENDATION</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Insist on having a voice in decision-making</strong></td>
<td>• A role in the decision-making process for teachers is shown to be positively associated with teacher engagement and satisfaction.</td>
</tr>
<tr>
<td></td>
<td>• Participation in decision-making gives teachers the chance to impact their own work and the work of their peers through their personal knowledge and professional experience.</td>
</tr>
<tr>
<td></td>
<td>• Teacher participation in decision-making reduces the likelihood that administrators will make poorly informed decisions and also distributes leadership throughout the school.</td>
</tr>
<tr>
<td><strong>Place realistic boundaries around volunteer work</strong></td>
<td>• Teachers a generally known for their commitment levels, but taking on too much responsibility can result in increased levels of stress and decreased job satisfaction.</td>
</tr>
<tr>
<td></td>
<td>• Teachers have more control over the number of tasks they take on as a member of the school as an organization (e.g. managing extracurricular activities, leading school events, etc.) so they should avoid taking on an overwhelming workload.</td>
</tr>
<tr>
<td><strong>Develop more positive teacher working conditions</strong></td>
<td>• Keep teachers’ overall pupil load manageable.</td>
</tr>
<tr>
<td></td>
<td>• Ensure that teachers are able to teach in their areas of expertise whenever possible.</td>
</tr>
<tr>
<td></td>
<td>• Develop school-wide supports for dealing with student misbehavior.</td>
</tr>
<tr>
<td></td>
<td>• Allow teachers as much autonomy as possible over instructional duties.</td>
</tr>
<tr>
<td></td>
<td>• Ensure teachers have the opportunity to participate in school decision making.</td>
</tr>
<tr>
<td></td>
<td>• Foster a positive school atmosphere.</td>
</tr>
<tr>
<td></td>
<td>• Help teachers develop productive relationships with parents.</td>
</tr>
<tr>
<td><strong>Eliminate working conditions that threaten student learning</strong></td>
<td>• Mitigate likelihood of stress and burnout, which can negatively impact teacher performance and student learning. Stress and burnout can be caused by excessive demands, unreasonable constraints, and a lack of social support.</td>
</tr>
<tr>
<td></td>
<td>• Administrators should be reasonable about the policies and practices they ask teachers to implement in their classrooms; monitor the level of excess responsibility taken on by all teachers; and screen out external demands for change that are not related to the school’s improvement.</td>
</tr>
<tr>
<td></td>
<td>• To reduce unreasonable constraints, school leaders should critically examine inflexible rules, hierarchical administrative structures, prescriptive mandates related to one’s work, and autocratic administration.</td>
</tr>
<tr>
<td></td>
<td>• Administrators should provide support to teachers as a counselor and encourager rather than an instructional leader.</td>
</tr>
<tr>
<td><strong>Build a leadership approach that is based on the best available evidence</strong></td>
<td>• The available research regarding educational leadership is expansive and diverse in how it portrays effective leadership.</td>
</tr>
<tr>
<td></td>
<td>• In order to limit the amount of leadership research, administrators should focus on leadership advice that is based on “robust empirical evidence.”</td>
</tr>
</tbody>
</table>

Source: Elementary Teachers’ Federation of Ontario\(^{58}\)

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