

To Examine the Relationship between Teaching Effectiveness of Secondary School Teachers in Relation to Work Motivation and Professional Commitment

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Abstract

This review paper examines the relationships between teaching effectiveness, work motivation, and professional commitment among secondary school teachers. A comprehensive analysis of existing literature reveals that these three factors are closely interrelated and have significant impacts on educational outcomes. Higher levels of work motivation and professional commitment are generally associated with greater teaching effectiveness. However, the relationships are complex and influenced by various individual, organizational, and contextual factors. This paper synthesizes key findings, identifies gaps in current knowledge, and provides recommendations for future research and practice to enhance teaching quality in secondary education.

Keywords: teaching effectiveness, work motivation, professional commitment, secondary education, teacher performance

1. Introduction

The quality of teaching is widely recognized as one of the most important factors influencing student learning outcomes and overall educational effectiveness (Hattie, 2009). As such, understanding the determinants of teaching effectiveness has been a major focus of educational research and policy. Two key factors that have emerged as potentially significant influences on teaching quality are teachers' work motivation and their professional commitment (Klassen et al., 2012; Day et al., 2005).

Work motivation refers to the psychological processes that direct, energize, and sustain work-related behaviors (Pinder, 2008). In the context of teaching, it encompasses the internal and external factors that drive teachers to invest effort in their work and persist in the face of challenges. Professional commitment, on the other hand, relates to teachers' psychological attachment to their profession and their willingness to exert effort on behalf of the teaching profession (Meyer et al., 1993).

While numerous studies have examined these constructs individually, there is a growing recognition of the need to consider their interrelationships and combined effects on teaching effectiveness. This review paper aims to synthesize the current state of knowledge regarding the connections between teaching effectiveness, work motivation, and professional commitment among secondary school teachers. By doing so, it seeks to provide a comprehensive overview of existing research, identify key trends and gaps

in the literature, and offer insights to inform future research and practice in this critical area of education.

Through this comprehensive review, we aim to contribute to a deeper understanding of the complex interplay between teaching effectiveness, work motivation, and professional commitment in secondary education.

2. Conceptual Framework

To guide our review and analysis, we propose a conceptual framework that illustrates the hypothesized relationships between teaching effectiveness, work motivation, and professional commitment (Figure 1). This framework draws on existing theoretical models and empirical findings in the literature.

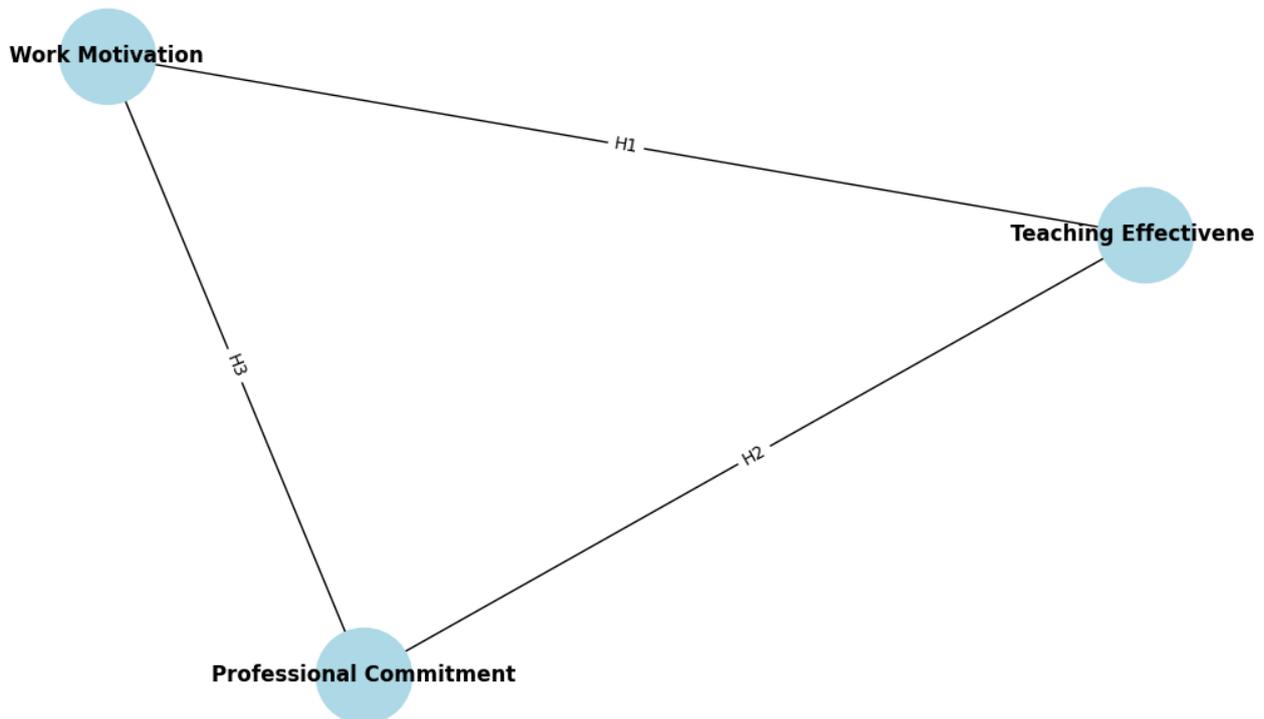


Figure 1: Conceptual framework illustrating the relationships between teaching effectiveness, work motivation, and professional commitment.

The framework posits three main hypotheses:

H1: Work motivation is positively related to teaching effectiveness. H2: Professional commitment is positively related to teaching effectiveness. H3: Work motivation and professional commitment are positively related to each other.

These hypothesized relationships are based on the following theoretical foundations:

1. Self-Determination Theory (SDT; Ryan & Deci, 2000): SDT suggests that intrinsic motivation and internalized forms of extrinsic motivation lead to higher quality engagement and performance in various domains, including teaching.
2. Social Exchange Theory (SET; Blau, 1964): SET proposes that individuals develop attitudes and behaviors based on the perceived balance of their investments and the rewards they receive. In the context of teaching, this theory helps explain how organizational support and working conditions can influence teachers' motivation and commitment.

3. Job Demands-Resources (JD-R) Model (Bakker & Demerouti, 2007): The JD-R model posits that job resources (e.g., autonomy, social support) can buffer the negative effects of job demands and enhance work engagement, which in turn can lead to better performance.
4. Teacher Identity Theory (Beijaard et al., 2004): This theory emphasizes the importance of teachers' professional identity in shaping their commitment to the profession and their teaching practices. Throughout this review, we will examine how existing research supports or challenges these hypothesized relationships and the underlying theoretical foundations.

3. Teaching Effectiveness: Definitions and Measures

3.1 Defining Teaching Effectiveness

Teaching effectiveness is a complex and multifaceted construct that has been defined and operationalized in various ways in the literature. At its core, teaching effectiveness refers to the degree to which a teacher's actions and behaviors facilitate student learning and achievement of educational goals (Stronge, 2018). However, the specific components and indicators of effective teaching can vary depending on the educational context, subject matter, and theoretical perspective adopted.

Some common elements that are frequently included in definitions of teaching effectiveness include:

1. Subject matter knowledge
2. Pedagogical skills
3. Classroom management abilities
4. Student engagement
5. Assessment and feedback practices
6. Adaptability and responsiveness to student needs
7. Fostering of higher-order thinking skills
8. Promotion of positive learning environments

Darling-Hammond (2000) emphasizes that effective teaching involves not just the transmission of knowledge, but also the ability to create learning experiences that enable diverse learners to construct their own knowledge in ways that support cognitive, emotional, and social development.

3.2 Measures of Teaching Effectiveness

Given the complexity of teaching effectiveness as a construct, a wide range of measures have been developed and used in research and practice. These measures can be broadly categorized into the following types:

1. Student Achievement Measures: These include standardized test scores, value-added models, and other indicators of student learning outcomes.
2. Classroom Observation Protocols: Structured observation tools used by trained observers to assess various aspects of teaching practice.
3. Student Surveys: Questionnaires that capture students' perceptions of their teachers' effectiveness.
4. Teacher Self-Reports: Measures that rely on teachers' own assessments of their teaching effectiveness.
5. Principal or Peer Evaluations: Assessments conducted by school administrators or fellow teachers.
6. Portfolios and Artifacts: Collections of teaching materials, lesson plans, and student work samples that demonstrate teaching quality.

Table 1 provides an overview of some commonly used measures of teaching effectiveness in secondary education research:

Table 1: Common Measures of Teaching Effectiveness in Secondary Education

Measure Type	Examples	Strengths	Limitations
Student Achievement Measures	- Standardized test scores- Value-added models- Student growth percentiles	- Objective- Linked to policy-relevant outcomes	- May not capture all aspects of learning- Can be influenced by factors outside teacher control
Classroom Observation Protocols	- Framework for Teaching (Danielson, 2013)- Classroom Assessment Scoring System (CLASS)- International Comparative Analysis of Learning and Teaching (ICALT)	- Provides detailed information on teaching practices- Can be used for both research and professional development	- Time and resource-intensive- Potential for observer bias
Student Surveys	- Tripod 7Cs Survey- My Teacher My Voice Survey	- Captures student perspective- Can provide actionable feedback for teachers	- May be influenced by factors unrelated to teaching quality- Reliability concerns with younger students
Teacher Self-Reports	- Teachers' Sense of Efficacy Scale (TSES)- Self-Assessment of Teaching Knowledge	- Provides insight into teachers' perceptions and experiences- Relatively easy to administer	- Potential for self-report bias- May not align with external assessments
Principal or Peer Evaluations	- School-specific evaluation rubrics- Peer observation protocols	- Incorporates professional judgment- Can be integrated into existing school processes	- Potential for bias or inconsistency- May focus on observable behaviors at expense of other factors
Portfolios and Artifacts	- National Board Certification portfolios- Digital teaching portfolios	- Provides rich, contextual evidence of teaching practice- Can capture teaching quality over time	- Time-consuming to prepare and evaluate- Standardization challenges

3.3 Challenges in Measuring Teaching Effectiveness

While numerous measures of teaching effectiveness exist, each approach has its strengths and limitations. Some key challenges in measuring teaching effectiveness include:

1. Complexity of the construct: Teaching effectiveness encompasses multiple dimensions, making it difficult to capture comprehensively with a single measure.
2. Context-dependency: What constitutes effective teaching may vary across different subjects, grade levels, and student populations.
3. Attribution issues: It can be challenging to isolate the impact of individual teachers on student outcomes, given the influence of various other factors.
4. Reliability and validity concerns: Ensuring consistent and accurate measurement across different raters, contexts, and time points is an ongoing challenge.
5. Potential for unintended consequences: High-stakes use of teaching effectiveness measures can lead to teaching to the test or other undesirable practices.
6. Resource constraints: Comprehensive assessment of teaching effectiveness often requires significant time and resources, which may not be feasible in all settings.

Given these challenges, researchers and practitioners increasingly advocate for the use of multiple measures to provide a more holistic and nuanced assessment of teaching effectiveness (Goe et al., 2008). This multi-measure approach can help balance the strengths and limitations of different assessment methods and provide a more comprehensive picture of teaching quality.

4. Work Motivation in Teaching

4.1 Conceptualizing Work Motivation in Education

Work motivation in the context of teaching refers to the psychological processes that influence teachers' choice of actions, level of effort, and persistence in their professional activities (Gagné & Deci, 2005). Understanding teacher motivation is crucial because it can significantly impact teaching quality, job satisfaction, and ultimately, student outcomes (Han & Yin, 2016).

Several theoretical frameworks have been applied to conceptualize work motivation in teaching:

1. Self-Determination Theory (SDT; Ryan & Deci, 2000): This theory distinguishes between intrinsic motivation (doing an activity for its inherent satisfaction) and extrinsic motivation (doing an activity for separable consequences). SDT proposes that motivation exists along a continuum from amotivation to extrinsic motivation to intrinsic motivation.
2. Expectancy-Value Theory (Wigfield & Eccles, 2000): This theory suggests that motivation is a function of the expectancy of success in a task and the value attached to that success.
3. Achievement Goal Theory (Elliot & McGregor, 2001): This framework focuses on the purposes or reasons individuals perceive for achieving in academic settings, distinguishing between mastery and performance goals.
4. Job Characteristics Model (Hackman & Oldham, 1976): This model proposes that certain core job characteristics (skill variety, task identity, task significance, autonomy, and feedback) influence work motivation through their impact on critical psychological states.

4.2 Types of Work Motivation in Teaching

Based on these theoretical frameworks, several types of work motivation relevant to teaching have been identified:

1. **Intrinsic Motivation:** This refers to engaging in teaching activities for the inherent satisfaction and enjoyment they provide. Intrinsically motivated teachers find the act of teaching itself rewarding.
2. **Identified Regulation:** This type of motivation occurs when teachers internalize the value of their work and see it as personally important, even if the activities themselves are not inherently enjoyable.
3. **Introjected Regulation:** This involves engaging in teaching activities to avoid guilt or anxiety or to attain ego enhancements such as pride.
4. **External Regulation:** This type of motivation is driven by external rewards or punishments, such as salary, job security, or evaluation outcomes.
5. **Amotivation:** This represents a lack of intention to act and is characterized by teachers feeling that their actions will not lead to desired outcomes.

Table 2 summarizes these types of motivation and their characteristics in the context of teaching:

Table 2: Types of Work Motivation in Teaching

Motivation Type	Description	Example in Teaching Context
Intrinsic Motivation	Engaging in teaching for inherent satisfaction	Enjoying the process of explaining concepts to students
Identified Regulation	Valuing teaching activities as personally important	Recognizing the importance of education for society
Introjected Regulation	Teaching to avoid guilt or enhance self-esteem	Putting extra effort to avoid feeling like a "bad teacher"
External Regulation	Teaching for external rewards or to avoid punishments	Working hard to secure a promotion or avoid negative evaluations
Amotivation	Lack of motivation to teach	Feeling that one's teaching efforts do not make a difference

4.3 Factors Influencing Work Motivation in Teaching

Numerous factors can influence teachers' work motivation. These can be broadly categorized into individual, organizational, and contextual factors:

Individual Factors:

- Personal characteristics (e.g., age, gender, personality traits)
- Professional background (e.g., education, experience)
- Self-efficacy beliefs
- Personal goals and values

Organizational Factors:

- School leadership and management style
- Collegial relationships and school climate
- Professional development opportunities

- Workload and time pressures
- Autonomy and decision-making power

Contextual Factors:

- Educational policies and reforms
- Societal perceptions of teaching profession
- Cultural values and norms
- Economic conditions

4.4 Measuring Work Motivation in Teaching

Various instruments have been developed to measure work motivation in teaching. Some commonly used measures include:

1. Work Tasks Motivation Scale for Teachers (WTMST; Fernet et al., 2008): This scale measures different types of motivation (intrinsic, identified, introjected, external, amotivation) for six work tasks: class preparation, teaching, evaluation of students, classroom management, administrative tasks, and complementary tasks.
2. Multidimensional Work Motivation Scale (MWMS; Gagné et al., 2015): While not specific to teaching, this scale has been adapted for use in educational settings. It measures amotivation, external regulation, introjected regulation, identified regulation, and intrinsic motivation.
3. Factors Influencing Teaching Choice Scale (FIT-Choice; Watt & Richardson, 2007): This instrument measures various motivations for choosing teaching as a career, including intrinsic value, personal utility value, and social utility value.
4. Teacher Motivation Inventory (TMI; Klassen et al., 2020): This recently developed measure assesses four dimensions of teacher motivation: enthusiasm, persistency, commitment, and attentiveness.

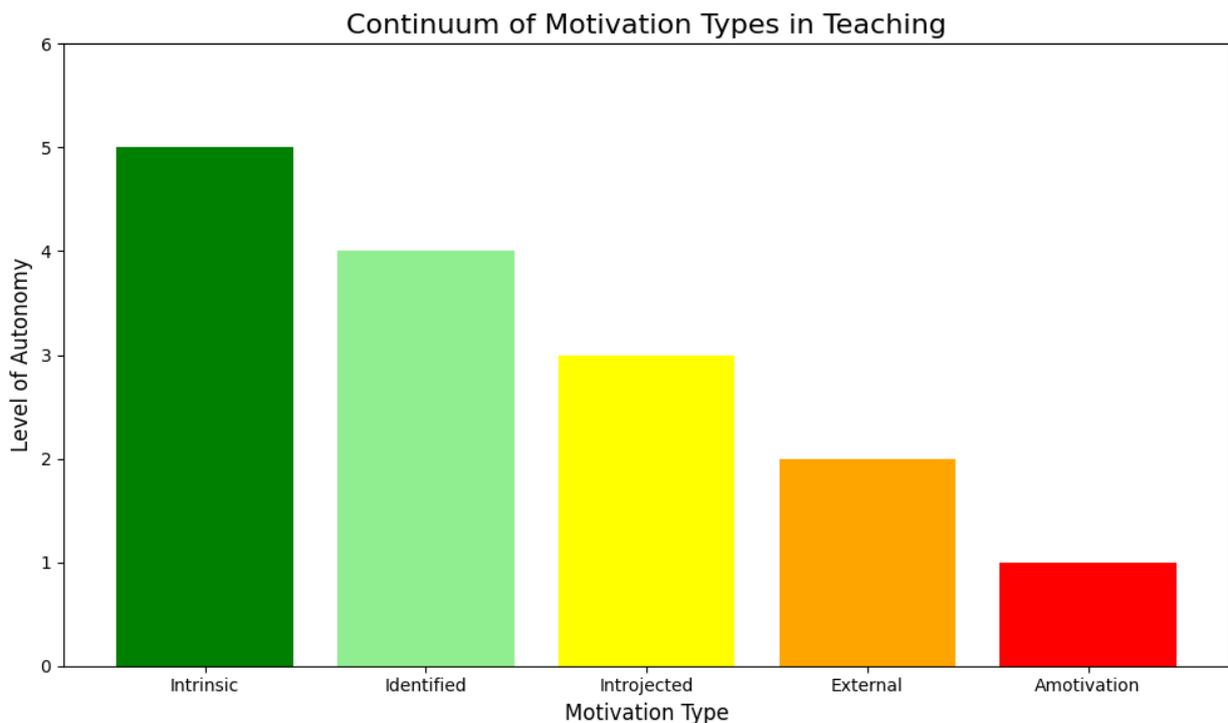


Figure 2: Continuum of motivation types in teaching based on Self-Determination Theory

4.5 Implications of Work Motivation for Teaching Effectiveness

Research has consistently shown that higher levels of autonomous motivation (intrinsic and identified regulation) are associated with various positive outcomes in teaching, including:

1. Greater teaching effectiveness and quality (Roth et al., 2007)
2. Higher job satisfaction and lower burnout (Fernet et al., 2012)
3. Increased use of adaptive teaching strategies (Hein et al., 2012)
4. Better student motivation and engagement (Pelletier et al., 2002)

Conversely, controlled forms of motivation (introjected and external regulation) and amotivation have been linked to less desirable outcomes, such as emotional exhaustion and reduced personal accomplishment (Fernet et al., 2008).

Understanding the nuances of work motivation in teaching is crucial for developing effective strategies to enhance teaching quality and support teacher well-being. The next sections will explore how work motivation interacts with professional commitment and ultimately influences teaching effectiveness.

5. Professional Commitment of Teachers

5.1 Defining Professional Commitment in Teaching

Professional commitment refers to teachers' psychological attachment to their profession and their willingness to exert effort on behalf of the teaching profession (Meyer et al., 1993). It is a multidimensional construct that reflects the degree to which teachers identify with, are involved in, and are loyal to their profession (Somech & Bogler, 2002).

Professional commitment is distinct from organizational commitment, which refers to attachment to a specific school or institution. While these two forms of commitment can be related, professional commitment focuses on the broader commitment to the teaching profession itself.

5.2 Components of Professional Commitment

Drawing on the work of Meyer and Allen (1991) in organizational commitment, professional commitment in teaching can be conceptualized as having three components:

1. **Affective Commitment:** This refers to teachers' emotional attachment to, identification with, and involvement in the teaching profession. Teachers with high affective commitment stay in the profession because they want to.
2. **Continuance Commitment:** This relates to teachers' awareness of the costs associated with leaving the profession. Teachers with high continuance commitment remain in teaching because they need to, often due to lack of alternatives or high personal investment in their career.
3. **Normative Commitment:** This reflects a feeling of obligation to remain in the teaching profession. Teachers with high normative commitment stay because they feel they ought to, often due to moral or ethical considerations.

Table 3 summarizes these components of professional commitment:

Table 3: Components of Professional Commitment in Teaching

Component	Description	Example
Affective Commitment	Emotional attachment to the teaching profession	"I love being a teacher and can't imagine doing anything else."

Continuance Commitment	Awareness of costs associated with leaving teaching	"I've invested too much in my teaching career to change professions now."
Normative Commitment	Feeling of obligation to remain in teaching	"I feel a moral responsibility to continue serving as a teacher."

5.3 Factors Influencing Professional Commitment

Various factors can influence teachers' professional commitment. These can be categorized into individual, organizational, and contextual factors:

Individual Factors:

- Personal characteristics (e.g., age, gender, personality traits)
- Professional identity
- Self-efficacy beliefs
- Career stage and experience

Organizational Factors:

- School culture and climate
- Leadership and administrative support
- Professional development opportunities
- Collegial relationships
- Working conditions and resources

Contextual Factors:

- Societal value placed on teaching
- Educational policies and reforms
- Economic conditions and job market
- Cultural norms and expectations

5.4 Measuring Professional Commitment in Teaching

Several instruments have been developed to measure professional commitment in teaching:

1. Professional Commitment Scale for Teachers (Wang & Zhang, 2010): This scale measures affective, continuance, and normative commitment specifically in the teaching context.
2. Occupational Commitment Scale (Meyer et al., 1993): While not specific to teaching, this scale has been adapted for use in educational settings and measures affective, continuance, and normative commitment to an occupation.
3. Professional Commitment Questionnaire (Somech & Bogler, 2002): This instrument focuses on measuring affective commitment to the teaching profession.
4. Teacher Commitment Scale (Ware & Kitsantas, 2007): This scale measures commitment to teaching as a profession, commitment to student learning, and commitment to the school organization.

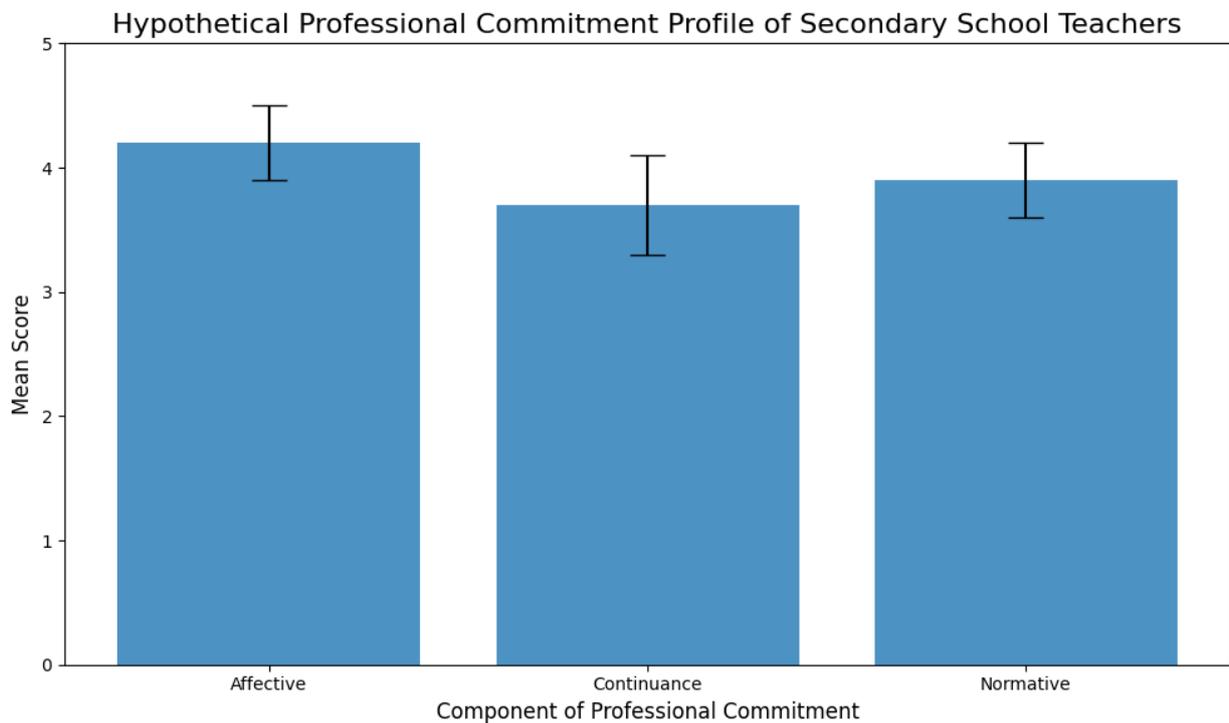


Figure 3: Hypothetical professional commitment profile of secondary school teachers

5.5 Implications of Professional Commitment for Teaching Effectiveness

Research has shown that professional commitment can have significant implications for teaching effectiveness and various other educational outcomes:

1. **Teaching Quality:** Teachers with higher professional commitment tend to exhibit better teaching performance and use more effective instructional strategies (Ware & Kitsantas, 2011).
2. **Student Achievement:** Higher teacher professional commitment has been associated with improved student academic achievement (Park, 2005).
3. **Teacher Retention:** Professional commitment is a strong predictor of teachers' intentions to remain in the profession (Chesnut & Burley, 2015).
4. **Job Satisfaction:** Teachers with higher professional commitment generally report greater job satisfaction (Somech & Bogler, 2002).
5. **Organizational Citizenship Behavior:** Professional commitment is positively related to teachers' willingness to engage in extra-role behaviors that benefit their school and students (Bogler & Somech, 2004).
6. **Resilience and Coping:** Teachers with strong professional commitment tend to show greater resilience in the face of challenges and are better able to cope with job-related stress (Day et al., 2005).

Understanding the nature and implications of professional commitment is crucial for developing strategies to enhance teaching effectiveness and promote teacher retention. The next section will explore how professional commitment interacts with work motivation and teaching effectiveness.

6. Relationships between Teaching Effectiveness, Work Motivation, and Professional Commitment

6.1 Overview of Interrelationships

The relationships between teaching effectiveness, work motivation, and professional commitment are complex and multifaceted. While each construct has been studied extensively in isolation, research examining their interrelationships has grown in recent years. This section synthesizes key findings from the literature regarding these interrelationships.

6.2 Work Motivation and Teaching Effectiveness

Numerous studies have found positive associations between teachers' work motivation and various indicators of teaching effectiveness:

1. **Instructional Practices:** Highly motivated teachers tend to use more diverse and student-centered instructional strategies (Thoonen et al., 2011).
2. **Classroom Management:** Teachers with higher autonomous motivation demonstrate more effective classroom management skills (Pelletier et al., 2002).
3. **Student Engagement:** Teacher motivation is positively related to student engagement and motivation (Roth et al., 2007).
4. **Student Achievement:** Some studies have found positive correlations between teacher motivation and student academic outcomes, although the relationship is often mediated by other factors (Klassen et al., 2012).

The relationship between work motivation and teaching effectiveness appears to be particularly strong for autonomous forms of motivation (intrinsic motivation and identified regulation). For example, Roth et al. (2007) found that teachers' autonomous motivation was positively associated with students' perceptions of autonomy support, which in turn predicted students' autonomous motivation for learning.

6.3 Professional Commitment and Teaching Effectiveness

Research has also demonstrated links between teachers' professional commitment and various aspects of teaching effectiveness:

1. **Instructional Quality:** Teachers with higher professional commitment tend to exhibit better overall teaching performance and use more effective instructional strategies (Ware & Kitsantas, 2011).
2. **Student Achievement:** Some studies have found positive associations between teacher professional commitment and student academic outcomes (Park, 2005).
3. **Extra-Role Behaviors:** Professional commitment is positively related to teachers' willingness to engage in extra-role behaviors that can enhance overall school effectiveness (Bogler & Somech, 2004).
4. **Adaptability:** Teachers with strong professional commitment show greater adaptability in implementing educational innovations and reforms (Day et al., 2005).

The affective component of professional commitment appears to have the strongest relationship with teaching effectiveness. For instance, Somech and Bogler (2002) found that affective professional commitment was more strongly associated with teachers' participation in decision-making and organizational citizenship behaviors compared to continuance commitment.

6.4 Work Motivation and Professional Commitment

Work motivation and professional commitment are closely related constructs, with several studies finding significant positive correlations between them:

1. **Autonomous Motivation and Affective Commitment:** Teachers with higher levels of autonomous motivation tend to report stronger affective commitment to the teaching profession (Fernet et al., 2017).
2. **Controlled Motivation and Continuance Commitment:** More controlled forms of motivation (e.g., external regulation) have been associated with higher levels of continuance commitment (Meyer et al., 2004).
3. **Amotivation and Reduced Commitment:** Teachers experiencing amotivation are more likely to report lower levels of professional commitment across all components (Fernet et al., 2017).

The relationship between work motivation and professional commitment appears to be bidirectional. While motivation can foster commitment, a strong sense of professional commitment can also enhance motivation by providing a sense of purpose and meaning in one's work.

6.5 Integrated Models

Several researchers have proposed integrated models that attempt to capture the complex interrelationships between teaching effectiveness, work motivation, and professional commitment. For example:

1. Klassen et al. (2012) proposed a model in which teacher motivation influences both teaching effectiveness and professional commitment, with professional commitment also having a direct effect on teaching effectiveness.
2. Day et al. (2005) developed a model of teacher effectiveness that incorporates both motivation and commitment as key factors influencing teachers' professional lives and effectiveness over time.
3. Fernet et al. (2016) proposed a model linking school environment, work motivation, occupational commitment, and teacher functioning, suggesting that motivation mediates the relationship between school environment and commitment.

Table 4 summarizes some key findings regarding the interrelationships between teaching effectiveness, work motivation, and professional commitment:

Table 4: Summary of Key Findings on Interrelationships

Relationship	Key Findings
Work Motivation → Teaching Effectiveness	- Positive association, especially for autonomous motivation- Influences instructional practices, classroom management, and student engagement
Professional Commitment → Teaching Effectiveness	- Positive association, particularly for affective commitment- Impacts instructional quality, extra-role behaviors, and adaptability
Work Motivation ↔ Professional Commitment	- Bidirectional relationship- Autonomous motivation linked to affective commitment- Controlled motivation associated with continuance commitment

Integrated Effects	- Motivation and commitment may have both direct and indirect effects on teaching effectiveness- Complex interplay influenced by individual, organizational, and contextual factors
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6.6 Challenges in Studying Interrelationships

Several challenges exist in studying the interrelationships between teaching effectiveness, work motivation, and professional commitment:

1. **Causality:** Determining causal relationships is difficult due to the often cross-sectional nature of studies and the potential for reciprocal influences.
2. **Measurement Issues:** The complexity of these constructs and variations in how they are operationalized can make comparisons across studies challenging.
3. **Contextual Factors:** The relationships between these constructs may vary depending on cultural, organizational, and individual factors, necessitating careful consideration of context.
4. **Long-term Effects:** Many studies focus on short-term relationships, while the effects of motivation and commitment on teaching effectiveness may unfold over longer periods.
5. **Mediation and Moderation:** The relationships between these constructs are likely influenced by various mediating and moderating factors, adding complexity to their study.

Despite these challenges, understanding the interrelationships between teaching effectiveness, work motivation, and professional commitment is crucial for developing comprehensive approaches to enhancing teaching quality in secondary education.

7. Factors Influencing the Relationships

The relationships between teaching effectiveness, work motivation, and professional commitment are influenced by a wide range of factors. Understanding these influences is crucial for developing targeted interventions and policies to enhance teaching quality. This section explores key factors that can moderate or mediate the relationships between these constructs.

7.1 Individual Factors

Several individual characteristics can influence the relationships between teaching effectiveness, work motivation, and professional commitment:

1. **Demographic Characteristics:**
 - **Age and Career Stage:** The strength of relationships may vary across different career stages (Day et al., 2005).
 - **Gender:** Some studies have found gender differences in the levels and impacts of motivation and commitment (Klassen & Chiu, 2010).
2. **Personality Traits:**
 - **The Big Five personality traits** (openness, conscientiousness, extraversion, agreeableness, and neuroticism) have been found to influence both motivation and commitment (Jugović et al., 2012).
3. **Self-Efficacy:**
 - **Teachers' beliefs in their capabilities** can moderate the relationship between motivation and teaching effectiveness (Tschannen-Moran & Hoy, 2001).
4. **Professional Identity:**
 - **The strength and nature of teachers' professional identity** can influence how motivation and commitment translate into effective teaching practices (Beauchamp & Thomas, 2009).

5. Educational Background:

- Teachers' level of education and subject specialization may affect the relationships between motivation, commitment, and effectiveness (Akiri, 2013).

7.2 Organizational Factors

The school environment plays a crucial role in shaping the relationships between teaching effectiveness, motivation, and commitment:

1. School Leadership:

- Supportive and transformational leadership styles can enhance the positive effects of motivation and commitment on teaching effectiveness (Leithwood & Sun, 2012).

2. Collegial Relationships:

- Positive relationships with colleagues can strengthen the link between motivation and teaching effectiveness (Skaalvik & Skaalvik, 2011).

3. Professional Development Opportunities:

- Access to high-quality professional development can enhance the impact of motivation on teaching effectiveness (Desimone, 2009).

4. School Culture and Climate:

- A positive school culture that values teacher professionalism can strengthen the relationships between motivation, commitment, and effectiveness (Collie et al., 2011).

5. Autonomy and Decision-Making:

- Greater teacher autonomy can enhance the positive effects of intrinsic motivation on teaching practices (Pelletier et al., 2002).

6. Workload and Time Pressures:

- High workload and time pressures can weaken the relationship between motivation and teaching effectiveness (Fernet et al., 2012).

7.3 Contextual Factors

Broader contextual factors can also influence the relationships between teaching effectiveness, motivation, and commitment:

1. Educational Policies and Reforms:

- The nature and implementation of educational policies can moderate how motivation and commitment translate into effective teaching (Day, 2002).

2. Societal Perceptions of Teaching:

- The status of the teaching profession in society can influence the relationship between commitment and teaching effectiveness (Hargreaves, 2009).

3. Cultural Values:

- Cultural differences in how teaching is viewed and valued can affect the relationships between motivation, commitment, and effectiveness (Klassen et al., 2018).

4. Economic Conditions:

- Economic factors, such as teacher salaries and job market conditions, can influence the impact of extrinsic motivation on teaching effectiveness (Dolton & Marcenaro-Gutierrez, 2011).

5. Technological Advancements:

- The integration of technology in education can moderate how motivation and commitment influence teaching practices (Tondeur et al., 2017).

7.4 Mediating Factors

Several factors have been identified as potential mediators in the relationships between motivation, commitment, and teaching effectiveness:

1. Job Satisfaction:
 - Work motivation and professional commitment often influence teaching effectiveness through their impact on job satisfaction (Skaalvik & Skaalvik, 2011).
2. Work Engagement:
 - Higher levels of motivation and commitment can lead to greater work engagement, which in turn enhances teaching effectiveness (Bakker et al., 2008).
3. Burnout:
 - Low motivation and commitment can lead to burnout, which negatively affects teaching effectiveness (Fernet et al., 2012).
4. Instructional Practices:
 - Motivation and commitment often influence teaching effectiveness by shaping teachers' choice of instructional strategies (Thoonen et al., 2011).
5. Teacher-Student Relationships:
 - The quality of teacher-student relationships can mediate the effects of motivation and commitment on student outcomes (Roorda et al., 2011).

Relative Influence of Factor Categories on Teaching Effectiveness

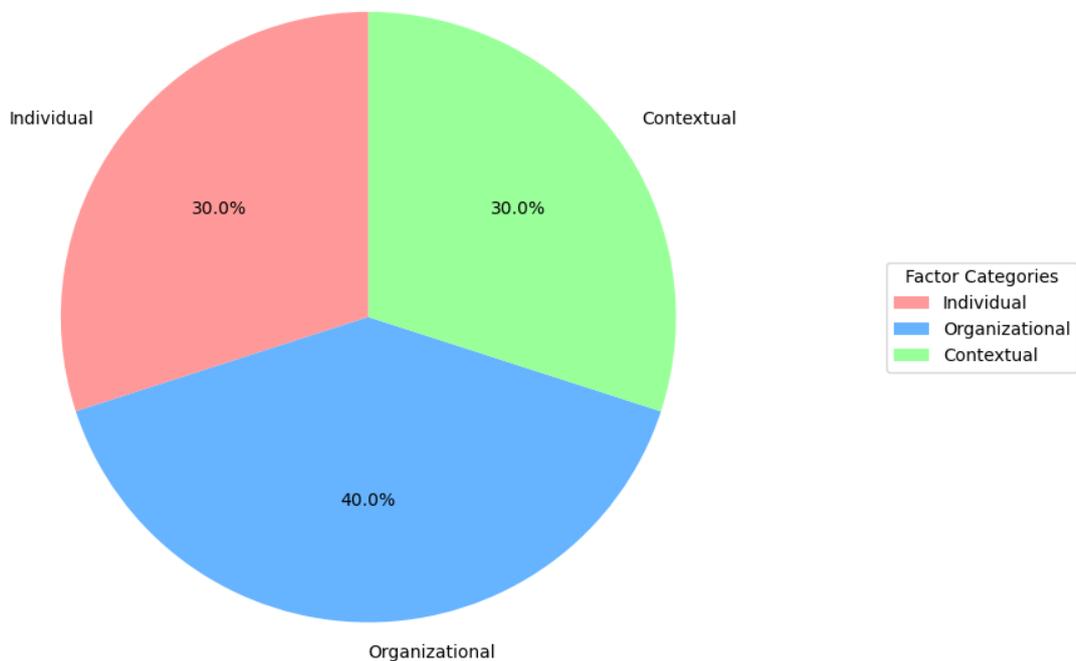


Figure 4: Relative influence of factor categories on the relationships between teaching effectiveness, work motivation, and professional commitment

7.5 Implications for Research and Practice

Understanding the complex interplay of factors influencing the relationships between teaching effectiveness, work motivation, and professional commitment has several implications for research and practice:

1. **Need for Comprehensive Models:** Researchers should develop and test more comprehensive models that account for the multiple factors influencing these relationships. These models should consider direct, indirect, and interactive effects.
2. **Longitudinal Studies:** More longitudinal research is needed to understand how these relationships evolve over time and across different career stages.
3. **Context-Specific Research:** Given the importance of contextual factors, more research is needed in diverse educational settings to understand how cultural and systemic differences impact these relationships.
4. **Mixed-Methods Approaches:** Combining quantitative and qualitative methods can provide a more nuanced understanding of how and why certain factors influence teaching effectiveness, motivation, and commitment.
5. **Intervention Studies:** There is a need for more intervention studies to test the effectiveness of strategies aimed at enhancing motivation, commitment, and teaching effectiveness.
6. **Personalized Approaches:** Recognizing the influence of individual factors suggests the need for more personalized approaches to teacher development and support.
7. **Holistic School Improvement:** The significant role of organizational factors highlights the importance of whole-school approaches to improving teaching effectiveness.
8. **Policy Considerations:** Policymakers should consider the complex interplay of factors when designing educational policies and reforms to ensure they support, rather than undermine, teacher motivation and commitment.

8. Implications for Practice

The findings from this review have several important implications for educational practice, particularly for school leaders, teacher educators, and policymakers seeking to enhance teaching effectiveness in secondary schools.

8.1 Enhancing Work Motivation

1. **Promote Autonomous Motivation:**
 - Provide opportunities for teachers to exercise autonomy in their work.
 - Offer meaningful choices in professional development activities.
 - Encourage teacher input in decision-making processes.
2. **Support Basic Psychological Needs:**
 - Foster a sense of competence through targeted professional development and constructive feedback.
 - Promote relatedness by encouraging collaborative practices and positive collegial relationships.
 - Ensure teachers have opportunities to engage in meaningful and challenging work.
3. **Align Extrinsic Rewards:**
 - Ensure that extrinsic rewards (e.g., performance-based pay) are implemented in ways that do not undermine intrinsic motivation.
 - Use non-monetary rewards such as recognition and opportunities for growth.
4. **Address Amotivation:**
 - Identify and address sources of teacher amotivation, such as excessive workload or lack of resources.
 - Provide support and interventions for teachers experiencing burnout or disengagement.

8.2 Fostering Professional Commitment

1. **Strengthen Affective Commitment:**

- Cultivate a positive professional identity among teachers.
- Highlight the meaningful impact of teaching on students and society.
- Create opportunities for teachers to connect with the broader purpose of education.
- 2. Address Continuance Commitment:
 - Provide attractive career development pathways within the teaching profession.
 - Offer competitive compensation and benefits packages.
 - Create a supportive work environment that makes teaching an attractive long-term career choice.
- 3. Nurture Normative Commitment:
 - Promote a strong ethical framework for the teaching profession.
 - Encourage teacher participation in professional associations and networks.
 - Recognize and celebrate teachers' contributions to their school and community.

8.3 Supporting Teaching Effectiveness

- 1. Provide Targeted Professional Development:
 - Offer professional development opportunities that are aligned with teachers' motivations and commitments.
 - Use a variety of formats (e.g., workshops, coaching, peer observation) to cater to different learning preferences.
- 2. Create Supportive School Cultures:
 - Foster a school climate that values continuous improvement and innovation.
 - Encourage collaborative practices and knowledge sharing among teachers.
 - Implement distributed leadership approaches that empower teachers.
- 3. Enhance Teacher Evaluation Systems:
 - Develop comprehensive teacher evaluation systems that consider multiple aspects of teaching effectiveness.
 - Use evaluation results to inform personalized professional development plans.
 - Ensure that evaluation processes are perceived as fair and supportive rather than punitive.
- 4. Address Contextual Challenges:
 - Identify and mitigate factors that hinder teaching effectiveness, such as excessive administrative tasks or inadequate resources.
 - Advocate for policies and funding that support high-quality teaching and learning environments.
- 5. Promote Teacher Well-being:
 - Implement strategies to reduce teacher stress and prevent burnout.
 - Provide access to mental health support and wellness programs.
 - Ensure reasonable workloads and adequate work-life balance.

Table 5 summarizes key strategies for enhancing teaching effectiveness through work motivation and professional commitment:

Table 5: Strategies for Enhancing Teaching Effectiveness

Area	Strategies
Work Motivation	- Promote autonomous motivation- Support basic psychological needs- Align extrinsic rewards- Address amotivation

Professional Commitment	- Strengthen affective commitment- Address continuance commitment- Nurture normative commitment
Teaching Effectiveness	- Provide targeted professional development- Create supportive school cultures- Enhance teacher evaluation systems- Address contextual challenges- Promote teacher well-being

8.4 Considerations for Implementation

When implementing strategies to enhance teaching effectiveness through work motivation and professional commitment, several considerations should be kept in mind:

1. Context Sensitivity: Strategies should be adapted to fit the specific context of each school or educational system.
2. Teacher Involvement: Involve teachers in the design and implementation of improvement initiatives to ensure buy-in and relevance.
3. Systemic Approach: Address individual, organizational, and contextual factors in a coordinated manner for maximum impact.
4. Continuous Evaluation: Regularly assess the effectiveness of implemented strategies and make adjustments as needed.
5. Long-term Perspective: Recognize that significant changes in teaching effectiveness may take time to manifest and require sustained effort.
6. Ethical Considerations: Ensure that efforts to enhance motivation and commitment do not lead to undue pressure or stress on teachers.

By considering these implications and implementing targeted strategies, educational leaders and policymakers can create environments that foster high levels of work motivation and professional commitment, ultimately leading to enhanced teaching effectiveness in secondary schools.

9. Future Research Directions

While significant progress has been made in understanding the relationships between teaching effectiveness, work motivation, and professional commitment, several areas warrant further investigation. This section outlines key directions for future research in this field.

9.1 Longitudinal Studies

1. Career Trajectory Research:
 - Conduct long-term studies tracking teachers from pre-service through various career stages to understand how motivation, commitment, and effectiveness evolve over time.
 - Investigate the factors that contribute to sustained motivation and commitment throughout a teaching career.
2. Developmental Patterns:
 - Examine how the relationships between motivation, commitment, and effectiveness change at different career stages and identify critical periods for intervention.
3. Reciprocal Effects:
 - Explore the reciprocal relationships between teaching effectiveness, motivation, and commitment over time to better understand causal mechanisms.

9.2 Contextual and Cultural Factors

1. Cross-Cultural Studies:
 - Conduct comparative studies across different cultural contexts to identify universal and culture-specific aspects of the relationships between motivation, commitment, and effectiveness.
 - Examine how cultural values and beliefs about education influence these relationships.
2. Educational Policy Impact:
 - Investigate how different educational policies and reforms impact the relationships between motivation, commitment, and teaching effectiveness.
 - Assess the long-term effects of accountability measures on teacher motivation and commitment.
3. Technology Integration:
 - Explore how the increasing integration of technology in education affects teacher motivation, commitment, and effectiveness.
 - Examine the skills and dispositions needed for effective teaching in technology-rich environments.

9.3 Measurement and Methodology

1. Improved Measures:
 - Develop and validate more comprehensive and context-sensitive measures of teaching effectiveness, work motivation, and professional commitment.
 - Explore innovative measurement approaches, such as experience sampling methods or physiological measures of motivation and engagement.
2. Mixed-Methods Research:
 - Conduct more mixed-methods studies to provide a richer understanding of the complex relationships between these constructs.
 - Use qualitative methods to explore teachers' lived experiences and perceptions of the factors influencing their motivation, commitment, and effectiveness.
3. Advanced Statistical Techniques:
 - Apply advanced statistical methods such as structural equation modeling, multilevel modeling, and latent growth curve analysis to better capture the complexity of these relationships.
 - Utilize person-centered approaches (e.g., latent profile analysis) to identify distinct patterns or profiles of motivation and commitment among teachers.

9.4 Intervention Studies

1. Targeted Interventions:
 - Design and evaluate interventions aimed at enhancing specific aspects of work motivation or professional commitment.
 - Investigate the differential effects of interventions on teachers with varying levels of motivation and commitment.
2. School-Wide Interventions:
 - Develop and test comprehensive school-wide interventions that address multiple factors influencing teaching effectiveness, motivation, and commitment.
 - Examine the role of school leadership in implementing and sustaining such interventions.
3. Professional Development Research:
 - Investigate the characteristics of professional development programs that effectively enhance both teacher motivation and teaching effectiveness.

- Explore the potential of personalized professional development approaches based on individual teacher profiles of motivation and commitment.

9.5 Emerging Areas of Interest

1. Teacher Well-being and Resilience:

- Examine the relationships between teacher well-being, resilience, motivation, commitment, and teaching effectiveness.
- Investigate strategies for promoting teacher well-being and resilience in challenging educational contexts.

2. Collective Teacher Efficacy:

- Explore how collective teacher efficacy interacts with individual motivation and commitment to influence teaching effectiveness.
- Investigate the processes through which collective efficacy develops and its impact on school-wide teaching quality.

3. Motivational Profiles:

- Identify distinct motivational profiles among teachers and examine how these profiles relate to professional commitment and teaching effectiveness.
- Investigate how motivational profiles change over time and in response to different contextual factors.

4. Neuroscience of Teacher Motivation:

- Utilize neuroscientific methods to investigate the neural correlates of teacher motivation and commitment.
- Explore how neuroscience insights can inform strategies for enhancing teacher motivation and effectiveness.

5. Impact of Societal Changes:

- Examine how broader societal changes (e.g., changing student demographics, technological advancements, global crises) impact teacher motivation, commitment, and effectiveness.
- Investigate the skills and dispositions needed for effective teaching in rapidly changing educational landscapes.

Table 6: Priority Areas for Future Research

Research Area	Key Questions
Longitudinal Studies	- How do motivation, commitment, and effectiveness evolve over a teaching career?- What factors contribute to sustained motivation and commitment?
Contextual and Cultural Factors	- How do cultural differences influence the relationships between motivation, commitment, and effectiveness?- What is the impact of educational policies on these relationships?
Measurement and Methodology	- How can we develop more comprehensive and context-sensitive measures?- What insights can mixed-methods approaches provide?

Intervention Studies	- What types of interventions are most effective in enhancing motivation, commitment, and teaching effectiveness?- How can interventions be tailored to individual teacher needs?
Emerging Areas	- How do teacher well-being and resilience relate to motivation, commitment, and effectiveness?- What is the role of collective teacher efficacy in enhancing teaching quality?

By pursuing these research directions, scholars can contribute to a more nuanced and comprehensive understanding of the complex relationships between teaching effectiveness, work motivation, and professional commitment. This knowledge will be crucial for developing evidence-based strategies to enhance teaching quality and support teacher success in secondary education.

10. Conclusion

This comprehensive review has examined the intricate relationships between teaching effectiveness, work motivation, and professional commitment among secondary school teachers. Through a synthesis of theoretical frameworks and empirical findings, several key conclusions emerge:

1. **Interrelated Constructs:** Teaching effectiveness, work motivation, and professional commitment are closely interrelated constructs that significantly influence each other and collectively impact educational outcomes.
2. **Multifaceted Relationships:** The relationships between these constructs are complex and multifaceted, influenced by a wide range of individual, organizational, and contextual factors.
3. **Importance of Autonomous Motivation:** Autonomous forms of motivation, particularly intrinsic motivation and identified regulation, show the strongest positive associations with teaching effectiveness and professional commitment.
4. **Role of Affective Commitment:** Among the components of professional commitment, affective commitment appears to have the strongest positive relationship with teaching effectiveness and work motivation.
5. **Contextual Influences:** The strength and nature of the relationships between teaching effectiveness, motivation, and commitment can vary significantly across different educational contexts and cultures.
6. **Reciprocal Effects:** There is evidence of reciprocal relationships between these constructs, with teaching effectiveness potentially influencing motivation and commitment, and vice versa.
7. **Mediating Factors:** Several factors, including job satisfaction, work engagement, and instructional practices, appear to mediate the relationships between motivation, commitment, and teaching effectiveness.
8. **Implications for Practice:** Enhancing teaching effectiveness requires a holistic approach that addresses work motivation and professional commitment through targeted strategies at individual, organizational, and systemic levels.
9. **Need for Comprehensive Models:** More comprehensive theoretical models are needed to fully capture the complexity of these relationships and guide future research and practice.
10. **Future Research Directions:** Longitudinal studies, cross-cultural research, improved measurement approaches, and intervention studies are among the priority areas for advancing our understanding of these relationships.

The findings of this review have significant implications for educational policy and practice. To enhance teaching effectiveness in secondary schools, it is crucial to create environments that foster high levels of autonomous motivation and affective professional commitment. This requires a multi-faceted approach that addresses:

- Individual teacher needs and characteristics
- School organizational factors and leadership practices
- Broader educational policies and societal contexts

Furthermore, the complex nature of these relationships underscores the need for personalized and context-sensitive approaches to teacher development and support. One-size-fits-all strategies are unlikely to be effective given the diverse motivational profiles and commitment levels of teachers.

As education systems worldwide face ongoing challenges and transformations, understanding and leveraging the relationships between teaching effectiveness, work motivation, and professional commitment becomes increasingly critical. By fostering highly motivated and committed teachers, we can enhance the quality of teaching in secondary schools and, ultimately, improve student learning outcomes.

Future research in this field has the potential to significantly advance our understanding of effective teaching and inform evidence-based practices for supporting teacher success. As we continue to unravel the complexities of these relationships, we move closer to creating educational environments that bring out the best in teachers and students alike.

In conclusion, the interplay between teaching effectiveness, work motivation, and professional commitment represents a rich and vital area of inquiry in educational research. By continuing to explore and understand these relationships, we can work towards creating more effective, satisfying, and sustainable teaching careers, ultimately benefiting students, schools, and society as a whole.

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