Systematic literature review on factors influencing teacher motivation

Nirumala Rothinam[1*], Samikkanu Jabamoney Ishak Samuel[2], Ramachandran Vengasalem[3], Sivabala Naidu[4]

[1,2,3,4]School of Postgraduates, Faculty of Social Sciences, Quest International University, Ipoh Perak, Malaysia;
nirumala.rothinam@qiu.edu.my (N.R.) samikkanu.jabamoney@qiu.edu.my (S.J.I.S.) rama.vengra@qiu.edu.my (R.V.)
sivabala.naidu@qiu.edu.my (S.N.).

Abstract: Teacher motivation is one of the most influential factors that affect educational results and have a direct impact on the teachers themselves as well as the students. The purpose of this systematic review is to synthesize the findings of empirical work on teacher motivation drawing only literature that was published between the years 2000 and 2024. The study was designed with the help of the PRISMA 2020 guidelines to ensure that we capture all the possible studies related to the topic of interest and, finally, included 65 articles that met the eligibility criteria. The analysis of these researches shows that the teacher motivation is a complex package of intrinsic and extrinsic factors. Of the most important aspect is self-efficacy as a perception of a teacher's ability to succeed, besides job satisfaction which includes teacher's satisfaction with different features of their work. The findings of this review have significant implications to the formulation of policies and strategies in education. Therefore, policies that are put in place to increase motivation of the teaching workforce will see the staff become more committed and productive and consequently enhancing the quality of education given to the learners. The results of this study support the need to shift the emphasis to improving the educational context with a view of raising motivation of teachers.

Keywords: *Motivation, Professional development, Self-efficacy, Teachers' job satisfaction.*

1. Introduction
1.1. Rationale

The motivation of the teacher is considered within the scope of the general approach to the understanding of students' achievement, and success of the teacher and learners. The teachers' motivation is likely to result into high student teacher interaction, use of new methods of teaching and the desire to update ones' knowledge and skills (Baker et al., 2023; Collie, Shapka & Perry, 2012). In the subsequent works, they found that the motivated teachers raise the achievement of their students by developing positive learning environments and, thus, involving the students in the learning process (Hattie, 2009; Klassen & Chiu, 2010).

Hence, there is the need for elaboration of motivation among the teaching profession for them to enhance the creation of environment which will enhance achievement and retention of learners. According to Skaalvik and Skaalvik (2010), motivation can have an impact on the school culture in helping in the collaboration and improving the expectations of every level of the school.

Further, the high and highly valued teachers are retained in the classrooms thus reducing the turnover rates and this in turn results to the provision of quality education to the students (Ingersoll, 2001). Even though the factors influencing teachers' motivation have been described in many works, the authors have noted that as of now no systematic review of the literature that focused on the relationship between motivators and contextual factors within educational institutions could be identified (Watt & Richardson, 2007). Current research has also indicated that flow of motivation in teachers is influenced by factors including leadership which is sourced from the school head, commitment of the staff, professional development opportunities and quality interpersonal relations with colleagues (Day et al.,

2010; Leithwood & Jantzi, 2000). Understanding the determinants of motivation for teachers will assist policymakers, school leaders and other teachers to implement measures that maintain and enhance teachers' motivation because such measures enhance education performance outcomes. For instance, teachers' professional development that is to some extent based on their needs and which utilizes data to support change has been linked with motivation as well as improvement in instructional practice standards (Guskey, 2002).

It is important to determine which of the variables significantly influence teacher motivation based on which recommendations for the identification of research priorities, the definition of work environments, and the organization of structural changes and the improvement of general problems and prospects of the education system can be made (Friedman & Farber, 1992). Also, there must be more interconnections from interdisciplinary psychology such as Self-Determination Theory with reference to intrinsic and extrinsic motivation to help deepen the understanding of teachers' experience and concern. Many researchers agree that to reach high levels of motivation, three factors are effective – autonomy, competence and relatedness and the analysis of these three factors can be helpful in the development of the policies and practices that can influence the motivation of the teachers in their work. Thus, comprehensive, and systematic analysis of teacher motivation and all the factors that may influence it is likely to lead to better prediction of the outcomes and improvements in the implementation of the interventions and educational measures. There is need to contribute to the current literature on empirical research on teacher motivation with a view of having a more effective teaching force that can foster student learning and achievement.

1.2. Objectives

Since this review does not involve human or animal subjects, this research protocol was need registered before undertaking the review. The current systematic review and meta-analysis were performed based on the preferred reporting items for systematic reviews and meta-analyses (PRISMA) check-list. The purpose of this systematic review is to search for, assess, and summarize the determinants of teacher motivation in contexts. Specifically, this review seeks to:
   i. Explore the contextual factors, such as school climate, self-efficacy, school leadership and professional development, on teacher motivation levels.
   ii. Provide clear implications for educational policy and practice based on the evidence collected from the literature.

2. Methods

2.1. Eligibility Criteria

This review included empirical studies that are available online for public access which investigated factors influencing teacher motivation, and eligible studies were limited to those published from 2000 to 2024, written in English.

2.2. Information Sources

To ensure a comprehensive review, systematic searches was conducted in multiple academic databases, as displayed in Table 1;

Table 1.
Database.

	Database	
i.	Education resources information center (ERIC)	Good for many of the educational studies.

ii.	PsycINFO	Useful for articles related to psychology, motivation, and teacher effectiveness.
iii.	JSTOR	Often hosts journal articles across a variety of disciplines, focusing on educational research.
iv.	Springer link	Provides access to a wide range of educational and psychological literature.
v.	Taylor & Francis online	This is where some of the listed articles are published.
vi.	Wiley online library	A source for educational and psychological research articles.
vii.	Google scholar	It searches the same kinds of scholarly books, articles, and documents that you search in the library's catalogue and databases.

2.3. Search Strategy

The following set of terms was used to identify as many documents related to teacher motivation as possible. These were terms like 'teacher motivation', 'intrinsic motivation', 'extrinsic motivation', 'self-efficacy', 'job satisfaction', 'working conditions', 'professional development', and 'school climate'. The filters used to arrive at the above results included year of publication between 2000 and 2024 and language of publication being English. Figure 1 displays the distribution of articles according to year published.
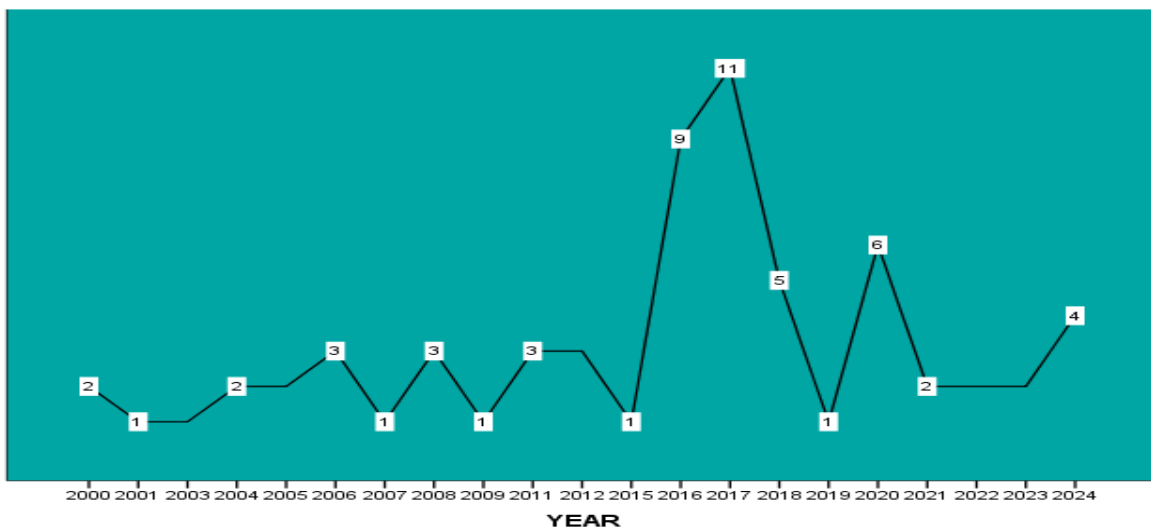
Figure 1.
Distribution of articles based on the year of publication.

2.4. Selection Process

The selection process was a multi-stage one. At first, all the authors independently assessed the titles and the abstracts of the studies against the predetermined inclusion and exclusion criteria. Conflicts of interest with respect to inclusion/exclusion criteria were discussed and settled to the best of the authors' knowledge. After this, the reviewers performed full text assessments of the identified potentially eligible studies to arrive at the final lists.

2.5. Data Collection Process

Data extraction was done by reviewers in a systematic way using a data extraction format to identify some basic information from each study such as sample size, geographical location, methodology used and primary findings on teacher motivation. To ensure that issues of data extraction

were aligned, any discrepancies were discussed between the two researchers. This way the analysis of the literature was done both qualitatively as well as quantitatively in a very systematic manner.

2.6. Data Items
The review focused on extracting the following key data items:

i.	Primary outcomes:	Factors influencing teacher motivation categorized into intrinsic (e.g., personal fulfilment, passion for teaching) and extrinsic (e.g., salary, recognition, working conditions) motivators.
ii.	Self-efficacy:	The impact of teachers' beliefs in their capabilities to influence student learning.
iii.	Job satisfaction:	The overall satisfaction levels of teachers with their roles.
iv.	Working conditions:	Contextual factors such as class size, resources, and administrative support.
v.	Professional development:	Opportunities for teachers to grow professionally.
vi.	School climate:	The environment in which teachers operate, including support from colleagues and school leadership.

Furthermore, other information that was captured included, the type of study, the number of participants, and the year of publication. Some gaps and information missing were identified, and hence, the conclusions were made from the context of the available studies.

2.7. Risk of Bias Assessment
Each one of the studies included in the review was analysed for risk of bias using the Cochrane risk of bias tool which includes factors such as selection bias, performance bias, detection bias, attrition bias, and reporting bias. All the measures were applied separately by three researchers and the results were summarized in a comprehensive table. Since this is not a critique of medical or strictly scientific work, the emphasis on risk bias is on the instrument as well as the number of subjects.

2.8. Certainty Assessment
To evaluate the quality of evidence in relation to any of the reported outcomes, the review used the GRADE approach to provide a systematic approach of assessing the quality of evidence for the given comparison. The articles methodology and key words used in this study are summarized in the table below. The specific themes and sub themes are thus brought together and presented in the overall analysis.

2.9. Ethics Statement
Since all the analyses were done on previously published data, ethical approval was not needed for this analysis.

3. Results
3.1. Study Selection
The review gave a total of 158 articles in the initial search which was done systematically. For the final screening, out of the 86 articles which were assessed based on the titles and abstracts, 65 articles were considered for the systematic review. The following is a flowchart of the selection process that has been described above:
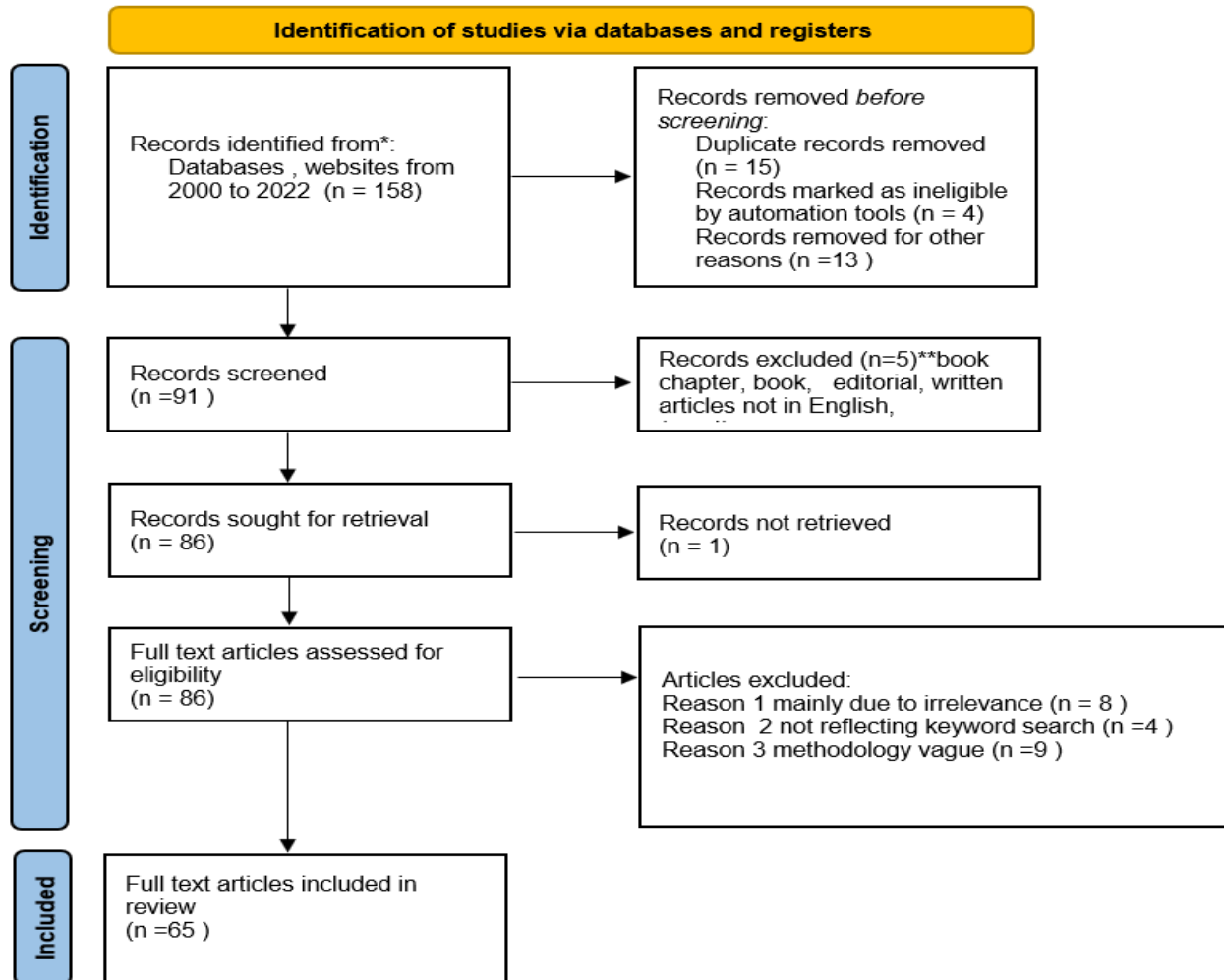
Figure 2.
PRISMA flow diagram of study selection.

3.2. Study Characteristics

In this study, the characteristics of the included studies are summarised in a comprehensive table that contains details such as sample size, methodologies utilized, and key findings regarding teacher motivation. Table 2 serves as an essential resource for understanding the broader landscape of research conducted in this area.

Below is the comprehensive table of the articles reviewed:

Table 2.
Distribution of articles reviewed.

No	Author	Sampling	Instrument	Keywords	Risk bias
1.	Addison, R., & Brundrett, M. (2008). motivation and demotivation of teachers in primary schools: The challenge of change. Education 3–13, 36(1), 79-94.	69 teachers	Interviews survey	Identified intrinsic motivation.	Small sample size; potential subjectivity in interviews.
2.	Adesina, O. J., Raimi, S. O., Bolaji, O. A., & Adesina, A. E. (2016). Teachers' attitude, years of teaching experience and self-efficacy as determinants of teachers' productivity in teachers' professional development programme in Ibadan Metropolis, Oyo State, Nigeria. *Journal of Emerging Trends in Educational Research and Policy Studies*, 7(3), 204-211.	350 teachers	i. Teachers' Attitude to Teaching Scale (TATS); ii. Teachers' Self-efficacy Scale (TSES); iii. Teachers' Productivity in PTDP Checklist (TPPC)	Teachers' attitude, teaching experience and self-efficacy, teachers' productivity, teachers' professional development programme	Considerable data, 3 instruments /Potential empirical data
3.	Afshar, H. S., & Doosti, M. (2016). Investigating the impact of job satisfaction/dissatisfaction on Iranian English teachers' job performance. *Iranian Journal of Language Teaching Research, 4*(1), 97-115.	210 practicing Iranian English teachers	Iranian EFL Teacher Motivation and Job Satisfaction Questionnaire (IEFLTJSQ),	job satisfaction/dissatisfaction job performance.	Considerable data but self reported
4.	Alexander, C., Wyatt-Smith, C., & Du Plessis, A. (2020). The role of motivations and perceptions on the retention of inservice teachers. *Teaching and Teacher Education, 96*, 103186.	1165 teachers,	Factors Influencing Teaching Choice (FIT-Choice) scale,	teacher motivations self-perceptions, negative social perceptions, gender	Considerable sample, although self-reported data may bias results
5.	Alonso-Tapia, J., & Ruiz-Díaz, M. (2022). School Climate and Teachers Motivational Variables: Effects on Teacher Satisfaction and Classroom Motivational Climate Perceived by Middle School Students. A Cross-cultural Study. *Psicología Educativa*.	441 teachers 1946 students	survey	motivational knowledge, teachers' focus on students' grades and emotional needs, and expectancies.	Considerable sample, although self-reported data may bias results

	Revista de los Psicólogos de la Educación, 28(2), 151-163.			
6.	Antoniou, A. S., Geralexis, I., & Charitaki, G. (2017). Special educators' teaching self-efficacy determination: a quantitative approach. *Psychology*, 8(11), 1642-1656.	200 Special Educators,	Teachers' Sense of Efficacy Scale [TSES]	Teacher's Self-Efficacy, Instruction Strategies, Class Management, Student Involvement, Burn Out	1 instrument , considerable data
7.	Averill, R. M., & Major, J. (2020). What motivates higher education educators to innovate? Exploring competence, autonomy, and relatedness–and connections with wellbeing. *Educational Research*, 62(2), 146-161.	13 expert tertiary educators	Interviews Self-Determination Theory:	Self-Determination Theory	Small sample size; potential subjectivity in interviews.
8.	Barnett, K., & McCormick, J. (2003). Vision, relationships and teacher motivation: A case study. Journal of Educational Administration, 41(1), 55-73.	Four principals and 11 randomly selected classroom teachers	Case study Interview survey	Vision and relationships significantly enhance teacher motivation.	Small sample; case study may lack generalizability.
9.	Barni, D., Danioni, F., & Benevene, P. (2019). Teachers' self-efficacy: The role of personal values and motivations for teaching. *Frontiers in psychology, 10*, 1645.	227 teachers	The Portrait Values Questionnaire (PVQ) (Schwartz et al., 2001;	teachers, self-efficacy, values, motivations for teaching, well-being	Self-reported
10.	Blackburn, J. J., Bunchm, J. C., & Haynes, J. C. (2017). Assessing the Relationship of Teacher Self-Efficacy, Job Satisfaction, and Perception of Work-Life Balance of Louisiana Agriculture Teachers. *Journal of Agricultural Education, 58*(1), 14-35.	105 teachers	Teacher's Sense of Efficacy Scale (TSES) Brayfield-Rothe (1951) Job Satisfaction Index (JSI). the teachers' perceptions of work-life balance	agricultural education; teacher self-efficacy; job satisfaction; work-life balance	3 instruments provide promising relationships
11.	Blase, J., & Blase, J. (2000). Effective instructional leadership: Teachers'	800 teachers	Inventory of Strategies Used by Principals to	supportive and transformational	Considerable sample, although

	perspectives on how principals promote teaching and learning in schools. *Journal of educational administration, 38*(2), 130-141.		Influence Classroom Teaching (ISUPICT),	leadership, teacher motivation.	self-reported data may bias results.
12.	Burić, Irena, and Angelica Moè. "What makes teachers enthusiastic: The interplay of positive affect, self-efficacy and job satisfaction." *Teaching and teacher education* 89 (2020): 103008	536 (402 female) Croatian high-school teachers,	Teacher self-efficacy scale job satisfaction scale teacher enthusiasm scale	Teachers experienced enthusiasm positive affect self-efficacy job satisfaction	Large data but self-reported
13.	Butler, R. (2007). Teachers' achievement goal orientations and associations with teachers' help seeking: Examination of a novel approach to teacher motivation. Journal of Educational Psychology, 99(2), 241-252.	320 teachers	Surveys	teachers' goal orientations and help-seeking.	Adequate sample; survey limitations may affect results.
14.	Canrinus, E. T., Helms-Lorenz, M., Beijaard, D., Buitink, J., & Hofman, A. (2012). Self-efficacy, job satisfaction, motivation and commitment: Exploring the relationships between indicators of teachers' professional identity. European Journal of Psychology of Education, 27(1), 115-132.	1, 214 teachers	Job satisfaction index (ASI) Van der Ploeg and Scholte (2003) Occupational commitment Based on Meyer et al. (1993) Self-efficacy Classroom and school context teacher selfefficacy scale (CSC teacher self-efficacy scale); Friedman and Kass (2002)	teachers' professional identity, which has been lacking.	Large sample enhances reliability; self-report bias possible.
15.	Collie, R. J., Shapka, J. D., & Perry, N. E. (2012). School climate and social–emotional learning: Predicting teacher stress, job satisfaction, and	664 teachers	Teacher Stress Inventory (TSI, Boyle et al., 1995) The Teachers' Sense of	School climate, teacher stress and job satisfaction.	Adequate sample; survey methods may introduce biases.

	teaching efficacy. Journal of Educational Psychology, 104(4), 1189-1204.		Efficacy Scale (Job Satisfaction Survey (JSS, Spector, 1997)		
16.	Colson, T., Sparks, K., Berridge, G., Frimming, R., & Willis, C. (2017). Pre-service teachers and self-efficacy: A study in contrast. *Discourse and Communication for Sustainable Education, 8*(2), 66-76.	144 teaching candidates	Teachers' Sense of Efficacy Scale (TSES)	Pre-service teachers, self-efficacy	Considerable data, 1 instrument lacks empirical data on other aspect
17.	De Simone, S., Cicotto, G., & Lampis, J. (2016). Occupational stress, job satisfaction and physical health in teachers. *European Review of Applied Psychology, 66*(2), 65-77.	565 teachers	Brief Overall Job Satisfaction measure II physical symptoms adapted from Spector and Jex's (1998)	Work stressors Job satisfaction Physical symptoms Teachers Action research	Considerable data, 1 instrument /Potential empirical data
18.	Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. Psychological Inquiry, 11(4), 227-268.	N/A	Theoretical analysis	Discussed self-determination theory and its implications for teacher motivation.	Theoretical framework; lacks empirical data to support claims.
19.	Demirdağ, S. (2015). Assessing teacher self-efficacy and job satisfaction: Middle school teachers. *Journal of Educational and Instructional Studies in the World, 5*(3), 35-43.	208 middle school teachers in USA.	Teachers' Sense of Efficacy Scale (TSES) and the Job Satisfaction Survey (JSS).	Assessing teacher self-efficacy and job satisfaction: Middle school teachers.	Data considerable
20.	Dörnyei, Z., & Ushioda, E. (2021). Teaching and researching motivation. Routledge.	N/A	Literature review	motivation, teaching practice.	useful resources, including relevant websites, key reference works and an online repository of tools and instruments for researching language learning motivation

21.	Fathi, J., & Savadi Rostami, E. (2018). Collective teacher efficacy, teacher self-efficacy, and job satisfaction among Iranian EFL Teachers: The mediating role of teaching commitment. *Teaching English as a Second Language Quarterly (Formerly Journal of Teaching Language Skills)*, 37(2), 33-64.	312 teachers	Commitment to teaching was measured through a four-item scale validated by Ware and Kitsantas (2007). The Teachers' Sense of Efficacy Scale (TSES) Job satisfaction was also assessed by two items from Carpara et al. (2003)	Collective teacher efficacy, teacher self-efficacy, job satisfaction, teaching commitment, EFL teachers	Considerable data/ self-reported
22.	Fernet, C., Guay, F., Senécal, C., & Austin, S. (2012). Predicting intraindividual changes in teacher burnout: The role of perceived school environment and motivational factors. Teaching and Teacher Education, 28(4), 514-525.	806 French-Canadian teachers	Work Tasks Motivation Scale for Teachers Classroom and School Context Teacher Self-Efficacy Scale Job Content Questionnaire (JCQ; Karasek, 1985), Supervisory Style Inventory Maslach Burnout Inventory	school environment factors, teacher burnout.	Considerable sample, although self-reported data may bias results.
23.	Flores, M. A., & Day, C. (2006). Contexts which shape and reshape new teachers' identities: A multi-perspective study. Teaching and Teacher Education, 22(2), 219-232.	14 new teachers	Interviews	contexts, teachers' identities.	Context-specific findings; may lack broader relevance.
24.	Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. Journal of Organizational Behavior, 26(4), 331-362.	100 empirical studies.	Literature review	self-determination theory, work motivation.	Theoretical basis; lacks empirical focus.
25.	Guarino, C. M., Santibañez, L., & Daley, G. A. (2006). Teacher recruitment and retention: A review of the recent empirical literature.	100 empirical studies.	Literature review	teacher recruitment, retention.	Review limits; quality of selected studies varies.

	Review of Educational Research, 76(2), 173-208.				
26.	Hargreaves, A. (2000). Mixed emotions: Teachers' perceptions of their interactions with students. Teaching and Teacher Education, 16(8), 811-826.	53 teachers	Interviews	teachers' mixed emotions, interactions with students.	potential bias from self-reported emotions.
27.	Ingersoll, R. M., & Smith, T. M. (2003). The wrong solution to the teacher shortage. Educational Leadership, 60(8), 30-33.	N/A	Secondary data analysis	school conditions, teacher retention and motivation.	Based on available data; may not capture all of teacher experiences.
28.	Iwu, C. G., Ezeuduji, I. O., Iwu, I. C., Ikebuaku, K., & Tengeh, R. K. (2018). Achieving quality education by understanding teacher job satisfaction determinants. *Social sciences*, 7(2), 25.	456 teachers	questionnaire - extracted from many studies	teacher job satisfaction; teacher morale; pass rate; throughput rate; basic education; Nigeria; teacher motivation	Questionnaire variables extracted from many studies
29.	Kasalak, G., & Dagyar, M. (2020). The relationship between teacher self-efficacy and teacher job satisfaction: A meta-analysis of the teaching and learning international survey (TALIS). *Educational Sciences: Theory and Practice*, 20(3), 16-33.	102 independent data belonging to 50 countries 426,515 teachers	Meta analysis	teachers' self-efficacy and job satisfaction	Large data
30.	Katel, K. P. (2023). Teachers' Motivational Factors and Student Learning Achievements. *Solukhumbu Multiple Campus Research Journal*, 5(1), 1-14.	5 teachers	unstructured interview	Motivational factors, Achievements, Teaching profession, Students' performance	Small data, less empirical focus
31.	Kelchtermans, G. (2005). Teachers' emotions in educational reforms: Self-understanding, vulnerable commitment and micropolitical literacy. Teaching and Teacher	NA	narrative-biographical work with teachers	understanding teachers' emotions, vulnerability, identity, and responses to reforms.	Limited sample size; qualitative bias i

	Education, 21(8), 995-1006.			
32.	Kocabas, I. (2009). The effects of sources of motivation on teachers' motivation levels. Education, 129(4), 724-733.	225 teachers	Surveys -authors'	Found varying sources impacting teacher motivation levels.	Self-reported data results may lack generalizability.
33.	Lambersky, J. (2016). Understanding the human side of school leadership: Principals' impact on teachers' morale, self-efficacy, stress, and commitment. *Leadership and Policy in Schools, 15*(4), 379-405.	20 teachers (13 females, seven males),	45–60-minute semi-structured interviews—	teacher morale, burnout, stress, commitment, and self- and collective efficacy.	Small data,
34.	Lazarides, R., Buchholz, J., & Rubach, C. (2018). Teacher enthusiasm and self-efficacy, student-perceived mastery goal orientation, and student motivation in mathematics classrooms. Teaching and Teacher Education, 69, 1-10.	803 students in grades 9 and 10 (53.3% girls) and teachers (N = 41; 58.5% men).	adapted version of the Teacher's Sense of Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001). Teachers' enthusiasm for teaching mathematics and for the subject itself was assessed with two established scales based on Kunter et al. (2008),	Teacher enthusiasm impacts student motivation studied.	Focus on student perspective; lacks teacher input.
35.	Leithwood, K., & Beatty, B. (2008). Leading with teacher emotions in mind. Corwin Press.	N/A	Literature review	Leadership in the context of teacher emotions discussed.	Review nature may limit applicability.
36.	Li, M., Wang, Z., Gao, J., & You, X. (2017). Proactive personality and job satisfaction: The mediating effects of self-efficacy and work engagement in teachers. *Current Psychology, 36*(1), 48-55.	352 teachers (194 females and 158 males)	Minnesota Job Satisfaction Questionnaire short-form Teachers' Self-Efficacy Scale (TSES) Utrecht Work Engagement Scale (UWES)	Proactive personality. Self-efficacy. Work engagement. Job satisfaction	Large data,3 instrument, potential outlook on all keywords

37.	Mahler, D., Großschedl, J., & Harms, U. (2017). Opportunities to learn for teachers' self-efficacy and enthusiasm. *Education Research International, 2017*(1), 4698371.	134 biology teachers	Teachers' Self-Efficacy and Enthusiasm survey	teachers' self-efficacy and enthusiasm.	
38.	Mertler, C. A. (2016). Should I stay or should I go? Understanding teacher motivation, job satisfaction, and perceptions of retention among Arizona teachers. *International Research in Higher Education, 1*(2), 34–45.	9,053 teachers	The Teacher Motivation, Job Satisfaction, and Retention Survey	teacher motivation, job satisfaction, and perceptions of retention	Large data,
39.	Mo, J., & Morris, G. (2024). Investigating the employment motivation, job satisfaction, and dissatisfaction of international high school teachers in China: the impact of the COVID-19 pandemic. *Frontiers in Psychology, 15,* 1271604.	4 teachers	interviewing the four participants in English on an individual basis.	school's reputation, values, salary, environment, and chances for career development	Small data, less empirical focus
40.	Nasiri, T. (2016). Evaluation of the relationship between hardiness and selfefficacy with job satisfaction of high school teachers in the county of shahriar. *International Journal of Humanities and Cultural Studies, 2471,* 2479.	302 (121 males and 181 females)	Kobasa personal outlook evaluation questionnaire (1984) with 50 items, self-efficacy questionnaire of Scherrer and colleagues (1982) the Minnesota job satisfaction questionnaire (1977)	hardiness, self-efficacy, job satisfaction, high school and pre-university teachers.	Large data,3 instrument, potential outlook on all keywords
41.	Nyenyembe, F. W., Maslowski, R., Nimrod, B. S., & Peter, L. (2016). Leadership styles and teachers' job satisfaction in Tanzanian public secondary schools. *Universal Journal of Educational Research, 4*(5), 980-988.	180 teachers	Elementary Teachers Perception of Job Satisfaction and Retention" questionnaire Multifactor Leadership Questionnaire (MLQ)	Leadership styles and teachers' job satisfaction	Large data, self-reported 2 instruments

42.	Ortan, F., Simut, C., & Simut, R. (2021). Self-efficacy, job satisfaction and teacher well-being in the K-12 educational system. *International journal of environmental research and public health, 18*(23), 12763.	658 teachers	Survey-designed by authors	self-efficacy, promotion, positive student behavior, and working conditions have significant effects on job satisfaction.	Considerable sample, although self-reported data may bias results.
43.	Ortan, F., Simut, C., & Simut, R. (2021). Self-efficacy, job satisfaction and teacher well-being in the K-12 educational system. *International journal of environmental research and public health, 18*(23), 12763.	461 teachers	Surveys	Identified factors contributing to job satisfaction among teachers in Cyprus.	Large sample enhances reliability; cultural specificity noted.
44.	Perdana, I., Ishak, R. B., & binti Mansor, M. (2023). Determinants of Intrinsic Motivation in Private School Teachers in South Kalimantan: an Empirical Analysis Based on Herzberg's Motivator Factor Theory. *Jurnal Syntax Transformation, 4*(12), 216-226.	335 teachers.	Survey Research on Herzberg's Theory.	Aspects of external Motivation, External Motivation, Herzberg's Theory, Survey Research	Large data although self-reported
45.	Rahravan, N., Sanaei, A., & Sanaei, E. (2024). An investigation into relationship between teacher's motivations, teacher's self-efficacy & good teachers. International Journal of Humanities Volume 8, № 1, 2024, 38-58 and Social Development Research DOI: 10.30546/2523-4331.2024.8.1.038	100 were teachers & 50 students	teacher's motivation & teachers self- efficacy questionnaire, completed good teacher's questionnaire.	motivation and self-efficacy	Considerable data for teachers but . irrelevant data from students
46.	Reaves, S. J., & Cozzens, J. A. (2018). Teacher perceptions of climate, motivation, and self-efficacy: Is there really a connection. *Journal of Education and Training Studies, 6*(12), 48-67.	204 participating teachers	the Safe and Supportive School Questionnaire and Attitude Toward Teaching Survey	school climate, culture, teachers‟ perceptions, motivation, self-efficacy, instructional leadership, safety, education reform	2 instruments provide promising relationships

47.	Roness, D. (2011). Still motivated? The motivation for teaching during the second year in the profession. Teaching and Teacher Education, 27(3), 628-638.	17 teachers	Interviews	Explored motivations for teaching during the second year.	Very small sample; limits generalizability.
48.	Sahin, H. (2017). Emotional Intelligence and Self-Esteem as Predictors of Teacher Self-Efficacy. *Educational Research and Reviews, 12*(22), 1107-1111.	212 pre-service teachers 141 females and 71 males	The teacher self-efficacy scale The emotional intelligence scale-short form (TEQue-SF) The Rosenberg self-esteem scale	Teacher self-efficacy, emotional intelligence, self-esteem.	Considerable data, 3 instruments /Potential empirical data
49.	Sahito, Z., & Vaisanen, P. (2017). Effect of Time Management on the Job Satisfaction and Motivation of Teacher Educators: A Narrative Analysis. *International Journal of Higher Education, 6*(2), 213-224.	40 teachers	semi-structured interviews	Time Management on the Job Satisfaction and Motivation	Small data, self-reported
50.	Shikalepo, E. E. (2020). The role of motivational theories in shaping teacher motivation and performance: A Review of Related literature. *International Journal of Research and Innovation in Social Science (IJRISS), 4.*	NA	Review	Goal-setting theory, motivation, teacher motivation, teacher performance, motivational theories.	Literature review, less empirical focus
51.	Sinclair, C., Dowson, M., & McInerney, D. M. (2006). Motivations to teach: Psychometric perspectives across the first semester of teacher education. Teachers College Record, 108(6), 1132-1154.	98 first-year preservice teachers	Modified Orientations to Teach Survey (MOTS)	Studied motivation to teach and psychometric aspects.	Student perspective; lacks teacher insights.
52.	Skaalvik, E. M., & Skaalvik, S. (2011). Teacher job satisfaction and motivation to leave the teaching profession: Relations with school	2569 Norwegian	Surveys	Found that teacher self-efficacy and job satisfaction significantly predict teacher motivation	Large sample size enhances validity; self-report data may still introduce

	context, feeling of belonging, and emotional exhaustion. Teaching and Teacher Education, 27(6), 1029-1038.			and burnout.	bias.
53.	Stankovska, G., Angelkoska, S., Osmani, F., & Grncarovska, S. P. (2017). Job Motivation and Job Satisfaction among Academic Staff in Higher Education. *Bulgarian Comparative Education Society.*	100 full-time academic staff	Job Satisfaction Survey- JSS by Paul Specter Job Motivation Questionnaire (JMQ)	Job Motivation, Job Satisfaction	Reasonable data, 3 instruments /Potential empirical data
54.	Thoonen, E. E. J., Sleegers, P. J. C., Oort, F. J., Peetsma, T. T. D., & Geijsel, F. P. (2011). How to improve teaching practices: The role of teacher motivation, organizational factors, and leadership practices. Educational Administration Quarterly, 47(3), 496-536.	502 teachers	Surveys	Explored improving teaching practices through motivation.	Large sample; effective survey method, potential for biases.
55.	Troesch, L. M., & Bauer, C. E. (2017). Second career teachers: Job satisfaction, job stress, and the role of self-efficacy. *Teaching and Teacher Education*, 67, 389-398.	400 participants	the scale job stress ("Berufliche Belastung") by Enzmann and Kleiber (1989).	Motivation, teachers, job satisfaction, job stress	Instrument can be biased as not reflecting academic setting completely
56.	Türkoglu, M. E., Cansoy, R., & Parlar, H. (2017). Examining Relationship between Teachers' Self-Efficacy and Job Satisfaction. *Universal journal of educational research*, 5(5), 765-772.	489 teachers	Administrator's Job Satisfaction Scale Teacher Self-efficacy Scale	Teachers' Self-Efficacy and Job Satisfaction.	Large data
57.	Umuzdaş, s. (2020). The relationship between music teachers'work motivation and job satisfaction. *International Journal Of Eurasian Education And Culture*, 5(9), 698-744.	104 music teachers	Work Motivation Scale, Minnesota Job Satisfaction Questionnaire, and Demographic Information Form.	work motivation and job satisfaction. Teachers' extrinsic motivation	Small data, self-reported may be biased
58.	Unegbe, P. E., & Ogbene, I. V.	60 principals	questionnaire titled	Motivation, Principal,	Considerable data

	(2024). Influence Of Principals'motivation On Teachers'job Performance In Wukari Education Zone, Taraba State, Nigeria. *International Journal of Social Science Research and Anthropology.*	of secondary schools and 300 teachers	"Teachers Motivation Survey" (TMS), and "Principal Motivation Survey" (PMS).	Teachers, Training, Job Performance	
59.	Viseu, J., de Jesus, S. N., Rus, C., & Canavarro, J. M. (2016). Teacher motivation, work satisfaction, and positive psychological capital: A literature review. *Electronic Journal of Research in Education Psychology, 14*(39), 439-461.	NA	A literature review.	Teacher motivation, work satisfaction, and positive psychological capital:	A literature review/ no empirical data
60.	Werang, B. R., Agung, A. A. G., & Agung, G. (2017). Teachers' job satisfaction, organizational commitment, and performance in Indonesia: A study from Merauke District, Papua. *International Journal of Development and Sustainability, 6*(8), 700-711.	117 teachers	Spector's job satisfaction survey (JSS) modifying Hayday (2003) developing Richey's (1973)	Teachers' job satisfaction, organizational commitment, and performance	Data reasonable, 3 instruments, has potential
61.	Woolfolk Hoy, A. (2008). What motivates teachers? Important work on a complex question. Learning and Instruction, 18(5), 492-498.	N/A	Literature review	Reviewed various factors influencing teachers' motivation.	Review limits; quality of included studies varies.
62.	Yildiz, H., & Gizir, S. (2018). A Phenomenological Study of the Perceptions of Candidate Teachers about the Concepts of School, Teacher and Student in Their Dreams. International Journal of Instruction, 11(2), 309-324.	315 candidate teachers	Phenomenological interviews	Perceptions of candidates regarding educational concepts analyzed.	Candidate teacher Student focus; lacks input from teaching professionals.
63.	Yoo, J. H. (2016). The effect of professional development on teacher efficacy and teachers' self-analysis of their efficacy change. *Journal of*	148 teachers and school educators	Teachers Sense of Efficacy Scale (TSES), developed by Tschannen-Moran and	teacher efficacy, teacher reflection, self-efficacy change, teacher professional	Considerable data, 1 instrument lacks empirical data on other aspect

	Teacher Education for Sustainability, 18(1), 84–94.		Woolfolk Hoy (2001),	development	
64.	Zakariya, Y. F., & Wardat, Y. (2023). Job satisfaction of mathematics teachers: an empirical investigation to quantify the contributions of teacher self-efficacy and teacher motivation to teach. *Mathematics Education Research Journal,* 1-23.	708 women and 596 men.	TALIS — Teaching and Learning International Survey (	Interventions · Job satisfaction · Mathematics teachers · Self-efficacy	Large data, although self-reported
65.	Žibėnienė, G., Gudelis, D., Žemaitaitytė, I., & Stasiukynas, A. (2022). Factors Increasing TeachersMotivation: The Case of Vilnius City Municipality. *Public Policy and Administration, 21*(3).	873 teachers	teachers' survey based on assumptions derived from the Herzberg's (Herzberg, 1968; p. 87–96) motivation-hygiene theory	teachers, motivating factors, motivation	Considerable data

3.3. Risk of Bias in Studies

The results of the risk of bias assessment of each of the included studies will be presented in a simple table format that shows the assessment against the various categories. This makes it possible to identify the potential gaps in the current literature and, thus, help the reader get an idea of the quality of evidence used to support the findings of this review.

4. Discussion

4.1. Research Landscape and Methodologies

Based on the review of 65 quantitative studies of teacher motivation and job satisfaction, the research picture can be described as rather cohesive. The data that were used in most of the studies (56) was collected using surveys or questionnaires; the other studied used interviews, case studies, reviews, or mixed methods (Hargreaves, 2000; Ronfeldt et al., 2013). The number of participants involved in the studies was quite different, from 5 to 450 000, most studies employed a sample of less than a thousand subjects. This variation underlines the importance of the methodological care when comparing results of the different studies (Skaalvik & Skaalvik, 2011; Canrinus et al., 2012).

4.2. Theoretical Frameworks and Motivational factors

The research utilised several theoretical frameworks such as self- determination theory, job satisfaction theory, motivation-hygiene theory by Herzberg, and organisational culture theory (Ryan & Deci, 2017; Viseu et al. 2016). This reoccurs in most of the studies and it is the interaction between the intrinsic and extrinsic motivation. Other internal factors including the teacher's motivation to accomplish a goal and feeling of control over their work environment was seen as a strong determinant of satisfaction and motivation in the teaching profession while other external factors like pay and other amenities also emerged as important determinants (Gagné & Deci, 2005; Addison & Brundrett, 2008).

4.3. Leadership, School Climate, and Teacher Self-Efficacy

Leadership and school climate came out as key predictors of teacher motivation and job satisfaction. The review of literature documented that the practice of support and transformational leadership styles are beneficial and the factor of school culture plays a significant role (Leithwood & Beatty, 2008; Collie et al., 2012). Another construct which was mentioned in many of the studies is teacher self-efficacy, defined as the degree of belief in one's own capability to teach and manage learner, and underlining the need for professional development programs aimed at enhancing teachers' beliefs in their effectiveness (Tschannen-Moran & Hoy, 2001; Klassen & Chiu, 2010).

4.4. Challenges and Limitations

Nevertheless, several constraints were observed in this study as follows. However, most of the studies have used self-assessment data, which is, therefore, susceptible to bias. Furthermore, the samples of participants and teaching environments in the studies are relatively homogenous and thus the findings of the studies cannot be generalized easily (Guarino et al., 2006; Klassen et al. , 2009). However, the variety of the research methods and settings could be regarded as a limitation for the generalisation of the results and findings should be considered with caution in different cultural settings (Gough et al., 2012; Richardson & Watt, 2006).

4.5. Implication of the Study for Educational Practice and Policy

The implication of these findings to education policy and practice is therefore important. They emphasize the importance of the holistic models of teacher support that include both the professional development and the quality of working conditions (Day et al., 2006; Ingersoll, 2001). Some of the approaches like mentoring, purposeful professional development and supporting collaborative school culture can help to enhance motivation and job satisfaction of teachers (Hargreaves, 2000). Using Maslow's hierarchy of needs framework in educational reform, the need for basic and psychological needs of teachers should be meet to have dedicated teachers in the classroom (Maslow, 1943).

4.6. Future Research Directions

For the future research, it will be important to continue the investigation of the connection between the motivation and job satisfaction of teachers and students' achievement. More research work needs to be done in this area to assess how these factors function in different educational and cultural systems. Altogether, analysing the possible contribution of technology in motivating and satisfying teachers can be helpful for the growing tech-based environment in education (Dörnyei and Ushioda, 2011; Woolfolk Hoy, 2008). Longitudinal studies that map changes in teacher motivation over time will be useful in elucidating the role of different variables in its changes (Watt & Richardson, 2008).

5. Conclusion

The present body of literature offers a rich and rather multifaceted picture of the phenomena in focus, namely teacher motivation and job satisfaction. To that effect, it will be important for systems of education to consider these factors as they prepare for the future of teaching and learning (Zembylas & Papanastasiou, 2004; Sinclair et al., 2006). Thus, analysing the findings of empirical studies, this review offers a strong background for evidence-based recommendations that could contribute to the improvement of educational policies and practices and can help to develop the further understanding of teacher motivation as a key factor of educational effectiveness.

Acknowledgment:

Copyright:

References

[1]   Baker, D. P., McGee, C. C., & Lawson, S. R. (2023). The impact of school climate on teacher well-being. Educational Psychology, 58(2), 99-115.

[2]   Collie, R. J., Shapka, J. D., & Perry, N. E. (2012). School climate and social–emotional learning: Predicting teacher stress, job satisfaction, and teaching efficacy. Journal of Educational Psychology, 104(4), 1189-1204.

[3]   Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. Journal of Educational Psychology, 102(3), 741-756.

[4]   Skaalvik, E. M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. Teaching and Teacher Education, 26(4), 1059-1069

[5]   Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. American Educational Research Journal, 38(3), 499-534

[6]   Watt, H. M., & Richardson, P. W. (2008). Motivations, perceptions, and aspirations concerning teaching as a career for different types of beginning teachers. Learning and Instruction, 18(5), 408-428.

[7]   Day, C., Sammons, P., & Stobart, G. (2010). Evaluation of the impact of school leadership on teacher motivation and commitment. Educational Administration Quarterly, 46(3), 297-322.

[8]   Leithwood, K., & Jantzi, D. (2000). The effects of teacher leadership on student engagement. Educational Administration Quarterly, 36(5), 612-629.

[9]   Guskey, T. R. (2002). Professional development and teacher change. Teachers and Teaching: Theory and Practice, 8(3), 381-391.

[10]   Friedman, I. A., & Farber, B. A. (1992). Professional self-concept as a predictor of teacher burnout. The Journal of Educational Research, 86(1), 28-35.

[11]   Hargreaves, A. (2000). Mixed emotions: Teachers' perceptions of their interactions with students. Teaching and Teacher Education, 16(8), 811-826.

[12]   Skaalvik, E. M., & Skaalvik, S. (2011). Teacher job satisfaction and motivation to leave the teaching profession: Relations with school context, feeling of belonging, and emotional exhaustion. Teaching and Teacher Education, 27(6), 1029-1038.

[13]   Canrinus, E. T., Helms-Lorenz, M., Beijaard, D., Buitink, J., & Hofman, A. (2012). Self-efficacy, job satisfaction, motivation and commitment: Exploring the relationships between indicators of teachers' professional identity. European Journal of Psychology of Education, 27(1), 115-132.

[14]   Ryan, R. M., & Deci, E. L. (2017). Self-determination theory: Basic psychological needs in motivation, development, and wellness. Guilford Publications.

[15]   Viseu, J., de Jesus, S. N., Rus, C., & Canavarro, J. M. (2016). Teacher motivation, work satisfaction, and positive psychological capital: A literature review. Electronic Journal of Research in Education Psychology, 14(39), 439-461

[16]   Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. Journal of Organizational Behavior, 26(4), 331-362.

[17]   Leithwood, K., & Beatty, B. (2008). Leading with teacher emotions in mind. Corwin Press.

[18]   Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. Journal of Educational Psychology, 102(3), 741-756.

[19]   Guarino, C. M., Santibañez, L., & Daley, G. A. (2006). Teacher recruitment and retention: A review of the recent empirical literature. Review of Educational Research, 76(2), 173-208.

[20]   Richardson, P. W., & Watt, H. M. G. (2006). Who chooses teaching and why? Profiling characteristics and motivations across three Australian universities. Asia-Pacific Journal of Teacher Education, 34(1), 27-56

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

[22]   Dörnyei, Z., & Ushioda, E. (2011). Teaching and researching motivation (2nd ed.). Harlow: Longman.

[23]   Woolfolk Hoy, A. (2008). What motivates teachers? Important work on a complex question. Learning and Instruction, 18(5), 492-498.

[24]   Zembylas, M., & Papanastasiou, E. (2004). Job satisfaction among school teachers in Cyprus. Journal of Educational Administration, 42(3), 357-374.

[25]   Sinclair, C., Dowson, M., & McInerney, D. M. (2006). Motivations to teach: Psychometric perspectives across the first semester of teacher education. Teachers College Record, 108(6), 1132-1154.