

Factors Influencing Student Motivation in Classroom Learning: A Literature Review

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Abstract: Student motivation plays an important role in students' engagement, persistence, and participation in classroom learning activities. However, motivation is influenced by various psychological, instructional, social, and contextual factors. This study aims to examine the factors influencing student motivation in classroom learning and to identify strategies that may support students' motivation and engagement. This study employed a systematic literature review approach with qualitative content analysis. Literature was searched using Google Scholar, ERIC, and ScienceDirect with combinations of the keywords "student motivation," "learning motivation," "classroom learning," "student engagement," "motivating teaching," "teacher support," and "Self-Determination Theory." The search focused primarily on publications from 2020 to 2025, while relevant theoretical and contextual studies were retained when necessary. Following relevance and eligibility screening, 10 studies were included in the final qualitative synthesis. The findings indicate that student motivation is influenced by four interconnected dimensions: autonomy, competence, relatedness, and contextual influences. Competence and autonomous forms of motivation were consistently associated with positive learning-related outcomes, while teacher support, motivating teaching practices, classroom relationships, and learning environments influenced students' motivation and engagement. The findings also indicate that student-centered and autonomy-supportive practices, competence-supportive feedback, positive teacher student relationships, and purposeful use of technology may support motivation. However, the applicability of these strategies varies according to educational level and learning context. Therefore, efforts to improve student motivation should consider both students' psychological needs and the characteristics of the classroom environment.

Keywords: student motivation, classroom learning, Self-Determination Theory, student engagement, motivating teaching

INTRODUCTION

Learning motivation is an important factor in the quality of students' participation and persistence during classroom learning. Motivation influences students' willingness to engage in academic activities, invest effort, and continue working when learning tasks become challenging. Within Self-Determination Theory (SDT), motivation is not understood as a single construct but as a multidimensional process that differs according to the degree to which students experience their behavior as autonomous or controlled. Intrinsic motivation and identified forms of regulation are generally associated with more positive educational outcomes, whereas amotivation is associated with less favorable outcomes. Howard et al. (2021), through a meta-analysis of 344 samples involving 223,209 participants, found that intrinsic motivation was associated with student success and well-being, identified regulation was particularly related to persistence, and amotivation was associated with poorer outcomes.

Student motivation is also shaped by the satisfaction of three basic psychological needs: autonomy, competence, and relatedness. Autonomy refers to students' experience of volition and meaningful choice, competence refers to the perception that they are capable of dealing effectively with learning tasks, and relatedness concerns the feeling of connection and belonging with significant others. Bureau et al. (2022), through a meta-analysis involving 144 studies and more than 79,000 students, found that competence was the strongest positive predictor of self-determined motivation, followed by autonomy and relatedness. The study also found that teacher autonomy support was more strongly associated

with students' psychological need satisfaction and self-determined motivation than parental autonomy support.

Although psychological needs are important, student motivation cannot be separated from classroom experiences. Teaching methods, teacher behavior, classroom climate, peer relationships, learning resources, and technological environments can either support or undermine students' motivation. Cents-Boonstra et al. (2022), using a microanalytic observation approach involving 52 teachers, found that motivating questions, positive feedback, and support during exercises were associated with subsequent positive student engagement. These findings demonstrate that teacher behavior is not merely an instructional issue but is also related to students' motivational experiences during classroom interaction.

Interest is another factor associated with student participation. Uyun et al. (2022) reported significant positive relationships between learning interest, learning motivation, and student participation. Their analysis showed that learning motivation had a stronger contribution to student participation than interest alone. These findings suggest that students' motivation may influence their willingness to participate actively in classroom learning activities.

The role of motivation also varies according to educational context. Hauk and Gröschner (2022), in a systematic review of 20 quasi-experimental studies, found that learner-controlled instruction had a positive general effect on motivation-related outcomes, while its effects on cognitive learning outcomes were mixed. Importantly, the motivational effects were stronger in secondary education than in primary schools or universities. This suggests that motivational strategies should not be assumed to have identical effects across all student populations.

Technology presents another contextual dimension. Digital tools can provide opportunities for interaction, collaboration, and engaging learning experiences, but smartphones, social media, and online entertainment can also compete for students' attention. Therefore, technology should not automatically be regarded as either beneficial or harmful to motivation. Its effects depend on how it is integrated into instructional objectives and classroom management.

Based on these considerations, this study examines student motivation through four interconnected dimensions: autonomy, competence, relatedness, and contextual influences. The study also distinguishes between factors supported by empirical evidence and strategies that are primarily recommended on theoretical grounds. This approach is intended to provide a more systematic understanding of student motivation problems in classroom learning activities while avoiding excessive generalization across different educational contexts.

METHODS

This study employed a systematic literature review with a qualitative synthesis approach to examine factors influencing student motivation in classroom learning activities. The review was conducted to identify, compare, and synthesize previous findings concerning psychological factors, instructional practices, teacher support, classroom relationships, student engagement, and strategies for supporting student motivation. The literature review process consisted of literature identification, screening, eligibility assessment, study selection, and qualitative synthesis.

The literature search was conducted using Google Scholar, ERIC, and ScienceDirect, which were selected because they provide relevant academic publications in the fields of education, psychology, learning, and student motivation. The search used combinations of the keywords "student motivation," "learning motivation," "classroom learning," "student engagement," "motivating teaching," "teacher support," "motivation problems," and "Self-Determination Theory." The search primarily focused on publications published between 2020 and 2025 in order to prioritize recent evidence. However, earlier studies were retained when they provided important theoretical foundations or specific contextual evidence that was directly relevant to understanding student motivation.

The selection of studies was based on predetermined inclusion and exclusion criteria. Studies were included when they examined student motivation, learning motivation, autonomous motivation, or student engagement within an educational or classroom learning context. Studies were also required to discuss at least one factor relevant to the research focus, such as autonomy, competence, relatedness, teacher support, instructional practices, classroom environment, student participation, or motivational

interventions. Empirical studies, systematic reviews, and meta-analyses published in credible academic sources were considered eligible. In contrast, studies were excluded when they did not focus on student motivation or engagement, were unrelated to classroom or educational learning contexts, were duplicate publications, did not provide sufficient information relevant to the research focus, or examined populations and contexts that were not sufficiently related to student motivation in classroom learning.

The screening process was conducted in stages. First, potentially relevant publications were identified through searches using the predetermined keywords. Second, the titles and abstracts were examined to remove publications that were clearly unrelated to student motivation, classroom learning, or student engagement. Third, the full texts of potentially relevant publications were assessed against the established inclusion and exclusion criteria. Following this screening and eligibility assessment, 10 studies were included in the final qualitative synthesis. The selected studies consisted of empirical studies, systematic reviews, and meta-analyses addressing student motivation, psychological needs, teacher support, motivating teaching practices, classroom engagement, and motivational interventions. Because the available search records did not provide a reproducible total number of initial results across the three search platforms, the review does not report an estimated number of initially retrieved publications. Instead, it reports the number of studies that were ultimately eligible and included in the final synthesis.

For the analysis, information from each selected study was extracted according to the author and publication year, research focus, participants or educational context, motivational factors examined, main findings, and implications for classroom learning. The extracted information was then compared across studies to identify recurring findings, similarities, differences, and contextual variations. The synthesis was organized into four interconnected dimensions derived from Self-Determination Theory and the findings of the reviewed literature: autonomy, competence, relatedness, and contextual influences. Autonomy refers to students' experience of meaningful choice and volition in learning, competence concerns students' perceptions of their ability to successfully complete learning tasks, and relatedness refers to students' sense of belonging and supportive relationships with teachers and peers. Contextual influences include teaching practices, teacher support, classroom environment, educational level, and the use of technology.

The findings were subsequently interpreted by comparing evidence across different educational contexts. This comparison was used to determine whether particular motivational factors and strategies showed consistent patterns or varied according to educational level, instructional setting, and learning environment. The analysis also distinguished between strategies supported by direct empirical evidence and recommendations derived primarily from theoretical perspectives. This distinction was important to avoid presenting particular motivational strategies as universally effective and to provide a more context-sensitive interpretation of student motivation in classroom learning.

RESULTS AND DISCUSSION

Factors Influencing Student Motivation in Classroom Learning

The findings of the literature review indicate that student motivation in classroom learning is influenced by a combination of psychological and contextual factors. The reviewed studies do not support the view that motivation is determined solely by students' personal interest or willingness to learn. Instead, motivation develops through the interaction between students' psychological experiences and the conditions created by teachers, peers, instructional activities, and the broader learning environment. This finding is consistent with Self-Determination Theory (SDT), which explains that the quality of students' motivation is closely related to the satisfaction of three basic psychological needs: autonomy, competence, and relatedness.

The three psychological needs are interconnected rather than independent. Students are more likely to engage positively in learning when they feel that they have meaningful involvement in learning activities, believe that they are capable of completing academic tasks, and experience supportive relationships with teachers and peers. When these conditions are not adequately provided, students may experience reduced engagement, weaker persistence, or forms of motivation that are more externally controlled. Therefore, understanding student motivation requires attention not only to whether

students are motivated but also to why they participate in learning and how the classroom environment influences the quality of that motivation.

The literature also indicates that contextual factors influence how these psychological needs are experienced. Teacher behavior, instructional practices, classroom climate, educational level, and learning resources can either support or constrain students' motivation. Consequently, the factors identified in this review are better understood as interconnected components of the learning process rather than as isolated causes of motivation or demotivation.

Competence and Students' Perception of Ability

Competence emerged as an important factor influencing student motivation because students' perceptions of their own ability affect their willingness to engage with academic tasks and persist when difficulties occur. In the context of classroom learning, competence refers to students' perception that they can understand the material, complete learning activities, overcome challenges, and make progress toward academic goals. When students believe that their efforts can lead to successful outcomes, they are more likely to approach learning activities with persistence. Conversely, repeated experiences of failure or perceptions that learning tasks are beyond their ability may reduce students' willingness to participate.

This relationship is strongly supported by Bureau et al. (2022), who conducted a meta-analysis involving 144 studies and more than 79,000 students. Their findings showed that competence was the strongest of the three basic psychological needs in predicting self-determined motivation, followed by autonomy and relatedness. This finding is important because it suggests that students' motivation is not simply a matter of having an interest in a subject. Students also need to experience themselves as capable of dealing successfully with the demands of learning.

The role of competence can also be understood through students' previous learning experiences. Successful experiences may strengthen students' perceptions that they are capable learners, whereas repeated academic difficulties may contribute to uncertainty about their abilities. However, low academic achievement should not automatically be interpreted as evidence of low motivation. A student may experience academic difficulty while remaining highly motivated, particularly when appropriate support and constructive feedback are available. Therefore, competence concerns students' perception of capability, rather than achievement alone.

Teacher practices can influence this perception. Learning tasks that are excessively difficult may cause students to perceive that success is unattainable, whereas tasks that are too easy may provide insufficient opportunities for students to experience meaningful achievement. Constructive feedback is therefore important because it helps students understand what they have accomplished, what needs improvement, and how they can progress. From an SDT perspective, these conditions may support students' need for competence and subsequently contribute to more autonomous forms of motivation.

The findings consequently suggest that improving student motivation cannot be separated from the way teachers design and evaluate learning activities. Teachers need to provide an appropriate level of challenge, clear explanations, constructive feedback, and opportunities for students to recognize their progress. These practices do not guarantee motivation in every situation, but they create conditions that are theoretically and empirically associated with stronger competence perceptions.

Autonomy and Learning Interest

Autonomy represents another important dimension of student motivation. In classroom learning, autonomy refers to students' experience of volition and meaningful involvement in their learning rather than simply being required to follow external demands. Autonomy-supportive learning does not mean that students should have complete freedom without direction. Instead, it involves providing meaningful choices where appropriate, explaining the purpose of learning activities, acknowledging students' perspectives, and allowing students to experience a sense of ownership over their learning.

The importance of autonomy is reflected in the distinction between autonomous and controlled forms of motivation. Howard et al. (2021), through a meta-analysis of 344 samples involving 223,209 participants, found that intrinsic motivation was associated with positive outcomes such as student success and well-being, while identified regulation was particularly related to persistence. In contrast,

amotivation was associated with less favorable outcomes. These findings indicate that the quality of motivation is important because students may participate in learning for very different reasons.

Learning interest is also related to this process. When students perceive learning activities as meaningful and connected to their interests or goals, they may be more willing to invest effort. Uyun et al. (2022) found significant positive relationships between learning interest, learning motivation, and student participation. This suggests that motivation and interest can work together in supporting students' involvement in classroom activities. Nevertheless, interest should not be treated as identical to motivation. Interest concerns students' attraction or engagement toward particular content or activities, whereas motivation encompasses the reasons and psychological processes underlying their learning behavior.

The evidence regarding learner-controlled instruction further demonstrates that autonomy needs to be interpreted according to educational context. Hauk and Gröschner (2022) reviewed 20 quasi-experimental studies and found a positive general effect of learner-controlled instruction on motivation-related outcomes. However, the effects on cognitive learning outcomes were mixed. They also reported stronger motivational effects among secondary school students than among primary school and university students. This finding is significant because it challenges the assumption that increasing student choice will automatically produce the same motivational benefits for every group of learners.

Therefore, autonomy-supportive practices should be implemented with appropriate structure. Younger students or students who are unfamiliar with independent learning may require more guidance before they can benefit from extensive choice. Similarly, complex learning tasks may require teachers to establish clear boundaries while still allowing students to make meaningful decisions. Autonomy is consequently better understood as supported choice and psychological ownership, rather than unrestricted independence.

Relatedness and Social Relationships

Relatedness refers to students' perception that they are accepted, respected, supported, and connected to other people within the learning environment. In classroom settings, this need is particularly relevant because learning does not occur only through interaction between students and learning materials. Students also learn through relationships with teachers and peers. A classroom environment characterized by positive communication and social support can create conditions in which students feel comfortable participating, asking questions, making mistakes, and seeking assistance.

The reviewed literature indicates that teacher behavior plays an important role in supporting relatedness. Cents-Boonstra et al. (2022), through a microanalytic study involving 52 teachers, examined patterns of motivating teaching behavior and student engagement. Their findings indicated that motivating questions, positive feedback, and teacher support during learning activities were associated with subsequent positive student engagement. These findings suggest that teacher support can influence students' immediate classroom behavior and may contribute to a learning environment in which students are more willing to participate.

Relatedness is also connected to the other psychological needs. For example, a teacher who provides supportive feedback may simultaneously strengthen students' sense of competence, while allowing students to express their opinions may support autonomy. This means that teacher support should not necessarily be divided into completely separate categories. A single classroom interaction may satisfy several psychological needs simultaneously.

Evidence from the Indonesian context further demonstrates the importance of considering social and cultural conditions. Maulana et al. (2016), in a study involving Indonesian secondary students and teachers, found that teacher support for autonomy, competence, and relatedness was associated with students' autonomous motivation. However, the pattern of relationships was not necessarily identical to findings from Western educational contexts. This suggests that the basic psychological needs proposed by SDT may have broad relevance, while the ways in which those needs are supported and experienced may differ across cultures and educational environments.

Accordingly, positive teacher–student relationships should not be viewed simply as an additional classroom benefit. They may function as part of the motivational environment through which students experience autonomy, competence, and relatedness. At the same time, the evidence does not justify

claiming that every form of teacher support will produce the same motivational effect. The quality, consistency, and context of the interaction remain important.

Contextual and Instructional Influences

Beyond students' psychological needs, the literature demonstrates that motivation is strongly embedded in the instructional context. Teaching methods, classroom organization, teacher behavior, learning activities, and learning resources can influence how students experience autonomy, competence, and relatedness. Therefore, motivational problems should not be attributed exclusively to students' personal characteristics.

Cents-Boonstra et al. (2022) provide empirical evidence for the role of instructional behavior. Their findings showed that specific motivating teaching behaviors, including motivating questions, positive feedback, and support during exercises, were associated with subsequent student engagement. This suggests that teachers can influence motivation through the way they communicate, provide support, and organize classroom interaction.

However, the evidence also indicates that instructional strategies cannot be evaluated independently of context. Hauk and Gröschner (2022) demonstrated that learner-controlled instruction had different motivational effects across educational levels. This finding indicates that the same instructional approach may not have identical consequences for primary school students, secondary students, and university students. Differences in students' developmental characteristics, prior learning experience, self-regulation skills, and familiarity with independent learning may partly explain these variations.

Technology represents another contextual factor that requires careful interpretation. Digital learning tools may increase opportunities for interaction, collaboration, multimedia learning, and access to information. At the same time, smartphones, social media, and other forms of online entertainment may compete with students' attention. Therefore, it would be inappropriate to describe technology as inherently motivating or inherently distracting. Its influence depends on the purpose of use, the design of the learning activity, students' self-regulation, and classroom management.

Overall, the reviewed evidence indicates that contextual factors operate partly by shaping students' psychological experiences. A teaching practice may support motivation when it helps students feel competent, autonomous, and connected, whereas the same practice may have limited motivational value when it fails to address these needs. This provides a stronger explanation of student motivation than simply classifying teaching methods as "good" or "bad."

Synthesis of the Factors

Taken together, the findings indicate that student motivation is best understood as the result of an interaction between individual psychological needs and contextual learning conditions. Competence influences whether students believe they are capable of succeeding, autonomy influences whether they experience learning as personally meaningful and self-endorsed, and relatedness influences whether they feel socially supported within the learning environment. Teacher practices and classroom conditions provide the context in which these psychological needs are either supported or constrained.

The evidence therefore suggests that no single factor can adequately explain student motivation. A student may have strong interest in a subject but lose motivation when learning tasks consistently undermine their sense of competence. Similarly, students may possess adequate academic ability but participate less actively when they experience little autonomy or weak social support. This interaction explains why motivational problems can emerge even when students initially demonstrate interest in learning.

The findings also provide an important qualification regarding the application of motivational strategies. Strategies such as autonomy support, competence-supportive feedback, and positive teacher-student relationships are supported by theoretical and empirical evidence, but their implementation should be adapted to the educational context. Differences in educational level, students' developmental characteristics, cultural context, instructional setting, and classroom conditions mean that a strategy that works in one setting may require modification in another.

Therefore, the literature supports a context-sensitive approach to student motivation. Rather than searching for one universal teaching strategy, teachers should consider how different instructional

practices can simultaneously support students' autonomy, competence, and relatedness. This approach is more consistent with the evidence and provides a stronger basis for discussing strategies to improve student motivation in classroom learning.

IMPACT OF LOW STUDENT MOTIVATION ON CLASSROOM LEARNING

Low student motivation can affect the quality of students' involvement in classroom learning. The reviewed literature indicates that motivation is closely associated with students' persistence, participation, effort, and engagement in academic activities. However, low participation should not automatically be interpreted as evidence that a student lacks motivation. Students' classroom behavior can also be influenced by factors such as anxiety, learning difficulties, classroom climate, instructional practices, and opportunities to participate. Therefore, the impact of low motivation needs to be considered within the broader learning context.

One of the most important consequences of low-quality motivation is reduced persistence. Students who do not perceive learning activities as meaningful or who do not believe that they are capable of succeeding may be less willing to continue working when they encounter difficulties. Howard et al. (2021), in a meta-analysis involving 344 samples and 223,209 participants, found that different forms of motivation were associated with different educational outcomes. Intrinsic motivation was associated with positive outcomes such as student success and well-being, while identified regulation was particularly associated with persistence. In contrast, amotivation was associated with less favorable outcomes. These findings indicate that the reason students engage in learning is important for understanding how they respond to academic challenges.

Low motivation may also be reflected in students' classroom engagement. Engagement involves students' behavioral, emotional, and cognitive involvement in learning activities. Students who are motivated to learn are more likely to participate in discussions, complete learning activities, invest effort, and remain involved when tasks become difficult. In contrast, students experiencing amotivation may show withdrawal, limited participation, or reduced effort. Nevertheless, engagement should not be considered a direct equivalent of motivation because students may participate in classroom activities for external reasons even when their intrinsic interest is low.

The relationship between motivation and participation is also supported by Uyun et al. (2022), who found significant positive relationships between learning interest, learning motivation, and student participation. Their findings suggest that motivational conditions are related to students' willingness to become actively involved in classroom activities. This relationship is particularly relevant because participation provides students with opportunities to interact with teachers and peers, practice academic skills, and receive feedback. When motivation is low, reduced participation may consequently limit students' opportunities to benefit from these learning experiences.

Another potential consequence concerns students' willingness to invest effort in challenging learning tasks. Learning often requires students to experience temporary failure, confusion, or difficulty before they achieve an appropriate level of understanding. Students who have stronger autonomous motivation may be more willing to continue because they perceive the learning activity as meaningful or personally valuable. Students experiencing amotivation, however, may have fewer reasons to persist when immediate success is not achieved. This distinction helps explain why two students with similar academic abilities may demonstrate different levels of persistence and classroom involvement.

Low motivation may also interact with students' perceptions of competence. When students repeatedly experience difficulty without receiving sufficient instructional support, they may begin to perceive themselves as incapable of succeeding. This perception can weaken their willingness to engage with future learning tasks. The relationship can therefore become cyclical: unsuccessful learning experiences may reduce perceived competence, reduced competence may weaken motivation, and weaker motivation may subsequently reduce effort and engagement. The literature on psychological need satisfaction suggests that providing appropriate challenges and supportive feedback may help interrupt this negative pattern.

The classroom environment is also important in determining whether low motivation becomes persistent. Students who experience weak teacher support, limited opportunities to express their perspectives, or negative social interactions may find it more difficult to develop autonomous motivation.

In contrast, supportive relationships and motivating teaching practices can provide conditions that encourage students to re-engage with learning. Cents-Boonstra et al. (2022) found that motivating questions, positive feedback, and support during classroom exercises were associated with subsequent positive student engagement. This finding suggests that student engagement is not exclusively an individual characteristic but can also be influenced by teachers' observable classroom behavior.

However, the reviewed literature does not support the conclusion that low motivation inevitably results in poor academic achievement. The relationship between motivation and achievement is complex and may be influenced by instructional quality, prior knowledge, socioeconomic conditions, learning difficulties, and students' individual characteristics. For this reason, interventions aimed at improving motivation should not focus only on increasing students' willingness to participate. They should also address the classroom conditions that influence students' perceptions of competence, autonomy, and relatedness.

Overall, low student motivation can have consequences for persistence, effort, participation, and engagement, particularly when students experience amotivation or weak autonomous reasons for learning. The evidence nevertheless suggests that these outcomes are not predetermined. Motivation can change in response to students' experiences within the classroom. Consequently, identifying and addressing the conditions that contribute to low motivation is an important part of creating a learning environment that supports sustained student engagement.

STRATEGIES TO ENHANCE STUDENT MOTIVATION

The findings of the literature review indicate that improving student motivation requires more than simply making classroom activities more enjoyable. Effective motivational support needs to address the psychological conditions that influence how students experience learning. In particular, the strategies identified in the literature are closely related to the satisfaction of autonomy, competence, and relatedness. At the same time, the implementation of these strategies needs to consider students' educational level, learning characteristics, and classroom context.

Student-Centered and Autonomy-Supportive Learning

One strategy identified in the literature is the implementation of student-centered and autonomy-supportive learning. This approach provides students with opportunities to participate actively in the learning process, express their perspectives, make meaningful choices, and understand the relevance of learning activities. From the perspective of Self-Determination Theory, such practices may support students' need for autonomy because students experience learning as something in which they have meaningful involvement rather than simply responding to external demands.

The evidence concerning autonomy-supportive instruction is supported by Hauk and Gröschner (2022), who systematically reviewed 20 quasi-experimental studies examining learner-controlled instruction. Their findings indicated a positive general effect on motivation-related outcomes. However, the effects on cognitive learning outcomes were mixed. The authors also found that the motivational effects were stronger among secondary school students than among primary school and university students. This finding is important because it demonstrates that increasing learner control does not necessarily produce identical outcomes across educational levels.

Therefore, student-centered learning should not be interpreted as giving students complete freedom over the learning process. Excessive choice without sufficient structure may create difficulties, particularly for students who have limited experience with independent learning. Teachers still need to establish clear learning objectives, provide appropriate guidance, and determine the boundaries within which students can make meaningful decisions. In this sense, autonomy-supportive learning involves a balance between student choice and instructional structure.

Competence-Supportive Learning and Feedback

Another important strategy is to strengthen students' sense of competence through appropriately challenging learning activities and constructive feedback. The reviewed evidence indicates that competence is strongly associated with self-determined motivation. Bureau et al. (2022), through a

meta-analysis involving 144 studies and more than 79,000 students, identified competence as the strongest positive predictor of self-determined motivation among the three basic psychological needs.

This finding suggests that teachers should create opportunities for students to experience academic progress. Learning activities should be sufficiently challenging to encourage development but should remain achievable with appropriate effort and support. When students are able to recognize improvements in their understanding or performance, they may develop stronger perceptions of competence.

Feedback is particularly relevant in this process. Rather than focusing exclusively on whether an answer is correct or incorrect, feedback can explain what students have done well, what needs improvement, and what steps can be taken to improve their performance. Such feedback can provide students with information that helps them understand their learning progress. Cents-Boonstra et al. (2022) also found that positive feedback and support during classroom exercises were associated with subsequent student engagement.

However, competence-supportive feedback should not be confused with excessive praise. Feedback that is unrelated to students' actual performance may provide limited instructional value. The evidence instead supports feedback that is specific, constructive, and connected to the learning task. Consequently, teachers should use feedback not merely to evaluate students but also to help them understand how they can improve.

Positive Teacher Student Relationships

Developing positive teacher student relationships is another strategy that may support student motivation. Students are more likely to experience relatedness when teachers communicate respectfully, listen to students' perspectives, provide appropriate support, and demonstrate interest in students' learning progress.

The empirical evidence from Cents-Boonstra et al. (2022) indicates that motivating questions, positive feedback, and teacher support during learning activities were associated with subsequent positive student engagement. These findings suggest that teacher behavior can influence students' engagement through everyday classroom interactions.

Evidence from Indonesia also provides support for the relevance of teacher support. Maulana et al. (2016), in research involving Indonesian secondary students and teachers, found that teacher support for autonomy, competence, and relatedness was associated with students' autonomous motivation. However, the relative importance of different forms of teacher support differed from patterns commonly reported in Western contexts. This finding indicates that motivational strategies should be interpreted in relation to cultural and educational context.

Consequently, positive teacher student relationships should not be understood simply as creating a friendly classroom atmosphere. They can contribute to students' psychological need satisfaction and provide a social environment that encourages participation. Nevertheless, the relationship needs to remain academically purposeful. Teachers can be supportive while still maintaining clear expectations and appropriate academic standards.

Purposeful Use of Technology

Technology can also be incorporated as a supporting strategy for student motivation. Digital platforms, interactive learning media, educational applications, and multimedia resources can provide opportunities for students to interact with learning materials in different ways. Technology may also facilitate collaboration and provide students with immediate access to information.

However, the literature reviewed does not justify treating technology as automatically motivating. Digital devices can also create distractions through social media, entertainment, or activities unrelated to learning. Therefore, the motivational value of technology depends on how it is integrated into the instructional process.

The use of technology should consequently be guided by clear learning objectives. Teachers need to select digital tools because they provide an educational function rather than simply because they are technologically attractive. For example, a digital activity may be useful when it allows students to practice a skill, receive meaningful feedback, collaborate with classmates, or explore learning content in a way

that supports autonomy and competence. Conversely, technology that does not contribute to the learning objective may increase distraction without improving motivation.

Self Determination Theory Based Interventions

Among the strategies identified in the literature, interventions based explicitly on Self-Determination Theory provide relatively direct evidence concerning the improvement of student motivation. Wang et al. (2024) conducted a systematic review and meta-analysis of 36 SDT-based educational interventions involving approximately 11,792 participants. The findings indicated that SDT-based interventions improved students' intrinsic motivation, autonomy, and competence.

This evidence is particularly relevant because it moves beyond identifying correlations between motivational factors and outcomes. Intervention research provides evidence concerning whether deliberately supporting psychological needs can contribute to changes in students' motivation. The findings therefore strengthen the argument that motivational principles can be translated into practical educational interventions.

Nevertheless, SDT-based interventions should not be interpreted as a single standardized program that can be applied identically in every classroom. The reviewed interventions differed in their implementation, participants, educational contexts, and specific motivational components. Therefore, the effectiveness of an intervention may depend on how consistently teachers implement autonomy, competence, and relatedness support and whether the intervention is appropriate for the characteristics of the students.

Integration of Motivational Strategies

The reviewed evidence suggests that these strategies are most appropriately understood as complementary rather than mutually exclusive. Supporting autonomy without competence may provide students with choices without giving them sufficient ability or guidance to use those choices effectively. Similarly, providing competence-supportive feedback without relatedness may improve students' understanding of their performance but may not fully address their social and emotional experience in the classroom.

An integrated approach is therefore more consistent with Self-Determination Theory. Teachers can provide meaningful choices to support autonomy, appropriately challenging tasks and constructive feedback to support competence, and respectful and supportive interactions to support relatedness. Technology can then be used selectively when it strengthens these learning conditions rather than being treated as a motivational strategy in itself.

Importantly, the evidence also indicates that no single strategy can be considered universally effective. The effects of motivational strategies may differ according to educational level, student characteristics, cultural context, instructional setting, and the way the strategy is implemented. Therefore, improving student motivation requires teachers to adapt motivational practices to the specific conditions of their classrooms rather than applying one strategy uniformly to all students.

CONTEXTUAL DIFFERENCES AND LIMITATIONS

The findings of this review indicate that the factors influencing student motivation cannot be separated from the educational and cultural contexts in which learning takes place. Although autonomy, competence, and relatedness provide a useful theoretical framework for understanding student motivation, the way these needs are experienced and supported may differ according to educational level, cultural background, instructional setting, and students' characteristics. Therefore, findings from one educational context should not automatically be generalized to all students or classroom environments.

One important contextual difference concerns educational level. Hauk and Gröschner (2022), based on a systematic review of 20 quasi-experimental studies, found that learner-controlled instruction had a positive general effect on motivation-related outcomes, but the motivational effects were stronger among secondary school students than among primary school students and university students. This finding suggests that students' developmental characteristics and previous experiences with independent learning may influence how they respond to autonomy-supportive instructional practices. Younger

students may require greater structure and teacher guidance, whereas older students may be more prepared to benefit from opportunities for independent decision-making.

The findings also indicate that cultural context can influence the way motivational support operates. Maulana et al. (2016), in a study of Indonesian secondary students, found that teacher support for autonomy, competence, and relatedness was associated with autonomous motivation. However, the relative importance of autonomy support differed from patterns commonly reported in Western educational contexts. This finding does not mean that Self-Determination Theory is only applicable in particular cultures. Instead, it suggests that the general psychological needs described by the theory may be expressed through different forms of teacher student interaction depending on cultural expectations and educational practices.

Another contextual consideration is the instructional environment. Strategies such as student choice, learner-controlled instruction, collaborative activities, and digital learning tools may support motivation under certain conditions, but their effectiveness depends on how they are implemented. For example, providing students with too many choices without sufficient guidance may increase the demands placed on students, particularly when they have limited self regulation skills. Similarly, technology may support engagement when it is directly connected to learning objectives but may become a source of distraction when its use is not appropriately structured.

The reviewed studies also differ substantially in their research designs and populations. Some studies examined associations between motivational factors and student outcomes, whereas others used systematic reviews, meta-analyses, or intervention designs. Consequently, the strength of evidence is not identical across all findings. Correlational evidence can demonstrate that two variables are related, but it cannot by itself establish that one variable directly causes the other. Intervention studies provide stronger evidence regarding potential effects of motivational strategies, although their findings may still depend on the characteristics of the intervention and the educational setting.

The present review also has limitations concerning the scope and selection of the literature. The final synthesis consisted of 10 selected studies, and the literature search focused primarily on publications from 2020 to 2025. Although this approach prioritizes recent evidence, it may exclude relevant studies published outside the selected period or studies that were not identified through Google Scholar, ERIC, and ScienceDirect. In addition, the review used qualitative synthesis rather than statistical meta-analysis; therefore, the findings describe patterns across studies but do not provide a pooled effect size for the identified factors or strategies.

Another limitation concerns the heterogeneity of the included studies. The studies differed in participants, educational levels, countries, research methods, and operational definitions of motivation and engagement. These differences make direct comparison difficult and limit the extent to which a single motivational strategy can be considered universally effective. For this reason, the findings should be interpreted as evidence of recurring patterns and theoretically meaningful relationships, rather than as evidence that one factor will produce the same motivational outcome for every student.

Despite these limitations, the reviewed literature provides a consistent overall pattern. Students tend to demonstrate more positive motivational outcomes when classroom conditions support their sense of competence, autonomy, and relatedness. However, the specific ways in which these needs should be supported need to be adapted to students' developmental characteristics, cultural context, instructional environment, and learning objectives. Thus, the main implication of the review is not that teachers should apply a single universal motivational strategy, but that they should develop learning environments that respond to students' psychological needs while remaining sensitive to contextual differences.

CONCLUSION

This literature review examined the factors influencing student motivation in classroom learning and the strategies that may be used to support students' motivation and engagement. Based on the synthesis of the selected literature, student motivation is influenced by the interaction between psychological needs and contextual conditions. The findings particularly highlight the importance of autonomy, competence, and relatedness, together with teacher support, instructional practices, classroom relationships, and the broader learning environment.

Among the psychological factors, competence showed a particularly strong relationship with self-determined motivation, indicating that students' perceptions of their ability to understand and successfully complete learning tasks are important for maintaining motivation. Autonomy is also important because students tend to demonstrate more positive forms of motivation when they experience learning as meaningful and personally endorsed. Meanwhile, relatedness emphasizes the importance of supportive relationships with teachers and peers in creating a classroom environment that encourages participation and engagement.

The review further indicates that low-quality motivation or amotivation may be associated with reduced persistence, effort, participation, and classroom engagement. However, these outcomes should not be attributed solely to students' personal characteristics. Classroom conditions, instructional practices, teacher behavior, and students' previous learning experiences may contribute to the development or reduction of motivation. Therefore, motivational problems should be understood within the interaction between students and their learning environment.

Several strategies may support student motivation, including autonomy-supportive and student-centered learning, competence-supportive feedback, positive teacher–student relationships, and purposeful use of technology. Evidence from SDT-based interventions also suggests that structured support for psychological needs can improve motivational outcomes. Nevertheless, the effectiveness of these strategies is not universal. Differences in educational level, cultural context, student characteristics, and instructional conditions need to be considered when implementing motivational practices.

Overall, the findings suggest that improving student motivation requires a context-sensitive and psychologically supportive learning environment rather than the application of a single instructional technique. Teachers should provide meaningful opportunities for student choice, appropriate academic challenges, constructive feedback, and supportive interpersonal relationships while maintaining sufficient instructional structure. Future research should examine these factors across different educational levels and cultural contexts and should give greater attention to longitudinal and intervention-based research to clarify how changes in classroom conditions influence student motivation over time.

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