Investigating Students' Motivation Through Self-Determination Theory

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ABSTRACT

Motivation is a key factor educators can address to improve learning and academic performance. This study uses Self-Determination Theory (SDT) to understand motivation, which emphasizes three basic psychological needs: autonomy, competence, and relatedness. The study investigates whether these needs are fulfilled, enabling students to demonstrate greater engagement and determination. A quantitative study was conducted with a convenient sample of 30 participants who responded to a 5-point Likert scale survey comprising four sections: demographics, autonomy, relatedness, and competence. Findings revealed that motivation is driven by all three needs, with competence emerging as the strongest motivator. Conceptually, the study extends the framework by showing how SDT needs, integrated with variables from Martin et al. (2022) and Pintrich & De Groot (1990), foster online learning motivation. The results also suggest several pedagogical implications. Competence may be enhanced through guided tutorials, cognitive strategy training, and formative feedback. Relatedness can be fostered by collaborative tasks, peer reviews, forums, and regular check-ins. Autonomy may be promoted by providing task choices, encouraging goal-setting, supporting self-paced learning, and incorporating meaningful, real-world language activities. Future research should further investigate students' emotional engagement and self-regulation strategies to strengthen motivation and learner autonomy. The impact of digital learning tools and collaborative approaches also warrants exploration, as they may provide deeper insights into sustaining motivation and promoting lifelong learning.

Keywords: motivation, self-determination theory, autonomy, competence, relatedness

INTRODUCTION

Background of Study

Education in the 21st century is undergoing major changes in concepts, theories, principles, and methods. Motivation is perhaps the most important factor educators can address to improve learning and ensure successful academic performance (Vero & Puka, 2017; Yu & Watkins, 2010). Motivation represents the desire to accomplish a task, paired with the enthusiasm and determination to see it through (Bandhu et al., 2024). It acts as the driving force that propels individuals to take proactive steps and reach their goals. The term "intrinsic" refers to motivation that originates internally in the form of a person's interests and goals, while "extrinsic" refers to motivation that is prompted by external variables like incentives and penalties (Amaro et al., 2021; Sharma & Gupta, 2022).

Self-Determination Theory (SDT) provides a comprehensive framework for understanding motivation. Developed by Deci and Ryan (2012), SDT distinguishes between intrinsic and extrinsic motivation. Intrinsic motivation derives from genuine interest and enjoyment in learning activities, whereas extrinsic motivation comes from external pressures, rewards, or obligations. SDT emphasizes three basic psychological needs: autonomy, competence, and relatedness. When these needs are fulfilled, students show greater engagement and determination. Conversely, frustration of these needs can undermine motivation and academic performance.

In the context of foreign language learning, motivation plays a vital role. Intrinsically motivated learners often learn languages with curiosity, enjoyment, and persistence. In contrast, extrinsically motivated learners may learn for grades, recognition, or career advancement. According to Wang and Wang (2024), satisfying psychological needs such as autonomy, competence, and relatedness strengthens foreign language learners' engagement and willingness to communicate. Thus, teachers who encourage autonomy, provide constructive feedback, and build supportive relationships can boost motivation in foreign language classrooms. Investigating students' motivation through SDT therefore offers both theoretical and practical insights.

Statement of Problem

Motivation strongly influences students' learning outcomes and academic achievement. Tokan and Imakulata (2019) examined the direct effects of intrinsic and extrinsic motivation on learning behavior, as well as their combined effects on learning achievement. They also investigated the indirect effect of intrinsic and extrinsic motivation on achievement through learning behavior, and the overall influence of motivation and behavior on students' academic performance in the Biology Education Department of FKIP Undana. The findings revealed that intrinsic motivation directly influences learning behavior, and both factors significantly contribute to learning achievement. Furthermore, intrinsic and extrinsic motivation, together with learning behavior, collectively affect students' academic success.

However, Hari Rajan et al. (2024) revealed that student engagement declined during the transition from online to hybrid and on-campus learning after the pandemic. This shift highlighted the need for educators to strengthen motivation, belonging, and collaboration to sustain student engagement. Effective strategies should therefore address challenges across both digital and face-to-face environments.

Guo (2024) asserted that traditional educational practices relying on rewards and punishment are increasingly questioned due to their tendency to reduce intrinsic drive. Behaviors motivated by external incentives often diminish or disappear once those incentives are withdrawn. This underscores the necessity for educational strategies that cultivate a self-sustaining form of motivation, one that is driven by curiosity, personal interest, and an internal desire to learn. Recent research also revealed that adult learners are motivated by both intrinsic enjoyment and extrinsic benefits such as career development, cultural interest and identity formation when learning foreign languages (Acat & Demiral, 2024). SDT, which highlights autonomy, competence, and relatedness, offers a compelling solution to the limitations inherent in traditional motivational strategies. Thus, further investigation is crucial to understand the connection between SDT and students' learning motivation.

Objective of the Study and Research Questions

This study is done to explore motivation for learning from the perspectives of SDT. Specifically, this study is done to answer the following questions;

1. How do learners perceive autonomy in the learning of foreign language?
2. How do learners perceive relatedness in the learning of foreign language?
3. How do learners perceive competence in the learning of foreign language?
4. How do the means differ for motivation in learning a foreign language?

LITERATURE REVIEW

Theoretical Framework of the Study

Learning Motivation and Self-Regulation

Lexically, self-regulation refers to controlling one's present conduct based on motives linked to future goals or ideals (English & English, 1958). A key issue concerns why motivation is essential during students' efforts to self-regulate their learning. Motivation influences several aspects of academic performance. For instance, motivated learners are more attentive to their processes and outcomes than less motivated peers (Bouffard-

Bouchard et al., 1991). They also make better progress when voluntarily choosing tasks compared to unmotivated students (Zimmerman & Kitsantas, 1999). Moreover, motivated students apply more effort on difficult tasks, which enhances mastery (Schunk & Hanson, 1985). Finally, persistence driven by motivation enables learners to study independently more effectively than less persistent classmates (Schunk, 1984). Since self-regulation depends heavily on sustaining intrinsic motivation, SDT offers a valuable framework for understanding how autonomy, competence, and relatedness shape students' learning behaviors.

Self-Determination Theory

SDT, developed by Deci and Ryan (2012), provides a comprehensive framework for understanding students' motivation in educational contexts. Unlike traditional approaches that rely on external rewards or punishments, SDT emphasizes the importance of intrinsic motivation in sustaining long-term engagement. The theory proposes that human motivation is guided by three innate psychological needs: autonomy, competence, and relatedness. Autonomy refers to students' ability to make choices and feel ownership of their learning. Competence involves the perception of being capable and effective in one's tasks. Relatedness highlights the importance of social connection and a sense of belonging in learning environments. When these needs are met, students demonstrate enhanced determination, deeper engagement, and higher achievement. Conversely, when these needs are undermined, motivation declines, often resulting in disengagement and poor learning outcomes. SDT therefore provides a useful lens for exploring how students regulate their learning and how educators can create supportive environments that nurture self-sustaining motivation.

Past Studies

Wang et al. (2019) examined the relationships among need satisfaction, motivation, and outcomes, as well as the differential effects of the three psychological needs: competence, autonomy, and relatedness. The sample consisted of 1549 students from 10 secondary schools in Singapore. Structural equation modelling (SEM) analysis showed that students' psychological needs were positively related to autonomous motivation, which in turn led to higher enjoyment, value and lower pressure. On the other hand, the three psychological needs were negatively related to controlled motivation. Controlled motivation was positively related to pressure but negatively related to enjoyment and value. In terms of the differential effects of the three psychological needs, relatedness contributed more strongly to autonomous motivation, compared to autonomy and competence. In contrast, while autonomy and relatedness contributed to controlled motivation negatively, competence positively predicted controlled motivation. Finally, competence was found to link to pressure in a negative way. In summary, the findings of the current study provide support for the propositions of SDT and offer insight into the differential effects of the three psychological needs.

Riley (2015) explored whether the needs for competence, autonomy, and relatedness were better satisfied in home-schooled young adults compared to traditionally schooled young adults. Using a quantitative design, the study involved 50 home-schooled and 50 non-home-schooled participants. Competence, autonomy, and relatedness are regarded as necessary conditions for intrinsic motivation to produce successful outcomes. The research questions therefore focused on whether the separate measures of these three needs were better satisfied in the home-schooled group. Findings revealed that home-schooled students reported higher levels of autonomy and competence satisfaction than traditionally schooled students, although no difference was observed in relatedness satisfaction.

Hartnett (2015) investigated motivation in online learning by drawing on SDT as an analytical framework. The study built on previous research by focusing on pre-service teachers situated in an online learning context. While online learning has expanded rapidly, high attrition rates suggest that not all learners succeed in such settings, making motivation a critical factor. The study employed autonomy, competence, and relatedness as key lenses to identify social and contextual influences that undermined learners' psychological needs. Prominent undermining factors included high workload, assessment pressure, perceptions of low task relevance (autonomy-undermining), unclear guidelines, insufficient feedback from instructors (competence-undermining), and communication issues with peers (relatedness-undermining).

Akbari et al. (2015) compared language learning outcomes between students learning English through a Facebook group and those learning in a traditional face-to-face classroom. Using SDT as a framework, they focused on the three main variables, which improve self-determination and motivation outside and inside the classroom: autonomy, competence and relatedness. Findings indicated significant differences between the two groups in terms of both learning outcomes and the three SDT variables. Students in the Facebook group reported feeling more autonomous, competent, and related. Moreover, all three variables were positively correlated with learning outcomes, although the relationships were weak within each group. Among the SDT variables, relatedness emerged as the strongest predictor of learning outcomes, followed by competence.

Zhang (2024) investigated the effects of self-regulation strategies on Chinese EFL learners' motivation, self-efficacy, willingness to communicate (WTC), and creativity. Eighty intermediate learners were selected and assigned to either an experimental group (EG) or a control group (CG). Prior to the intervention, four questionnaires were administered to assess participants' motivation, WTC, self-efficacy, and creativity. The EG received instruction incorporating self-regulation strategies, while the CG was taught through traditional methods without such strategies. After 15 sessions, the same questionnaires were administered as post-tests. Results revealed that the EG significantly outperformed the CG across all four measures.

Conceptual Framework of the Study

Figure 1 below depicts the conceptual framework of the study. This study is anchored from self-determination theory (SDT) by Deci & Ryan (2012). They presented this theory to show the motivation and well-being of individuals towards their tasks. This theory focuses on the role of three psychological needs. In the context of this study, the needs refers to learners' needs in order to learn. The three main needs are autonomy, relatedness and competence. Also, in the context of this study, the three main needs from SDT are merged with the variables from Martin et al. (2022) and Pintrich & De Groot (1990) to become the variables of this study. Autonomy is measured by constructs by Martin et al. (2022) such as (i) consistency of interest and (ii) perseverance. Next, relatedness is measured by Pintrich & De Groot's (1990) constructs such as (i) self-efficacy, (ii) intrinsic value and (iii) test anxiety. Lastly, competence is measured by Pintrich & De Groot's (1990) constructs such as (i) cognitive strategy use and (ii) self-regulation.

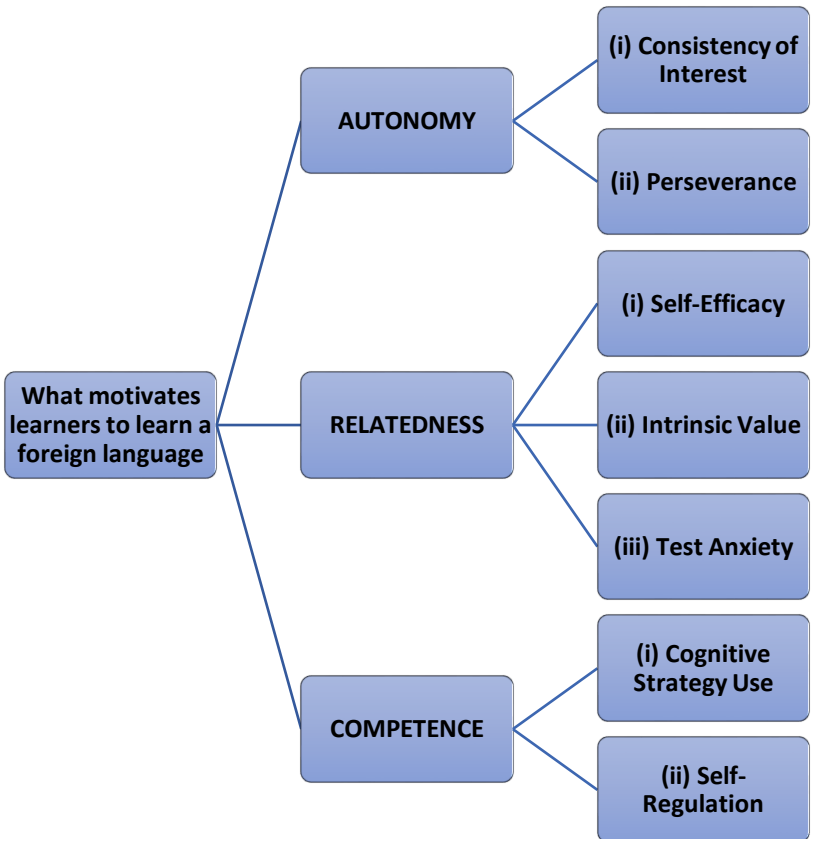

Figure 1- Conceptual Framework of the Study- What motivates learners to learn a foreign language

METHODOLOGY

This quantitative pilot study is done to explore motivation for learning from the perspectives of SDT. A convenient sample of 30 participants responded to the survey. Table 1 below shows the categories used for the Likert scale; 1 is for Never, 2 is for Rarely, 3 is for Sometimes, 4 is for Very Often and 5 is for Always.

Table 1- Likert Scale Use

1	Never
2	Rarely
3	Sometimes
4	Very Often
5	Always

Table 2 shows the distribution of items in the survey. The instrument used is a 5 Likert-scale survey rooted from Deci & Ryan (2012), Martin et.al (2022) and Pintrich & De Groot (1990) to reveal the variables in table 2 below. Part Two is Autonomy, which contains 12 items. Part Three is Relatedness, consisting of 22 items, while Part Four is Competence, which also has 22 items.

Table 2- Distribution of Items in the Survey

PART	VARIABLE		CONSTRUCT	No Of Items	Total Items	Cronbach Alpha
TWO	AUTONOMY	i	CONSISTENCY OF INTEREST	6	12	.793
		ii	PERSEVERANCE	6		
THREE	RELATEDNESS	i	SELF-EFFICACY	9	22	.928
		ii	INTRINSIC VALUE	9		
		iii	TEST ANXIETY	4		
FOUR	COMPETENCE	i	COGNITIVE STRATEGY USE	13	22	.921
		ii	SELF-REGULATION	9		
	TOTAL NO OF ITEMS				56	.960

Table 2 also shows the reliability of the survey. The analysis shows a Cronbach alpha of .793 for autonomy, .928 for relatedness and .921 for competence. The overall Cronbach alpha for all 56 items is .960; thus, revealing a good reliability of the instrument chosen/used. Further analysis using SPSS is done to present findings to answer the research questions for this study.

FINDINGS

Demographic Analysis

Table 3-Percentage for Demographic Profile

Question	Demographic Profile	Categories	Percentage (%)
1	Gender	Male	37%
		Female	63%

2	Discipline	Science & Technology	80%
		Humanities & Social Sciences	20%
3	Semester	Part 1-3	47%
		Part 4 and above	53%

Table 3 presents the demographic profile of the respondents. Of the total, 37% are male and 63% are female. In terms of academic discipline, 80% of the respondents are studying Science and Technology, while 20% are from Humanities and Social Sciences. Regarding year of study, 47% of the respondents are in Parts 1–3, whereas 53% are in Part 4 and above.

Descriptive Statistics

Findings for Autonomy

This section presents data to answer research question 1- How do learners perceive autonomy in the learning of foreign language? In the context of this study, this is measured by (i) consistency of interest and (ii) perseverance.

Consistency Of Interest

Table 4 – Mean for Consistency of Interest

ITEM	Mean	SD
GCIQ1 I often set a goal but later choose to pursue a different one.	3.4	0.8
GCIQ2 New ideas and new projects sometimes distract me from previous ones.	3.6	0.8
GCIQ 3 I become interested in new pursuits every few months.	3.4	0.8
GCIQ 4 My interests change from year to year.	3.8	0.8
GCIQ 5 I have been obsessed with a certain idea or project for a short time but later lost interest.	3.3	0.9
GCIQ 6 I have difficulty maintaining my focus on projects that take more than a few months to complete.	3.6	0.9

Table 4 presents the mean scores for consistency of interest. The highest mean score is 3.8 (SD = 0.8) for item 4, which states that respondents' interests change from year to year. The second-highest scores are 3.6 (SD = 0.8 and 0.9), shared by items 2 and 6, indicating that new ideas and projects sometimes distract respondents from earlier ones and that they often struggle to maintain focus on projects lasting more than a few months. The lowest mean score is 3.3 (SD = 0.9) for item 5, which shows that respondents may become obsessed with an idea or project for a short time but later lose interest.

Perseverance

Table 5 – Mean for Perseverance

ITEM	Mean	SD
GCPQ1I have achieved a goal that took years of work.	3.6	1.0
GCPQ 2 I have overcome setbacks to conquer an important challenge.	3.6	0.9
GCPQ3 Setbacks don't discourage me.	3.4	1.0
GCPQ4 I finish whatever I begin.	4.0	0.9

GCPQ5 I am a hard worker.	3.9	0.8
GCPQ6 I am diligent.	3.8	0.8

Table 5 presents the mean scores for perseverance. The highest mean score is 4.0 (SD = 0.9) for item 4, which states that respondents finish whatever they begin. Item 5 obtained the second-highest mean score of 3.9 (SD = 0.8), indicating that respondents are hard workers. The lowest mean score is 3.4 (SD = 1.0) for item 3, which suggests that setbacks do not discourage respondents.

Findings for Relatedness

This section presents data to answer research question 2- How do learners perceive relatedness in the learning of foreign language? In the context of this study, this is measured by (i) self-efficacy, (ii) intrinsic value, and (iii) test anxiety.

Self-Efficacy

Table 6 – Mean for Self-efficacy

ITEM	Mean	SD
MBSEQ1Compared with other students in this class I expect to do well.	3.7	0.7
MBSEQ2I'm certain I can understand the ideas taught in this course.	4.0	0.7
MBSEQ 3I expect to do very well in this class.	4.1	0.7
MBSEQ 4Compared with others in this class, I think I'm a good student	3.4	1.1
MBSEQ5I am sure I can do an excellent job on the problems and tasks assigned for this class.	3.8	0.8
MBSEQ61 think I will receive a good grade in this class.	3.7	1.0
MBSEQ 7My study skills are excellent compared with others in this class.	3.4	1.1
MBSEQ8Compared with other students in this class I think I know a great deal about the subject.	3.5	1.9
MBSEQ9I know that I will be able to learn the material for this class	3.8	0.7

Table 6 presents the mean scores for self-efficacy. The highest mean score is 4.1 (SD = 0.7) for item 3, which states that respondents expect to do very well in class. The second highest mean score is 4.0 (SD=0.7), indicating that respondents are confident they can understand the ideas taught in the course. The lowest mean score is 3.4 (SD =1.1), shared by items 4 and 7. These items indicate that respondents are less confident about being better student than their peers and about having excellent study skills compared with others in class.

Intrinsic Value

Table 7 – Mean for Intrinsic Value

ITEM	Mean	SD
MBIVQ1I prefer class work that is challenging so I can learn new things.	3.7	0.9
MBIVQ2It is important for me to learn what is being taught in this class.	4.2	0.8
MBIVQ3I like what I am learning in this class.	4.2	0.7

MBIVQ 4I think I will be able to use what I learn in this class in other classes.	3.9	0.8
MBIVQ 5I often choose paper topics I will learn something from even if they require more work.	3.7	0.8
MBIVQ 6Even when I do poorly on a test I try to learn from my mistakes.	4.0	0.9
MBIVQ7 I think that what I am learning in this class is useful for me to know.	4.3	0.7
MBIVQ 8I think that what we are learning in this class is interesting.	4.3	0.8
MBIVQ 9Understanding this subject is important to me.	4.2	0.8

Table 7 demonstrates the mean scores for intrinsic value. The highest mean score is 4.3 (SD = 0.7 and 0.8), shared by item 7 and item 8, which state that respondents find what they are learning in class useful and interesting, respectively. The second highest mean score is 4.2 (SD=0.8, 0.7 and 0.8), shared by items 2, 3 and 9. These items indicate that respondents consider it important to learn what is being taught, enjoy what they are learning, and regard understanding the subject as important. The lowest mean score is 3.7 (SD =0.9 and 0.8), shared by items 1 and 5, which show that respondents prefer challenging classwork that helps them learn new things and often choose paper topics that require more effort but enhance learning.

Test Anxiety

Table 8– Mean for Test anxiety

ITEM	Mean	SD
MBTAQ1I am so nervous during a test that I cannot remember facts I have learned.	3.8	0.9
MBTAQ 2I have an uneasy, upset feeling when I take a test.	3.5	1.0
MBTAQ 3I worry a great deal about tests.	3.7	1.1
MBTAQ 4When I take a test I think about how poorly I am doing.	3.8	1.2

Table 8 presents the mean scores for test anxiety. The highest mean score is 3.8 (SD = 0.9 and 1.2), shared by items 1 and 4. These items show that respondents often feel nervous during tests to the point of forgetting what they have learned, and they tend to think about performing poorly while taking a test. The second highest mean score is 3.7 (SD = 1.1) for item 3, suggesting that respondents worry a great deal about tests. The lowest mean score is 3.5 (SD = 1.0) for item 2, which indicates that respondents frequently experience an uneasy, upset feeling when taking tests.

Findings for Competence

This section presents data to answer research question 3- How do learners perceive competence in the learning of foreign language? In the context of this study, this is measured by (i) cognitive strategy use, (ii) self-regulation.

Cognitive Strategy Use

Table 9– Mean for Cognitive strategy use

ITEM	Mean	SD
SRLSCSUQ1When I study for a test, I try to put together the information from class and from the book.	4.1	0.7
SRLSCSUQ 2When I do homework, I try to remember what the teacher said in class so I can answer the questions correctly.	4.1	0.8

SRLSCSUQ 3It is hard for me to decide what the main ideas are in what I read.	3.3	1.0
SRLSCSUQ 4When I study, I put important ideas into my own words.	3.8	0.7
SRLSCSUQ 5I always try to understand what the teacher is saying even if it doesn't make sense.	3.9	0.7
SRLSCSUQ 6When I study for a test, I try to remember as many facts as I can.	4.2	0.8
SRLSCSUQ 7When studying, I copy my notes over to help me remember material.	4.0	0.9
SRLSCSUQ 8When I study for a test, I practice saying the important facts over and over to myself.	4.1	0.8
SRLSCSUQ 9I use what I have learned from old homework assignments and the textbook to do new assignments.	4.0	0.8
SRLSCSUQ 10When I am studying a topic, I try to make everything fit together.	3.9	0.7
SRLSCSUQ 11When I read material for this class, I say the words over and over to myself to help me remember.	4.2	0.6
SRLSCSUQ 12I outline the chapters in my book to help me study.	4.1	0.6
SRLSCSUQ 13When reading I try to connect the things, I am reading about with what I already know.	4.1	0.7

Table 9 demonstrates the mean scores for cognitive strategy use. The highest mean score is 4.2 (SD = 0.8 and 0.6), shared by item 6 and item 11. These items show that respondents try to remember as many facts as possible when preparing for a test and repeat words to themselves while reading class material to aid memory. The second highest mean score is 4.1 (SD=0.7, 0.8, 0.8, 0.6 and 0.7), shared by items 1, 2, 8, 12 and 13. These results indicate that respondents combine information from class and textbooks when studying, recall what the teacher said to answer homework questions, rehearse important facts repeatedly, outline chapters to support their study, and connect new reading material with their prior knowledge. The lowest mean score is 3.3 (SD = 1.0) for item 3, which suggests that respondents often find it difficult to identify the main ideas in their reading.

Self-Regulation

Table 10 – Mean for Self-regulation

ITEM	Mean	SD
SRLSSRQ1I ask myself questions to make sure I know the material I have been studying.	4.0	0.8
SRLSSRQ 2When work is hard I either give up or study only the easy parts.	3.4	1.1
SRLSSRQ 3I work on practice exercises and answer end of chapter questions even when I don't have to.	3.7	0.8
SRLSSRQ 4Even when study materials are dull and uninteresting, I keep working until I finish.	3.8	0.9
SRLSSRQ 5Before I begin studying, I think about the things I will need to do to learn.	3.7	0.8
SRLSSRQ 6I often find that I have been reading for class but don't know what it is all about.	3.5	0.8
I find SRLSSRQ 7that when the teacher is talking, I think of other things and don't really listen to what is being said.	3.2	0.9
SRLSSRQ 8When I'm reading, I stop once in a while and go over what I have read.	3.7	0.9
SRLSSRQ 91 work hard to get a good grade even when I don't like a class.	4.0	0.8

Table 10 presents the mean scores for self-regulation. The highest mean score is 4.0 (SD = 0.8), shared by items 1 and 9. These items show that respondents ask themselves questions to ensure they understand the material they are studying and work hard to achieve good grades even in classes they do not like. The second highest mean score is 3.8 (SD = 0.9) for item 4, suggesting that respondents persist in their work until completion, even when the study materials are dull or uninteresting. The lowest mean score is 3.2 (SD = 0.9) for item 7, which indicates that respondents struggle to pay attention when the teacher is speaking.

CONCLUSION

Summary of Findings and Discussions

This study examined students' motivation through Self-Determination Theory (SDT), focusing on autonomy, relatedness, and competence in foreign language learning. For autonomy, measured by consistency of interest and perseverance, students showed shifting interests but strong persistence in completing tasks, though setbacks sometimes discouraged them. This aligns with Riley (2015), who found home-schooled students reported higher autonomy and competence satisfaction.

For relatedness, assessed through self-efficacy, intrinsic value, and test anxiety, students generally felt confident but sometimes doubted their standing compared to peers. They valued learning when useful and interesting but were less inclined toward challenging tasks. Test anxiety was moderate, with nervousness most evident. These results align with Hartnett (2015), who identified workload, assessment pressure, task relevance, unclear guidelines, and limited feedback as key undermining factors.

For competence, measured by cognitive strategy use and self-regulation, students relied on rehearsal and organizational strategies but struggled to identify main ideas. They demonstrated strong effort regulation yet weaker attentional control, supporting Zhang (2024), who found self-regulation strategies enhanced motivation and self-efficacy among EFL learners.

Overall, competence scored highest, followed by relatedness and autonomy. This contrasts with Wang et al. (2019) and Akbari et al. (2015), who found relatedness to be the strongest predictor of motivation and learning outcomes.

Implications and Suggestions for Future Research

Theoretical and Conceptual Implications

This study applies SDT to examine online language learning motivation, integrating constructs from Martin et al. (2022) and Pintrich & De Groot (1990) into a comprehensive conceptual framework. SDT emphasizes that motivation is driven by autonomy, relatedness, and competence, which shape self-regulated learning and academic performance.

The findings strengthen the theoretical propositions of SDT. Competence emerged as the strongest motivator, indicating that learners' ability to apply cognitive strategies and regulate effort is critical in online language learning. Relatedness also contributed positively, showing that social and instructor support enhances motivation. Finally, autonomy influenced learners' persistence and interest consistency, supporting the role of intrinsic motivation in sustaining long-term engagement. The results support SDT's view that psychological needs enhance self-regulated learning. The study extends the conceptual framework by demonstrating how the SDT needs merged with the variables as suggested by Martin et al. (2022) and Pintrich & De Groot's (1990) in fostering online learning motivation.

Pedagogical Implications

The findings reveal that competence, relatedness, and autonomy influence online language learning motivation, with competence being strongest. To enhance competence, instructors can use guided tutorials, cognitive strategy training, and formative feedback. Relatedness can be supported through collaborative tasks,

peer reviews, forums, and regular check-ins. Autonomy can be fostered by offering task choices, promoting goal-setting and self-paced learning, and incorporating real-world, meaningful language tasks.

Suggestions for Future Research

Future research can examine students' emotional engagement and self-regulation strategies to foster motivation and enhance learner autonomy. The effect of digital learning and collaborative approaches should also be explored, as they can offer deeper insights into enhancing motivation and promoting lifelong learning.

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