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Article

Research on Intrinsic Motivation Strategies and Chinese Learning Outcomes of Second Language Learners Based on Self-Determination Theory

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Abstract: This study focuses on the application of self-determination theory (SDT) in stimulating intrinsic motivation among second language learners and enhancing their Chinese learning outcomes. As global interest in the Chinese language continues to grow rapidly, educators face persistent difficulties in maintaining long-term student interest and active participation. Through comprehensive theoretical analysis and rigorous practical investigation, the research identifies the underlying mechanisms by which learner autonomy, competence, and relatedness needs directly influence language acquisition processes. Furthermore, it proposes actionable pedagogical strategies to promote and sustain intrinsic motivation across diverse educational contexts. Current challenges in Chinese language learning, such as low learner engagement, insufficient autonomous learning capabilities, and significant motivational decay over time, are systematically addressed through targeted motivational strategies. Optimization paths developed in this study include the implementation of autonomy-supportive teaching methodologies, targeted competence enhancement exercises, active social interaction facilitation, and sustainable motivational curriculum design. By integrating these critical elements into daily instructional practices, educators can successfully create a more supportive, inclusive, and highly engaging learning environment. Ultimately, the study provides robust practical guidance for improving overall Chinese learning effectiveness, fostering resilient learner motivation, and significantly advancing contemporary academic research on motivation-driven second language acquisition frameworks.

Keywords: self-determination theory; second language acquisition; intrinsic motivation; chinese education; pedagogical strategies

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1. Introduction

1.1. Research Background and Significance

In the domain of second language acquisition, learner motivation is widely acknowledged as a pivotal factor that significantly influences learning outcomes. Intrinsic motivation, which is fueled by personal interest and the inherent satisfaction derived from the learning process, plays a crucial role in fostering sustainable language development. The Chinese language, when learned as a second language, poses distinct challenges due to its intricate writing system, tonal pronunciation, and the depth of its cultural context [1]. Traditional pedagogical approaches often focus on rote memorization and external assessments, which can potentially diminish learners' intrinsic motivation. Self-determination theory (SDT), which emphasizes the importance of autonomy, competence, and relatedness, offers a comprehensive framework for understanding and enhancing learner motivation. By exploring strategies that stimulate intrinsic motivation within the framework of SDT, educators can not only enhance learning efficiency and proficiency in

Chinese but also encourage greater learner engagement, autonomy, and a long-term commitment to language learning. This approach can lead to more meaningful and effective language acquisition experiences.

1.2. Definition of Core Concepts

Self-determination theory suggests that individuals achieve optimal motivation when their needs for autonomy, competence, and relatedness are fulfilled. Intrinsic motivation is characterized by engaging in activities for the inherent satisfaction they provide, rather than for external rewards. In the context of second language acquisition, intrinsic motivation is evident through a genuine interest in the language and culture, self-directed practice, and enjoyment of communicative tasks. When learning Chinese, outcomes include linguistic proficiency, communicative competence, and cultural understanding. This study examines the relationship between motivational strategies based on self-determination theory and performance in learning Chinese. It emphasizes practical approaches to enhance intrinsic motivation, thereby improving learning efficacy. By focusing on these strategies, educators can better support students in achieving higher levels of engagement and success in language learning. The study aims to provide insights into how intrinsic motivation can be cultivated and sustained over time, leading to more effective language acquisition.

2. Theoretical Correlation between Self-Determination Theory and Second Language Learning

2.1. Core Objectives of Motivation-Driven Chinese Learning

The primary goal of motivation-driven Chinese language learning is to develop learners who are autonomous, self-directed, and culturally aware, achieving high levels of language proficiency while maintaining continuous engagement and a positive attitude towards learning. By integrating the principles of Self-Determination Theory, educational practices aim to help learners internalize their learning objectives, allowing them to view their progress as meaningful and personally significant. Through structured challenges and adaptive support, learners gain a sense of competence and accomplishment. Collaborative tasks and meaningful interactions are designed to enhance their sense of connection with peers and instructors. These objectives collectively aim to transform learners from passive recipients of information into active participants who engage both cognitively and emotionally with the language. This engagement fosters the development of critical thinking, problem-solving skills, and cultural sensitivity [1]. Beyond linguistic competence, motivation-driven learning promotes metacognitive reflection, self-regulation, and a proactive approach to lifelong language acquisition. This ensures that learners not only achieve short-term proficiency but also maintain their interest and engagement with the Chinese language and culture over the long term. By focusing on these comprehensive educational strategies, learners are better equipped to navigate the complexities of language learning and cultural understanding.

2.2. Educational Attributes of Intrinsic Motivation in Language Learning

Intrinsic motivation in second language acquisition is characterized by sustained engagement, enjoyment of the learning process, and self-regulated learning behaviors. Learners who are intrinsically motivated tend to immerse themselves in authentic language experiences, explore linguistic structures creatively, and persist through challenges without the need for external pressure. In the context of learning the Chinese language, intrinsic motivation significantly enhances various dimensions of proficiency. These include vocabulary retention, tonal and phonetic accuracy, character writing, reading comprehension, and oral communication skills [2, 3]. By fostering a sense of autonomy, learners gain control over their learning strategies and pacing, which enhances their engagement and ownership of the learning process. Competence-enhancing strategies, such as scaffolded exercises and progressive challenges, provide learners with

achievable milestones that reinforce their self-efficacy. Activities that support relatedness, including peer collaboration, group discussions, and teacher-student mentorship, foster social connections and a sense of belonging. Through these interconnected attributes, intrinsic motivation acts as a driving force that not only accelerates language acquisition but also cultivates a lasting interest in Chinese culture and authentic communicative competence. This comprehensive approach ensures that learners are well-equipped to navigate the complexities of language learning with confidence and enthusiasm [4].

2.3. Theoretical Foundations

The integration of Self-Determination Theory (SDT) into second language learning is grounded in well-established theories of motivation and educational psychology. Autonomy-supportive teaching is a key component, emphasizing the importance of learner choice, self-directed tasks, and flexible goal setting [4, 5]. This approach creates an environment where students feel empowered to pursue their individual learning paths, fostering a sense of ownership and personal investment in their educational journey. Competence-enhancing strategies are equally vital, focusing on providing scaffolded challenges that are appropriately tailored to the learner's current skill level. Immediate and informative feedback, along with progressive skill development, collectively reinforce learners' sense of mastery and confidence in using the target language. Additionally, relatedness-facilitating strategies play a crucial role by promoting collaborative learning, encouraging peer interaction, and fostering positive teacher-student relationships. These strategies enhance motivation through social support and a shared sense of purpose. Together, these theoretical foundations inform instructional design and intervention strategies that activate intrinsic motivation, improve sustained engagement, and optimize learning outcomes in Chinese language acquisition [5, 6]. By systematically aligning teaching practices with SDT principles, educators can create a holistic learning environment where cognitive, affective, and social dimensions of language learning are simultaneously nurtured, supporting both linguistic proficiency and intercultural competence.

3. Mechanisms of the Role of Intrinsic Motivation in Chinese Learning

3.1. Autonomy-Support Mechanism

Learner autonomy is a fundamental aspect of motivation-driven Chinese learning, facilitated through flexible task selection, project-based activities, and personalized learning pathways [7, 8]. By offering students meaningful choices in their learning activities, autonomy-supportive mechanisms empower learners to take control of their language acquisition process. This approach aligns tasks with personal interests, goals, and learning preferences, thereby fostering intrinsic motivation. It encourages self-directed exploration, goal-setting, and strategic decision-making in both linguistic and cultural domains. For instance, learners can choose topics for oral presentations, design culturally themed projects, or select reading materials that resonate with their personal or professional interests. Over time, these autonomy-supportive practices help cultivate self-regulation, sustained engagement, and a long-term commitment to learning. Additionally, they encourage learners to reflect on their progress, adapt strategies, and engage in continuous self-improvement. This process not only enhances language skills but also promotes a deeper understanding of cultural contexts, ultimately leading to a more holistic and enriching learning experience.

3.2. Competence Enhancement Mechanism

The perception of competence is fundamental to maintaining intrinsic motivation, as learners are more likely to persist in tasks when they recognize their progress and capabilities. Competence-enhancing mechanisms involve providing appropriately challenging tasks, timely and specific feedback, and structured opportunities to demonstrate skill mastery. In the context of Chinese language learning, this can include

tiered vocabulary exercises that gradually increase in complexity, incremental character writing tasks that develop accuracy and fluency, and structured speaking and listening practice tailored to students' proficiency levels. Immediate feedback, whether from teachers, peers, or AI-assisted systems, allows learners to correct errors, consolidate knowledge, and gain confidence in their abilities. By consistently reinforcing learners' sense of achievement and capability, these mechanisms not only sustain motivation but also promote incremental skill development. This encourages learners to tackle increasingly complex linguistic and cultural challenges with confidence and persistence. Furthermore, the integration of technology in providing feedback and tracking progress can enhance the learning experience, making it more interactive and personalized, thus fostering a deeper engagement with the language learning process [3, 9].

3.3. Relatedness and Social Interaction Mechanism

Relatedness, which refers to the sense of connection and belonging within the learning environment, is crucial for maintaining intrinsic motivation. Social interaction mechanisms, such as collaborative projects, group discussions, peer review, cultural exchange activities, and teacher-student mentorship, are instrumental in strengthening relational bonds and cultivating supportive learning communities. In the context of Chinese learning, these mechanisms allow learners to practice language collaboratively, delve into cultural topics collectively, and inspire each other through shared goals and achievements. For example, learners might engage in group presentations on traditional festivals, participate in peer feedback sessions on writing assignments, or collaborate on intercultural dialogue simulations. By fostering meaningful social connections, relatedness mechanisms enhance learners' emotional investment and promote cooperative learning. This creates a sense of shared purpose, which collectively reinforces intrinsic motivation and engagement in both language and cultural learning. Furthermore, these interactions provide a platform for learners to develop critical thinking and communication skills, which are essential for their overall academic and personal growth.

3.4. Motivation Feedback and Reflection Mechanism

Intrinsic motivation is further reinforced when learners have the ability to monitor their own progress, receive constructive feedback, and engage in reflective practices. Motivation feedback and reflection mechanisms can include self-assessment exercises, AI-assisted evaluation systems, reflective journals, and guided learning portfolios. These tools empower learners to internalize their achievements, identify areas that require improvement, and adjust their strategies for future learning activities. In the context of learning Chinese, students can track their vocabulary acquisition, monitor pronunciation and tonal accuracy, or reflect on cultural insights gained from projects and discussions. Through iterative cycles of feedback and reflection, learners enhance their autonomy, reinforce their perception of competence, and maintain sustained engagement. This mechanism not only consolidates linguistic and cultural skills but also promotes metacognitive awareness. It encourages learners to become adaptive, self-regulated, and intrinsically motivated participants in their own language learning journey. By fostering a deeper understanding of their learning processes, students are better equipped to navigate the complexities of language acquisition and cultural appreciation.

4. Current Situation and Challenges in Motivational Strategies for Chinese Learning

4.1. Overview of Application Status

Currently, the integration of motivational strategies in Chinese as a second language instruction is characterized by partial and uneven implementation. Many classrooms focus predominantly on external incentives, structured curricula, and performance-based assessments, rather than fostering intrinsic motivation. Although some educational institutions have introduced innovative approaches such as project-based learning, interactive activities, and culturally themed exercises, these initiatives are often isolated

and not fully leveraged to sustain intrinsic motivation [10–12]. Consequently, many learners continue to depend on extrinsic rewards, such as grades or teacher recognition, which limits their capacity to develop self-directed learning habits. Additionally, the effectiveness of these practices is constrained by limited teacher training in motivation-centered pedagogy and a lack of systematic frameworks for integrating learner-centered strategies. In practice, intrinsic motivation is often inadequately cultivated, and opportunities for autonomous, interest-driven learning are minimal. As a result, while the pedagogical environment supports language acquisition to some extent, it does not fully activate learners' internal drive, curiosity, and long-term engagement with the Chinese language and culture. This situation presents a significant challenge for educators aiming to enhance the motivational landscape of Chinese language learning, necessitating a more comprehensive and integrated approach to teaching strategies.

4.2. Analysis of Prominent Challenges

Several prominent challenges hinder the effective implementation of motivation-driven Chinese learning. Firstly, learner engagement often suffers due to an over-reliance on rote memorization and repetitive exercises. These traditional methods fail to stimulate interest or foster a sense of ownership among learners. Secondly, there is a lack of sufficient opportunities for autonomous practice, personalized goal setting, and project-based learning. This deficiency reduces learners' perception of autonomy and control over their progress, which is crucial for maintaining motivation. Thirdly, the scarcity of culturally rich and contextually meaningful learning materials limits learners' ability to connect with the cultural dimensions of the language. This limitation reduces the motivational relevance of the learning process. Teachers also face challenges in balancing curriculum requirements, assessment standards, and the integration of autonomy-supportive pedagogies. This creates tension between instructional goals and motivational objectives. Furthermore, motivational decay over time, diverse learner backgrounds, and varying levels of prior proficiency further complicate sustained engagement. Addressing these challenges requires a systematic approach informed by Self-Determination Theory. This approach should integrate support for autonomy, competence, and relatedness into curriculum design, instructional practice, and assessment. Such integration ensures that learners remain consistently engaged, self-regulated, and intrinsically motivated throughout their learning journey.

5. Path Optimization for Intrinsic Motivation and Chinese Learning Enhancement

5.1. Autonomy-Supportive Teaching Path

To effectively foster learner autonomy, curricula should be designed with flexible structures that integrate choice-driven activities, project-based tasks, and topic selection opportunities that reflect students' personal interests, cultural backgrounds, and learning goals. Teachers can develop personalized learning pathways by offering differentiated assignments, allowing learners to set individual objectives, pursue self-directed projects, and select tasks that resonate with their intrinsic motivations. Autonomy-supportive practices extend beyond simple choice; they involve scaffolding learners' decision-making skills, guiding them in planning and monitoring their own learning progress, and encouraging reflective self-assessment [13, 14]. Open-ended assignments, culturally meaningful projects, and opportunities for learner-led exploration can cultivate curiosity, creativity, and initiative, transforming learners from passive recipients into active agents of their own learning. For example, learners might choose to research a traditional Chinese festival, design a multimedia presentation, or develop a short story incorporating cultural elements, thereby exercising both linguistic and cultural autonomy. By consistently integrating such strategies, educators can create a learning environment where learners perceive ownership of their progress, actively engage in tasks, and internalize the value of Chinese language and culture. Furthermore, these practices help in building a

supportive educational framework that not only enhances language skills but also deepens cultural understanding, thereby fostering a more holistic educational experience.

5.2. Competence Development Path

Perceptions of competence play a crucial role in maintaining intrinsic motivation and necessitate intentional instructional strategies. To bolster learners' confidence and mastery of skills, educators can employ scaffolded instruction, progressively challenging tasks, and immediate, constructive feedback. Teachers might design tiered exercises that gradually increase in complexity, ranging from basic vocabulary acquisition to advanced reading comprehension and nuanced oral expression. Additionally, structured tasks can focus on tonal accuracy, character writing, and conversational fluency. Recognizing achievements through peer feedback, AI-assisted assessments, or teacher evaluations provides learners with tangible evidence of their progress, thereby reinforcing their self-efficacy. By integrating performance tracking tools, learners can visualize their incremental improvements, which motivates them to continue their efforts and build resilience when faced with challenging tasks. For example, learners might engage in a series of speaking drills monitored by AI, which offers instant feedback on pronunciation and intonation. They could also undertake progressively complex writing assignments to build mastery of Chinese characters. Through consistent success and targeted support, learners consolidate their competence, enhance intrinsic motivation, and develop the confidence necessary for sustained engagement and continuous language improvement. This comprehensive approach ensures that learners are well-equipped to meet the demands of language acquisition.

5.3. Social Interaction and Relatedness Path

Strengthening relatedness through collaborative learning environments is crucial for motivating learners and fostering a sense of belonging. Social interaction mechanisms, such as peer projects, small group discussions, teacher mentorship, and cultural exchange activities, create networks of support and encourage cooperative engagement. In Chinese learning contexts, these strategies can involve collaborative research on cultural topics, co-creation of multimedia content, group presentations, or role-playing exercises simulating real-life intercultural communication. Such collaborative experiences not only enhance communicative competence but also deepen learners' cultural understanding and emotional engagement. As students negotiate meaning, provide mutual feedback, and share insights in authentic or simulated social contexts, they develop essential skills for effective communication and cultural awareness. By fostering relational bonds, shared goals, and social accountability, relatedness mechanisms cultivate intrinsic motivation, encourage cooperative learning, and build a classroom culture in which learners are motivated by personal growth and the collective achievements of the group [15–17]. Teachers can further reinforce this pathway by facilitating peer mentoring, encouraging group reflection, and providing platforms for collaborative problem-solving. This approach creates sustained social engagement and a supportive learning community, which is vital for the holistic development of learners in an increasingly interconnected world.

5.4. Sustainable Motivation and Reflective Practice Path

Maintaining intrinsic motivation over the long term necessitates the implementation of mechanisms for continuous feedback, self-assessment, and structured reflection. Engaging in reflective activities such as maintaining learning journals, compiling progress portfolios, and utilizing AI-assisted monitoring systems enables learners to effectively track their performance. These tools help in identifying strengths and weaknesses, allowing for real-time adjustments to learning strategies. Motivational scaffolding, which includes setting incremental goals, recognizing accomplishments, and providing timely encouragement, plays a crucial role in keeping learners engaged and helping them

overcome any plateaus or setbacks they may encounter. Reflective practice is essential in cultivating metacognitive awareness, which empowers learners to analyze their learning processes, plan future actions, and internalize a sense of responsibility for their own development. For instance, students can reflect on cultural projects, evaluate oral presentations, or use AI analytics to monitor their progress in reading comprehension, thereby making informed adjustments to their learning strategies. By integrating reflective practice with strategies that support autonomy and competence-building, learners develop resilience, adaptability, and sustained intrinsic motivation [13]. This pathway ensures long-term language development, supports the consolidation of linguistic and cultural skills, and nurtures self-regulated learners who are capable of integrating Chinese language knowledge with practical, culturally informed applications.

6. Conclusion

This study systematically examines the role of intrinsic motivation, based on self-determination theory, in second language learners' Chinese learning. Autonomy, competence, and relatedness mechanisms are identified as key drivers of motivation and effective learning. Despite initial progress, challenges such as low engagement, insufficient autonomous practice, and motivational decay remain. Optimization paths include autonomy-supportive teaching, competence enhancement, social interaction facilitation, and sustainable reflective practices. The study provides a theoretical and practical framework for motivation-driven Chinese learning, offering strategies to enhance learner engagement, language proficiency, and cultural understanding, with significant implications for second language acquisition research and pedagogy. Furthermore, the findings underscore the importance of creating learning environments that foster intrinsic motivation, which can lead to more profound and sustained language acquisition. Future research should explore the long-term effects of these motivational strategies and investigate their applicability across different cultural contexts and language learning settings. By addressing these areas, educators and researchers can better support learners in achieving higher levels of language proficiency and cultural competence.

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