

Insight Into the Internal and External Motivation of Mongolian Students

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ABSTRACT:

Academic motivation is a critical determinant of students' academic performance, engagement, persistence, and overall educational success. Insights into students' extrinsic and intrinsic motivation can assist educators in identifying at-risk learners, creating more supportive learning environments, and facilitating educational policy and decision-making.

A total of 415 undergraduate students from three schools (School of Social Sciences and Humanities, School of Natural Science, School of Engineering and Technology) of the National University of Mongolia participated in the study. We measured the tendency of intrinsic motivation, extrinsic motivation, and amotivation across gender and fields of study using the Academic Motivation Scale (AMS-C-28; Vallerand et al., 1992), a widely used instrument grounded in Self-Determination Theory, hence descriptive statistics were applied.

The findings revealed that 60.2% of participants demonstrated high levels of academic motivation, whereas approximately one-third (32.6%) exhibited lower levels of motivation that may require educational attention and support. Furthermore, students reported lower levels of intrinsic motivation than extrinsic motivation, suggesting a tendency to engage in learning primarily for external rewards and outcomes rather than for personal interest, intellectual curiosity, and self-development. Although no substantial differences in overall motivation were observed across gender and fields of study, variations were identified within specific motivation categories.

The practical significance of this study lies in its contribution to understanding the motivational profiles of Mongolian undergraduate students. The findings provide evidence-based insights for educators and university administrators seeking to enhance student engagement, strengthen intrinsic motivation, and

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Introduction

Academic motivation is widely recognized as a key determinant of students' engagement, persistence, academic achievement, and overall success in higher education. Beyond influencing academic performance, motivation shapes students' willingness to invest effort, overcome challenges, and engage in lifelong, self-directed learning. Consequently, understanding the factors that motivate students has become increasingly important for educators and higher education institutions seeking to improve learning outcomes and student well-being.

Self-Determination Theory (SDT) distinguishes between intrinsic motivation, in which learning is driven by personal interest, curiosity, and enjoyment, and extrinsic motivation, in which learning is motivated by external outcomes such as grades, recognition, or future career opportunities (Ryan & Deci, 2000, 2017). These motivational orientations are associated with different educational outcomes. Intrinsic motivation has consistently been linked to deeper learning strategies, greater academic engagement, higher retention, improved academic achievement, and enhanced psychological well-being. In contrast, students whose learning is primarily driven by external rewards or pressures are more likely to adopt surface learning approaches and may experience higher levels of academic anxiety and stress. Examining both intrinsic and extrinsic motivation therefore provides valuable insight into students' learning behaviors and the factors that facilitate or hinder academic success.

Assessing students' motivational orientations also has important practical implications. Identifying students with low intrinsic motivation or high levels of amotivation enables universities to develop evidence-based interventions,

strengthen academic support services, and create learning environments that promote engagement, persistence, and long-term educational success. Furthermore, understanding students' motivational profiles can inform institutional policies and curriculum design aimed at fostering autonomous learning and preparing graduates for successful careers.

Although academic motivation has been extensively investigated internationally, empirical evidence from Mongolia remains limited. Existing studies have primarily examined motivation within one specific discipline or a small student sample. For example, Bolormaa Sh. (2017) investigated intrinsic and extrinsic motivation for learning English among 58 students from a single branch of the National University of Mongolia (NUM), while Solongo Shagdarsuren, Ulambayar Batchuluun, and Daniel Lindbergh Lang (2020) explored motivational orientations and demotivating factors among 22 English-major students at NUM's Erdenet Branch. Although these studies provide useful preliminary insights, their limited sample sizes and disciplinary focus restrict the generalizability of their findings to the broader undergraduate population.

To address this gap, the present study examined academic motivation among 415 undergraduate students from the School of Social Sciences and Humanities, the School of Natural Sciences, and the School of Engineering and Technology at the National University of Mongolia. Academic motivation was assessed using the Academic Motivation Scale–College Version (AMS-C28), developed by Vallerand et al. (1992). Grounded in Self-Determination Theory, the AMS-C28 is one of the most extensively validated instruments for measuring academic motivation because it distinguishes multiple dimensions of intrinsic motivation, extrinsic motivation, and

amotivation. This multidimensional framework enables researchers to examine not only the overall level of students' motivation but also the specific motivational orientations that influence academic engagement, persistence, achievement, psychological well-being, and future career development.

By providing a comprehensive assessment of undergraduate students' motivational profiles, this study contributes to the limited body of research on academic motivation in Mongolia. The findings are expected to provide evidence that can support educators, university administrators, and policymakers in developing strategies to strengthen students' intrinsic motivation, improve academic engagement, and enhance student success in higher education.

Purpose of the Study

The present study aimed to examine the academic motivation of undergraduate students at the National University of Mongolia by assessing seven dimensions of motivation derived from the Academic Motivation Scale–College Version (AMS-C28; Vallerand et al., 1992). Specifically, the study investigated students' intrinsic motivation, extrinsic motivation, and amotivation and explored whether motivational profiles differed according to gender and field of study.

This study addresses a significant gap in the literature on academic motivation in Mongolia, where empirical evidence on undergraduate students' motivational orientations remains limited. By providing a comprehensive assessment of students' motivational profiles, the findings contribute to a better understanding of the factors that influence academic engagement and may inform the development of evidence-based strategies to enhance student learning, academic success, and well-being.

The study was guided by the following research questions:

- What are the levels of intrinsic motivation, extrinsic motivation, and amotivation among undergraduate students at the National University of Mongolia?

- Do academic motivation levels differ according to students' gender and field of study?

Grounded in Self-Determination Theory (Ryan & Deci, 2017), this study conceptualizes academic motivation as comprising intrinsic motivation, extrinsic motivation, and amotivation. Previous research has consistently demonstrated that intrinsic motivation is associated with higher academic achievement, deeper learning, greater psychological well-being, and stronger academic persistence (Black & Deci, 2000; Boggiano et al., 1993; Levesque et al., 2004; Soenens & Vansteenkiste, 2006; Vansteenkiste et al., 2006). Conversely, low motivation or amotivation has been linked to poorer academic outcomes, including procrastination, disengagement, reduced academic self-confidence, and an increased risk of withdrawal from higher education (Abdolrezaipoor et al., 2023; Berdida, 2023; Shakurnia et al., 2015; Wang, 2019). These findings underscore the importance of assessing students' motivational orientations to identify those who may benefit from targeted educational support and interventions.

Literature Review

Academic motivation is considered one of the most important determinants of students' success in higher education because it influences how they approach learning, respond to academic challenges, and persist toward achieving educational goals. It is generally understood as the internal process that energizes, directs, and maintains behavior related to learning and academic achievement. Students with higher levels of motivation are more likely to participate actively in learning, invest sustained effort, and demonstrate greater resilience when encountering academic difficulties (Harmer, 1991; Parsons et al., 2001). Although the concept has been examined from different theoretical perspectives, there is broad agreement that motivation is essential for effective learning and long-term educational success. Early studies in language education also demonstrated that learners' attitudes, goals, and perceptions of the learning environment influence motivation and

academic outcomes, illustrating the broad applicability of motivational theories across educational contexts (Gardner, 1982; Lightbown & Spada, 1999).

Among the theoretical frameworks proposed to explain academic motivation, Self-Determination Theory (SDT) has become one of the most influential in educational research (Deci & Ryan, 1985; Ryan & Deci, 2000, 2017). SDT views motivation as a continuum that differs according to the extent to which behavior is self-determined. At one end of the continuum, intrinsic motivation reflects participation in learning because it is personally enjoyable, interesting, or intellectually satisfying. At the other end, extrinsic motivation reflects engagement in learning for external reasons, such as obtaining good grades, receiving recognition, or improving future employment opportunities. SDT further proposes that extrinsic motivation is not a single construct but includes several forms that vary according to the degree to which external goals have been internalized. Consequently, students who perceive academic activities as personally valuable may demonstrate high levels of engagement even when their initial motivation originates from external goals (Ryan & Deci, 2000, 2017).

A substantial body of research has shown that the quality of students' motivation is closely related to educational outcomes. Students with stronger intrinsic motivation are more likely to employ deep learning strategies, maintain sustained academic engagement, achieve higher academic performance, and report greater psychological well-being than students whose motivation depends primarily on external rewards (Black & Deci, 2000; Levesque et al., 2004; Soenens & Vansteenkiste, 2006; Vansteenkiste et al., 2006). Gardner's (1982) socio-educational model similarly emphasized that successful learning depends not only on learners' willingness to invest effort but also on their emotional attitudes and desire to achieve mastery. Likewise, Krashen's Affective Filter Hypothesis suggests that emotional factors such as motivation, self-confidence, and anxiety influence learning by either facilitating or restricting students' ability to

acquire new knowledge (Krashen, 1988; Lightbown & Spada, 1999). Together, these perspectives highlight that academic success depends not only on cognitive ability but also on students' motivational and emotional experiences.

Research has also demonstrated that the educational environment plays an important role in shaping motivation. Learning environments that promote autonomy, provide meaningful choices, encourage competence, and foster supportive relationships between teachers and students are more likely to strengthen intrinsic motivation and encourage sustained engagement in learning. In contrast, excessive reliance on external rewards, controlling instructional practices, performance pressure, or rigid deadlines may reduce students' sense of autonomy and weaken intrinsic motivation (Amabile et al., 1976; Deci, 1971; Deci & Cascio, 1972; Lepper et al., 1973; Reeve & Deci, 1996; Ryan & Deci, 2000). These findings suggest that the quality of motivation is shaped not only by individual characteristics but also by the educational context in which learning occurs.

Recent evidence continues to reinforce the relevance of Self-Determination Theory in higher education. Howard et al. (2021), in a comprehensive meta-analysis involving more than 223,000 students, found that autonomous forms of motivation consistently predicted higher academic achievement, stronger engagement, and greater psychological well-being. Their findings further indicated that identified regulation, an internalized form of extrinsic motivation, was strongly associated with students' persistence, whereas externally regulated motivation demonstrated comparatively weaker relationships with academic success. Conversely, amotivation emerged as a consistent predictor of disengagement, lower academic performance, and reduced persistence. These findings demonstrate the importance of distinguishing among different forms of motivation when investigating students' educational experiences.

Similarly, recent reviews of educational interventions have shown that instructional practices based on Self-Determination Theory effectively enhance students' motivation by supporting their psychological needs for autonomy, competence, and relatedness (Wang et al., 2024). Educational strategies that encourage active participation, provide constructive feedback, and establish supportive learning environments promote autonomous motivation and improve both academic engagement and achievement. These findings suggest that motivation is not a fixed personal characteristic but can be strengthened through appropriate educational practices.

The influence of academic motivation extends beyond university performance. Participation in higher education has been associated with improved employment prospects, increased earning potential, career advancement, and greater overall well-being (Albert et al., 2010; Field, 2012; Grotlüschen et al., 2019; ILO, 2021; Psacharopoulos, 2006; Wheeler, 2019). Moreover, recent studies indicate that students with stronger autonomous motivation demonstrate greater career adaptability, resilience, self-regulated learning, and readiness for lifelong learning, whereas students experiencing amotivation are more likely to report procrastination, disengagement, poorer mental health, and an increased risk of leaving university before completing their studies (Abdolrezapour et al., 2023; Berdida, 2023; Howard et al., 2021; Wang, 2019). These findings emphasize that motivation influences not only academic outcomes but also graduates' future professional development.

Students' motivational orientations are shaped by multiple personal and contextual factors, including age, gender, cultural background, family responsibilities, and career aspirations (Rubenson, 2018; Vaculíková et al., 2020). Consequently, assessing intrinsic motivation, extrinsic motivation, and amotivation provides valuable information for identifying students who may require additional educational support and for designing interventions that foster academic engagement, persistence, and success.

Because the Academic Motivation Scale–College Version (AMS-C28; Vallerand et al., 1992) distinguishes multiple dimensions of motivation within the Self-Determination Theory framework and has demonstrated strong psychometric properties across diverse higher education settings, it provides an appropriate instrument for examining undergraduate students' motivational profiles.

Despite the growing international literature on academic motivation, empirical evidence from Mongolia remains limited. Existing studies have generally focused on *one specific* academic discipline or relatively small student samples, restricting the generalizability of their findings. Therefore, further research involving larger and more diverse undergraduate populations is needed to provide a comprehensive understanding of students' motivational orientations in Mongolian higher education. Such evidence can inform institutional policies and educational practices aimed at strengthening student motivation, improving learning experiences, and supporting both academic achievement and long-term career success.

Research Methods

Instrument

Academic motivation was assessed using the Academic Motivation Scale–College Version (AMS-C28) developed by Vallerand et al. (1992). The instrument is based on Self-Determination Theory and comprises 28 items measuring seven dimensions of academic motivation: intrinsic motivation to know (IMK), intrinsic motivation toward accomplishment (IMA), intrinsic motivation to experience stimulation (IMS), identified regulation (EMID), introjected regulation (EMIN), external regulation (EME), and amotivation (AM).

Because no validated Mongolian version of the AMS-C28 was available, the questionnaire was translated following a forward–backward translation procedure. First, the three authors independently translated the original English version into Mongolian and reached consensus on a preliminary version. Subsequently, an independent panel of three bilingual experts from

the Foreign Language Center at the National University of Mongolia translated the Mongolian version back into English. The back-translated version was compared with the original questionnaire to ensure semantic and conceptual equivalence, and minor revisions were made where necessary.

The internal consistency of the translated instrument was evaluated using Cronbach's alpha coefficients. All subscales demonstrated acceptable reliability, with Cronbach's alpha values ranging from 0.70 to 0.80, indicating satisfactory internal consistency (Ursachi et al., 2015). The reliability coefficients for each subscale are presented in Table 1.

Participants and Procedure

Participants were undergraduate students enrolled at the National University of Mongolia. An invitation to participate voluntarily in the study was distributed through instructors teaching the Academic English III course three days before data collection. Initially, 487 students expressed interest in participating.

Data collection was conducted in a university lecture hall. Before completing the questionnaire, participants were informed about the purpose of the study, the voluntary nature of participation, the confidentiality of their responses, and the anonymity of the data. Participants completed the questionnaire individually within approximately 15–20 minutes. In addition to the AMS-C28 items, demographic information, including age, gender, and field of study, was collected.

Following data screening, incomplete questionnaires and responses identified as outliers were excluded from the analysis. The final sample consisted of 415 undergraduate students, including 112 males (27.0%) and 303 females (73.0%). Participants were distributed across four age groups: 16–17 years ($n = 41$), 18–19 years ($n = 230$), 20–21 years ($n = 99$), and 22 years or older ($n = 45$). The sample represented three academic fields: Social Sciences and Humanities ($n = 286$), Natural Sciences ($n = 57$), and Engineering and Technology ($n = 72$).

Ethical Considerations

At the time of data collection, the National University of Mongolia had not established an Institutional Review Board; therefore, formal ethical approval was not required. Participation was entirely voluntary, and informed oral consent was obtained from all participants before data collection. Participants were informed that their responses would remain anonymous, would be treated confidentially, and would be used solely for research purposes.

Data Analysis

Data were analyzed using IBM SPSS Statistics version 26.0. Descriptive statistics were calculated to summarize participants' demographic characteristics and levels of academic motivation. Academic motivation was assessed across the seven AMS-C28 subscales, and the Self-Determination Index (SDI) was computed using the formula proposed by Vallerand et al. (1992):

$$SDI = 2 \times [(IMK + IMA + IMS)/3] - EMID - [(EMIN + EME)/2] - 2 \times AM$$

Based on previous studies (Giang & Thảo, 2020; Tran et al., 2019), SDI scores were classified into five categories: very low (–18.00 to –10.80), low (–10.79 to –3.60), moderate (–3.59 to 3.60), high (3.61 to 10.80), and very high (10.81 to 18.00).

Descriptive statistics were used to examine levels of intrinsic motivation, extrinsic motivation, and amotivation. Differences in motivational profiles according to gender and field of study were also analyzed.

Results

The study examined the tendency of academic motivation of undergraduate students at the National University of Mongolia by assessing intrinsic motivation, extrinsic motivation, and amotivation using the Academic Motivation Scale–College Version (AMS-C28). Overall academic motivation was summarized using the Self-Determination Index (SDI), calculated according to the formula proposed by Vallerand et al. (1992):

$$SDI = 2 \times [(IMK + IMA +$$

IMS)/3] – EMID – [(EMIN + EME)/2] – 2 × AM

Following previous studies (Giang & Thảo, 2020; Tran et al., 2019), SDI scores were classified into five categories: very low (–18.00 to –10.80), low (–10.79 to –3.60), moderate (–3.59 to 3.60), high (3.61 to 10.80), and very high (10.81 to 18.00).

The observed SDI scores ranged from –13.42 to 14.38, falling within the theoretical range of –18 to +18. The lowest observed score was 4.58 points above the theoretical minimum, while the

highest observed score was 3.62 points below the theoretical maximum. These results indicate that participants exhibited a broad range of academic motivation, although none reached the extreme ends of the theoretical SDI continuum (Table 1).

Subsequent analyses examined the distribution of students across the five SDI categories, levels of intrinsic motivation, extrinsic motivation, and amotivation, and differences in motivational profiles according to gender and field of study.

Table 1. Academic motivation scales across seven subscales

		SDI	Intrinsic motivation			Extrinsic motivation			amotivation
			to know	to accomplish	to experience stimulation	identified regulation	introjected regulation	external regulation	
N	Valid	415	415	415	415	415	415	415	415
	Missing	0	0	0	0	0	0	0	0
Mean		5.1913	5.2970	4.3795	3.9554	5.8958	4.4313	5.8886	2.3163
Std. Error of Mean		.22218	.06348	.06405	.06866	.05289	.07055	.04917	.06891
Median		6.1250	5.5000	4.2500	4.0000	6.2500	4.5000	6.0000	2.0000
Mode		8.13	6.00	3.50	4.00	7.00	5.50	7.00	1.00
Std. Deviation		4.52616	1.29318	1.30481	1.39869	1.07739	1.43712	1.00170	1.40376
Variance		20.486	1.672	1.703	1.956	1.161	2.065	1.003	1.971
Range		27.79	6.00	6.00	6.00	6.00	6.00	5.75	6.00
Minimum		-13.42	1.00	1.00	1.00	1.00	1.00	1.50	1.00
Maximum		14.38	7.00	7.00	7.00	7.00	7.00	7.25	7.00
Sum		2154.38	2198.25	1817.50	1641.50	2446.75	1839.00	2443.75	961.25

The calculated Self-Determination Index (SDI) scores were classified into five levels of academic motivation. The distribution of participants across these categories is presented in Table 2.

Table 2. The Self-Determination Index (SDI) ranges across five academic motivation levels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very high ($10.81 \leq \text{SDI} \leq 18.00$)	30	7.2	7.2	100.0
	High ($3.61 \leq \text{SDI} \leq 10.80$)	250	60.2	60.2	92.8
	Medium ($-3.59 \leq \text{SDI} \leq 3.60$)	121	29.2	29.2	32.5
	Low ($-10.79 \leq \text{SDI} \leq -3.60$)	12	2.9	2.9	3.4
	Very low ($-18.00 \leq \text{SDI} \leq -10.80$)	2	.5	.5	.5
	Total	415	100.0	100.0	

The distribution of participants across the five Self-Determination Index (SDI) categories is presented in Table 2. Most respondents demonstrated high academic motivation (60.2%), followed by very high academic motivation (7.2%). In contrast, approximately one-third of the sample (32.5%) fell within the moderate, low, or very low motivation categories.

To further examine students' motivational orientations, intrinsic motivation, extrinsic motivation, and amotivation were assessed across the seven AMS-C28 subscales. As shown in Table 1, the overall mean score for intrinsic motivation was 4.54 (SD = 1.33), whereas the mean score for extrinsic motivation was 5.40 (SD = 1.17). The mean score for amotivation was 2.31 (SD = 1.40). Overall, students reported higher levels of extrinsic motivation than intrinsic motivation.

Academic motivation was also examined according to gender (Table 3). Overall, motivational profiles were similar for male and female students. However, differences were observed within specific motivation categories. Among female students, 65.3% were classified as having high academic motivation, compared with 46.4% of male students. In the very low motivation category, 0.7% of female students were represented, whereas no male students were classified in this category.

These findings indicate that most undergraduate students demonstrated relatively high levels of academic motivation. However, extrinsic motivation exceeded intrinsic motivation across the sample, and only modest differences in motivation were observed according to gender.

Table 3. SDI scales by gender

			SDI range					Total
			Very low	Low	Medium	High	Very high	
Gender	male	Count	0	7	43	52	10	112
		% within Gender	0.0%	6.3%	38.4%	46.4%	8.9%	100.0%
		% within SDI_0314_range	0.0%	58.3%	35.5%	20.8%	33.3%	27.0%
		% of Total	0.0%	1.7%	10.4%	12.5%	2.4%	27.0%
	female	Count	2	5	78	198	20	303
		% within Gender	.7%	1.7%	25.7%	65.3%	6.6%	100.0%

		% within SDI_0314_range	100.0%	41.7%	64.5%	79.2%	66.7%	73.0%
		% of Total	.5%	1.2%	18.8%	47.7%	4.8%	73.0%
Total	Count		2	12	121	250	30	415
	% within Gender		.5%	2.9%	29.2%	60.2%	7.2%	100.0%
	% within SDI_0314_range		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total		.5%	2.9%	29.2%	60.2%	7.2%	100.0%

Academic motivation was also examined across the three fields of study: Social Sciences and Humanities, Natural Sciences, and Engineering and Technology (Table 4). Overall, no substantial differences in academic motivation were observed among the three academic disciplines. However, some variation was evident within specific motivation categories.

Students in the Natural Sciences had the lowest proportion of respondents in the very high motivation category (3.5%), compared with students in Social Sciences and Humanities

(7.7%) and Engineering and Technology (8.3%). The majority of students in Social Sciences and Humanities (62.9%) and Natural Sciences (63.2%) were classified as having high academic motivation, whereas a smaller proportion of Engineering and Technology students (47.2%) fell into this category. In the very low motivation category, 0.3% of students in Social Sciences and Humanities and 1.4% of students in Engineering and Technology were represented, while no students from the Natural Sciences were classified in this group.

Table 4. SDI scales by field of study

			SDI range					Total
			Very low	Low	Medium	High	Very high	
Major_final	Social Science and Humanities	Count	1	7	76	180	22	286
		% within Major_final	.3%	2.4%	26.6%	62.9%	7.7%	100.0%
		% within SDI range	50.0%	58.3%	62.8%	72.0%	73.3%	68.9%
		% of Total	.2%	1.7%	18.3%	43.4%	5.3%	68.9%
	Natural Science	Count	0	1	18	36	2	57
		% within Major_final	0.0%	1.8%	31.6%	63.2%	3.5%	100.0%
		% within SDI range	0.0%	8.3%	14.9%	14.4%	6.7%	13.7%
		% of Total	0.0%	.2%	4.3%	8.7%	.5%	13.7%
		Count	1	4	27	34	6	72

	Engineering and Technology	% within Major_final	1.4%	5.6%	37.5%	47.2%	8.3%	100.0%
		% within SDI range	50.0%	33.3%	22.3%	13.6%	20.0%	17.3%
		% of Total	.2%	1.0%	6.5%	8.2%	1.4%	17.3%
Total		Count	2	12	121	250	30	415
		% within Major_final	.5%	2.9%	29.2%	60.2%	7.2%	100.0%
		% within SDI range	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	.5%	2.9%	29.2%	60.2%	7.2%	100.0%

Conclusion

This study examined the academic motivation of undergraduate students at the National University of Mongolia using the Academic Motivation Scale–College Version (AMS-C28). The findings revealed that although most students demonstrated high overall academic motivation, nearly one-third exhibited moderate to very low levels of motivation, indicating a need for targeted academic and motivational support. In addition, students reported substantially higher levels of extrinsic motivation than intrinsic motivation, suggesting that external goals currently play a greater role in shaping their academic engagement.

These findings underscore the importance of fostering learning environments that encourage students' autonomy, curiosity, and personal interest in learning. Moving beyond predominantly examination-oriented approaches toward more student-centered and inquiry-based teaching practices may help strengthen intrinsic motivation and promote deeper engagement with learning. Enhancing intrinsic motivation may also contribute to students' academic achievement, psychological well-being, and long-term career development.

The study contributes to the limited body of research on academic motivation in Mongolian higher education by providing a comprehensive assessment of undergraduate students' motivational profiles across different fields of

study. The findings have practical implications for educators, university administrators, and policymakers. Establishing institution-wide student support services, implementing evidence-based interventions to strengthen motivation, and routinely assessing students' motivational orientations may help universities improve student engagement, persistence, and academic success. Future research should investigate the educational, psychological, and sociocultural factors that shape students' motivation and examine how motivational orientations change throughout their university education.

Discussion

The findings indicate that most undergraduate students at the National University of Mongolia demonstrated relatively high levels of academic motivation. However, nearly one-third of the participants exhibited moderate to very low levels of motivation, suggesting that a substantial proportion of students may require additional academic and motivational support. This finding is important because previous research has consistently linked lower academic motivation with reduced engagement, poorer academic performance, and an increased risk of academic disengagement and dropout (Howard et al., 2021; Ryan & Deci, 2017).

A key finding of this study is that students reported higher levels of extrinsic motivation than intrinsic motivation. This suggests that many undergraduate students are motivated

primarily by external goals, such as obtaining good grades, fulfilling family or societal expectations, or improving future employment opportunities, rather than by personal interest or enjoyment of learning. Although extrinsic motivation can encourage academic effort and persistence, Self-Determination Theory argues that autonomous forms of motivation, particularly intrinsic motivation, are more strongly associated with deep learning, creativity, psychological well-being, and sustained academic success (Ryan & Deci, 2000, 2017; Howard et al., 2021). The predominance of extrinsic motivation observed in this study therefore highlights the importance of developing educational practices that strengthen students' intrinsic motivation and support autonomous learning.

Gender differences in overall academic motivation were relatively small. Female students were more frequently represented in the high academic motivation category than male students, although the overall motivational profiles of the two groups were broadly similar. This finding is generally consistent with previous research showing that gender differences in academic motivation vary across educational and cultural contexts (Vaculíková et al., 2020).

Similarly, only modest differences were observed across academic disciplines. Students enrolled in Social Sciences and Humanities and Engineering and Technology demonstrated slightly higher motivation than those studying Natural Sciences. The lower proportion of Natural Science students classified as having very high academic motivation may reflect differences in curriculum

demands, learning environments, or students' career aspirations. However, because these factors were not examined in the present study, further research is needed to identify the underlying causes of disciplinary differences in motivation.

The predominance of extrinsic motivation may also be influenced by students' educational experiences before entering university. Mongolia's examination-oriented education system places considerable emphasis on grades and standardized assessments, which may encourage students to focus on external indicators of success rather than learning driven by curiosity and personal interest. Although this explanation cannot be confirmed by the present findings, it represents an important direction for future research. Longitudinal studies examining the influence of school assessment practices, family expectations, and cultural values on students' motivational development would contribute to a more comprehensive understanding of academic motivation in Mongolia.

Overall, the findings reinforce the importance of regularly assessing students' motivational orientations in higher education. Understanding students' levels of intrinsic motivation, extrinsic motivation, and amotivation can assist universities in identifying students who may require additional support and in developing educational policies and practices that promote sustained engagement, academic success, psychological well-being, and long-term career development.

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