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**Z. Kenenbaeva** , **A. Turkmenbaev\*** ,  
**N. Musaeva** , **E. Orozaliev** 

K. Karasaev Bishkek State University, Bishkek, Kyrgyzstan

\*e-mail: 1429523@list.ru

## PSYCHOLOGICAL DETERMINANTS OF SCHOOL DISENGAGEMENT

In the context of the transformation of the educational environment and the growing psychological vulnerability of adolescents, school disengagement has become an increasingly important multidimensional phenomenon associated with academic maladjustment. The aim of this study is to identify the psychological factors of school disengagement among secondary school students and to determine the mediating role of responsibility in the relationship between different types of academic motivation and school disengagement. The main focus of the research is the analysis of motivational and self-regulatory mechanisms underlying academic alienation. The scientific significance of the study lies in clarifying the role of responsibility as an internal self-regulatory mechanism within the structure of school disengagement. The practical significance is associated with the possibility of applying the findings in the development of psychological support and intervention programs for students. The methodology is based on a quantitative research design involving 352 students from grades 7–11. Validated instruments were used, including the Multidimensional School Engagement Scale, the Brief Academic Motivation Scale, and the Responsibility in Adolescents Questionnaire. Statistical analyses included correlation and mediation analyses conducted using Jamovi software and the MedMod module. The findings demonstrated that responsibility performs a significant mediating function in the relationship between intrinsic forms of academic motivation and school disengagement. The value of the study lies in expanding the understanding of school disengagement as a result of the interaction between motivational and self-regulatory factors, as well as in substantiating responsibility as a mechanism for the internalization of academic motivation. The practical implications suggest that the prevention of school disengagement should focus not only on fostering intrinsic motivation but also on developing students' responsibility and self-regulation skills.

**Keywords:** school disengagement, academic motivation, responsibility, self-regulation, mediation analysis, adolescents.

З.Т. Кененбаева, А.Р. Түркменбаев\*,  
Н.К. Мусаева, Э.С. Орозалиев

К. Қарасаев атындағы Бішкек мемлекеттік университеті, Бішкек, Қырғызстан

\*e-mail: 1429523@list.ru

### Мектептегі немқұрайлылықтың психологиялық факторлары

Білім беру ортасының трансформациялануы және жасөспірімдердің психологиялық осалдығының артуы жағдайында мектептегі немқұрайлылық мәселесі оқу бейімделмеушілігімен байланысты көпдеңгейлі құбылыс ретінде ерекше өзектілікке ие болып отыр. Зерттеудің мақсаты – жоғары сынып оқушылары арасындағы мектептегі немқұрайлылықтың психологиялық факторларын анықтау және академиялық мотивация түрлері мен мектептегі немқұрайлылық арасындағы байланыста жауапкершіліктің медиаторлық рөлін айқындау. Зерттеудің негізгі бағыты академиялық шеттелудің мотивациялық және реттеуші механизмдерін талдаумен байланысты. Зерттеудің ғылыми маңыздылығы мектептегі немқұрайлылық құрылымындағы ішкі реттеуші механизм ретінде жауапкершіліктің рөлін нақтылауда көрінеді. Практикалық маңыздылығы алынған нәтижелерді оқушыларды психологиялық қолдау бағдарламаларын әзірлеу барысында пайдалану мүмкіндігімен анықталады. Зерттеу әдіснамасы 7–11-сыныптарда оқитын 352 оқушының қатысуымен жүзеге асырылған сандық зерттеу дизайнына негізделді. Зерттеуде Мектепке тартылудың көпөлшемді шкаласы, Академиялық мотивацияның қысқаша шкаласы және «Жасөспірімдердің жауапкершілігі» сауалнамасы сияқты валидетелген әдістемелер қолданылды. Статистикалық талдау Jamovi бағдарламасы мен MedMod модулін пайдалана отырып жүргізілген корреляциялық және медиаторлық талдауды қамтыды. Зерттеу нәтижелері жауапкершіліктің академиялық мотивацияның ішкі түрлері мен мектептегі немқұрайлылық арасындағы байланыста маңызды медиаторлық қызмет атқаратынын көрсетті. Зерттеудің құндылығы мектептегі немқұрайлылықты мотивациялық және реттеуші факторлардың өзара әрекеттесуінің нәтижесі

ретінде түсіндіруді кеңейтуде, сондай-ақ жауапкершілікті оқу мотивациясын интернализациялау механизмі ретінде негіздеуде жатыр. Зерттеу нәтижелерінің практикалық маңызы мектептегі немқұрайлылықтың алдын алу жұмыстары тек ішкі мотивацияны дамытуға ғана емес, сонымен қатар оқушылардың жауапкершілігі мен өзін-өзі реттеу дағдыларын қалыптастыруға бағытталуы тиіс екенін көрсетеді.

**Түйін сөздер:** мектептегі немқұрайлылық, академиялық мотивация, жауапкершілік, өзін-өзі реттеу, медиаторлық талдау, жасөспірімдер.

З.Т. Кененбаева, А.Р. Түркменбаев\*,  
Н.К. Мусаева, Э.С. Орозалиев

Бишкекский государственный университет имени К. Карасаева, Бишкек, Кыргызстан

\*e-mail: 1429523@list.ru

### Психологические факторы школьной безучастности

В условиях трансформации образовательной среды и роста психологической уязвимости подростков проблема школьной безучастности приобретает особую актуальность как многоуровневое явление, связанное с учебной дезадаптацией. Цель исследования – выявить психологические факторы школьной безучастности у учащихся старших классов и определить медиаторную роль ответственности в связи между типами академической мотивации и безучастностью. Основное направление работы связано с анализом мотивационных и регуляторных механизмов академического отчуждения. Научная значимость исследования заключается в уточнении роли ответственности как внутреннего регуляторного механизма в структуре школьной безучастности. Практическая значимость связана с возможностью использования результатов при разработке программ психологического сопровождения учащихся. Методология исследования основана на количественном дизайне с участием 352 учащихся 7–11-х классов. Использованы валидизированные методики: Многомерная шкала школьной вовлечённости, Краткая шкала академической мотивации и опросник «Ответственность у подростков». Статистический анализ включал корреляционный и медиаторный анализ с использованием программы Jamovi и модуля MedMod. Результаты показали, что ответственность выполняет значимую медиаторную функцию в связи между внутренними типами академической мотивации и школьной безучастностью. Ценность исследования заключается в расширении представлений о школьной безучастности как результате взаимодействия мотивационных и регуляторных факторов, а также в обосновании ответственности как механизма интернализации учебной мотивации. Практическое значение результатов состоит в том, что профилактика школьной безучастности должна быть направлена не только на развитие внутренней мотивации, но и на формирование ответственности и навыков саморегуляции у учащихся.

**Ключевые слова:** школьная безучастность, академическая мотивация, ответственность, саморегуляция, медиаторный анализ, подростки.

### Introduction

In recent years, the problem of school disengagement among adolescents has gained particular significance due to its consequences for academic achievement, psychological well-being, and social adaptation. Adolescence (Grades 7–11) represents a critical stage in the development of learning motivation, self-regulation, and personal responsibility. At this age, school demands usually become higher. Students also begin to think about future careers, while relationships with teachers and peers often change. Because of these transitions, adolescents may become less interested in learning and less emotionally involved in school activities (Salmela-Aro, 2021).

School disengagement is more than just low engagement. It may include emotional distance from

school, weaker motivation, lower value placed on academic success, and a reduced sense of belonging at school (Reeve, 2025). Previous studies have linked disengagement with poorer academic results, absenteeism, conflicts with teachers, and higher anxiety and depressive symptoms. Some students also report that learning feels less meaningful (Raniti et al., 2022). Longitudinal studies indicate that adolescents exhibiting pronounced disengagement are more likely to demonstrate behavioural problems, disciplinary violations, and earlier intentions to leave school (Ong et al., 2022).

Recent meta-analyses have shown that engagement and disengagement mediate the relationship between socio-psychological conditions and academic performance. In particular, autonomy support and positive relationships with teachers foster intrinsic motivation and engagement, whereas the absence

of these conditions leads to decreased responsibility and diminished internal self-control (Mammadov et al., 2023). These findings confirm that personal and motivational factors play a key role in maintaining or undermining academic activity.

In recent years, special attention has been paid to psychological resources of self-regulation, among which responsibility is considered an internal mechanism of academic activity (Danilova et al., 2024). Insufficient development of responsibility and the compensatory nature of self-esteem are associated with a tendency to avoid effort, reliance on extrinsic motivation, and, ultimately, manifestations of school disengagement (Wang & Grolnick, 2024). Thus, the problem of disengagement requires analysis not only of external (socio-pedagogical) factors but also of internal psychological determinants that define adolescents' resilience to alienation from learning activities.

Purpose of the study: to identify the psychological factors of school disengagement among adolescents in Grades 7–11, as well as to determine the role of motivational maladaptation and responsibility in the formation of internal alienation from learning activities.

### Literature review

The term school disengagement in contemporary psychological and pedagogical discourse corresponds to the English-language concept of school disengagement, which began to take shape in the 1980s within research on academic motivation and students' participation in the educational process. The foundations of the theoretical description of this phenomenon were laid by the American researcher John Finn, who proposed the Participation–Identification Model and demonstrated that a gradual decline in participation in school life leads to a loss of emotional attachment to school and increases the risk of premature school leaving. Later, researchers began to discuss disengagement alongside the concept of school engagement. Fredricks, Blumenfeld, and Paris (2004) described engagement as a construct with behavioural, emotional, and cognitive dimensions. From this perspective, disengagement refers to a decline in these forms of participation and involvement.

Educational and sociological research has also used related terms such as school alienation, academic disaffection, and disconnection from school. Although these terms are not identical, they describe similar tendencies, including lower participation in

school life, weaker emotional attachment to school, and reduced intrinsic motivation for learning. In Russian-language publications, these processes are often discussed under the broader label of school disengagement. During the last two decades, this topic has been studied mainly in relation to adolescent motivation, psychological well-being, and school adjustment. Findings from previous studies suggest that disengagement is linked to a combination of motivational, personal, and contextual factors. In a scoping review of longitudinal studies conducted between 2010 and 2020, Salmela-Aro (2021) reported that lower engagement and higher disengagement were associated with poorer academic outcomes, higher anxiety, and lower subjective well-being. The review also noted that adolescence is an important developmental period in which stable patterns of school involvement or withdrawal may emerge. For the present study, this is relevant because internal regulatory factors, including motivation, self-related attitudes, and responsibility, may help explain why some students remain engaged whereas others gradually withdraw from learning.

A study by Schnitzler, Holzberger, and Praetorius (2021) using latent profile analysis revealed the existence of stable clusters of students characterised by pronounced disengagement, low academic motivation, and lower levels of academic achievement. The authors stress that disengagement is a complex phenomenon accompanied by cognitive exhaustion and reduced emotional identification with school (Schnitzler et al., 2021).

In a meta-analysis by Tao, Wang, and Zhang (2022), it was shown that teacher support contributes to increased engagement and academic achievement through the formation of positive motivational orientations, indicating a mediated relationship between characteristics of the educational environment and school disengagement (Tao et al., 2022). Similar findings were reported in a meta-analysis by Mammadov, Cross, and Folsom (2023), which demonstrated that autonomy support from parents and teachers enhances students' self-regulation and reduces the likelihood of disengagement (Mammadov et al., 2023).

A significant contribution to understanding the internal motivational determinants of disengagement was made by Wang and Grolnick (2024), who, in a systematic review and meta-analysis grounded in Self-Determination Theory, showed that frustration of basic psychological needs—autonomy, competence, and relatedness—leads to increased extrinsic motivation and amotivation, which are key predic-

tors of school disengagement (Wang & Grolnick, 2024). These conclusions are supported by a meta-analysis by Howard et al. (2024), which found that a mismatch between students' basic psychological needs and the school environment increases the risk of emotional burnout and disengagement (Howard et al., 2024).

Contemporary conceptualisations further expand the understanding of disengagement through the contrasting concept of agentic engagement, which reflects students' active, agentic position in learning. In a review by Reeve (2025), disengagement is described not merely as a lack of interest but also as a decline in initiative and agency—that is, the capacity to influence one's own educational process (Reeve, 2025).

Recent population-based studies also confirm the association between disengagement and elevated psychological risks. For instance, data from an international analysis published in *Pediatrics* (2025) indicate that students demonstrating low academic engagement and pronounced disengagement are more likely to experience mental health problems, including depressive and anxiety disorders, making disengagement a significant indicator of adolescents' psychological maladjustment (Castillo et al., 2025).

Recent studies published between 2018 and 2025 indicate several recurring findings regarding school disengagement. First, disengagement includes cognitive, emotional, and behavioural components and should be assessed as a multidimensional construct. Second, lower intrinsic motivation, frustration of basic psychological needs (autonomy, competence, and relatedness), and weaker self-regulation are regularly associated with higher disengagement. Third, contextual school factors also matter. Teacher and parental autonomy support, emotionally supportive teacher–student relationships, and positive peer interaction are associated with lower disengagement levels, often through motivational pathways. Overall, current evidence suggests that school disengagement is a dynamic and multifactorial process shaped by the interaction between students' personal resources and characteristics of the educational environment.

In scientific research conducted in Russia, Kazakhstan, and Kyrgyzstan, the phenomenon of school disengagement has begun to receive scholarly attention relatively recently—primarily since the mid-2010s—following the integration of the concepts of engagement and disengagement into Russian-language psychology as indicators of students'

emotional and motivational well-being. One of the first systematic studies in this area was conducted by Osin and Rasskazova (2015), who conceptualised alienation from learning as a factor of academic burnout. The authors demonstrated that the combination of low academic motivation, experiences of meaninglessness of learning, and insufficient self-regulation forms a stable state of emotional and cognitive disengagement analogous to the Western concept of disengagement (Osin & Rasskazova, 2015).

Further development of this line of research is associated with the work of Fomina and Morosanova, who adapted a Russian-language version of the Multidimensional School Engagement Scale, confirmed its three-factor structure, and identified school disengagement as its opposing pole. Their studies showed that low levels of conscious self-regulation and personal responsibility are significant predictors of disengagement, while the dynamics of engagement largely depend on the development of regulatory skills and autonomy-oriented motivation (Morosanova et al., 2025; Fomina & Morosanova, 2020).

In parallel, a personality–motivational line of research has been developed. Lunkina and Gordeeva (2019) demonstrated that the structure of adolescents' self-esteem foundations determines the nature of their academic motivation: compensatory self-esteem is associated with external regulation and effort avoidance, whereas self-esteem grounded in competence and personal values is positively related to engagement and persistence in learning activities (Lunkina & Gordeeva, 2019). Extending this line of inquiry, Danilova et al. (2024) developed the Adolescent Responsibility Questionnaire, enabling empirical analysis of the relationships among responsibility, self-regulation, and tendencies toward disengagement (Danilova et al., 2024).

Thus, in Russian research, school disengagement is conceptualised as a complex psychological construct encompassing motivational, regulatory, and emotional components. Three interrelated trends are consistently identified: a decline in intrinsic motivation and perceived meaning of learning, deficits in self-regulation and responsibility, and emotional distancing from the learning process.

In Kazakhstan, interest in the problem of school disengagement has intensified in recent years in the context of educational system modernisation and increased attention to students' psychological well-being. The study by Winter et al. (2022) represents one of the first international projects to examine school engagement while accounting for cultural and organisational characteristics of Kazakhstani

schools. The authors proposed a contextually adapted model of school engagement incorporating social and cultural predictors of adolescents' participation in learning activities. It was found that low levels of emotional support from teachers and an emphasis on external (evaluative) regulation are associated with increased disengagement, whereas trusting relationships and a sense of classroom belonging reduce the risk of disengagement (Winter et al., 2022).

Recent analytical reports corroborate these trends. The UNICEF Kazakhstan report (2024) notes an increase in the number of students experiencing academic fatigue, declining learning motivation, and alienation from the school community, particularly in middle grades (UNICEF Kazakhstan, 2024). The authors emphasise the need to implement psychological services and programs aimed at restoring student engagement. The national report on the state of Kazakhstan's education system for 2023 (Taldau Centre, 2025) documents a downward trend in students' subjective satisfaction with the school climate and an increase in socio-emotional stress among students in transitional grades (National Report..., 2025).

In Kyrgyzstan, similar patterns are observed in a study by Jailobaeva et al. (2023), which demonstrates that deficits in interaction between schools, parents, and local communities contribute to decreased academic engagement and emotional disengagement among adolescents (Jailobaeva et al., 2023). According to the UN Annual Results Report 2023 for Kyrgyzstan (2024), levels of students' emotional engagement remain unstable: more than 40% of adolescents report a lack of interest in learning and dissatisfaction with the school climate (United Nations in Kyrgyzstan, 2024). A study conducted within the Schools2030 program (2024) showed that students who actively participate in school initiatives and project-based learning demonstrate higher levels of motivation and self-regulation, thereby reducing the risk of disengagement (Schools2030, 2024).

Overall, recent regional data from 2023–2025 indicate that school disengagement in Kazakhstan and Kyrgyzstan has a distinct socio-cultural specificity and is primarily associated with the quality of the school climate, the level of teacher support, and opportunities for students to exercise autonomy. In both countries, the need to implement comprehensive psychological support programs and to create school environments that foster participation, responsibility, and adolescents' emotional well-being is emphasised.

Synthesising the theoretical and empirical evidence presented, school disengagement can be conceptualised as the outcome of a complex interaction between motivational and personality-regulatory factors. A decline in intrinsic motivation and the predominance of external regulation create conditions for the loss of an agentic position in learning, whereas the development of responsibility promotes internal acceptance of academic demands and sustains activity even under unfavourable external conditions.

In this context, the present study conceptualises responsibility as a key psychological mechanism mediating the influence of different types of academic motivation on school disengagement. It is hypothesised that motivational maladaptation—characterised by high external motivation and low intrinsic (cognitive) motivation—reduces levels of responsibility, which in turn intensifies manifestations of disengagement.

This hypothesis was tested using mediation analysis, which made it possible to assess both direct and indirect relationships among academic motivation, responsibility, and school disengagement in adolescents from Grades 7–11.

## Materials and methods

The study involved 352 middle and high school adolescents (students in Grades 7–11) aged 13 to 18 years. The sample was balanced by gender, comprising 178 boys and 174 girls. Participants were recruited using a convenience sampling strategy with the assistance of school administrations. Participation was voluntary and anonymous, and informed parental or legal guardian consent was obtained for each student.

Data collection was conducted online using the Google Forms platform, which ensured ease of administration and minimised organisational constraints. The average time required to complete the questionnaires was approximately 25 minutes. The use of Google Forms proved to be an efficient solution for adolescent assessment.

School disengagement ( $\alpha = 0.856$ ) was assessed using the *Multidimensional School Engagement Scale* (Wang et al., 2019), adapted into Russian by T. G. Fomina and V. I. Morosanova (2020).

Academic motivation was measured using the *Short Academic Motivation Scale* (SAMS), developed by T. O. Gordeeva, O. A. Sychev, and E. N. Osin (2012). The instrument assesses cognitive (intrinsic) motivation ( $\alpha = 0.880$ ), achievement mo-

tivation ( $\alpha = 0.890$ ), introjected motivation ( $\alpha = 0.876$ ), and external motivation ( $\alpha = 0.862$ ).

Responsibility ( $\alpha = 0.897$ ) was assessed using the *Adolescent Responsibility Questionnaire*, developed by E. E. Danilova, L. A. Begunova, A. G. Lisichkina, and D. A. Andreeva (2024).

Statistical analyses were performed using *Jamovi* version 2.6.26.0 (*The Jamovi Project*, 2024). At the preliminary stage, Pearson correlation analysis ( $r$ ) was conducted to examine the direction and strength of associations among the main study variables—types of academic motivation, responsibility, and school disengagement. The correlation results confirmed the presence of statistically significant relationships consistent with the assumptions of the mediation model.

At the main stage, mediation analysis was conducted using the *MedMod* module (Mediation and Moderation Analysis) to test the hypothesis regarding the mediating role of responsibility in the relationship between different types of academic motivation and school disengagement.

In the model, four types of academic motivation—cognitive (intrinsic), achievement, introjected, and external—were specified as independent variables ( $X$ ); responsibility was specified as the mediator ( $M$ ); and school disengagement was specified as the dependent variable ( $Y$ ). Direct, indirect,

and total effects were estimated using a bootstrap procedure with 5,000 resamples and bias-corrected (BCa) 95% confidence intervals. All coefficients are reported in standardised form ( $\beta$ ). In interpreting the results, conventional criteria used in psychological research were applied: values of  $p < 0.05$  were considered statistically significant, while values in the range of  $0.05 \leq p < 0.10$  were interpreted as indicating a trend toward statistical significance, reflecting a weak but theoretically meaningful effect.

### Results and discussion

At the first stage of data analysis, Pearson’s correlation analysis was conducted to identify the direction and strength of relationships among the main study variables—types of academic motivation, responsibility, and school disengagement (see Table 1).

As shown by the data, a strong positive correlation was found between cognitive (intrinsic) motivation and achievement motivation ( $r = 0.85$ ;  $p < 0.001$ ), reflecting their shared internal orientation toward mastering learning activities. Introjected motivation was positively associated with both cognitive motivation ( $r = 0.18$ ;  $p < 0.01$ ) and external motivation ( $r = 0.50$ ;  $p < 0.001$ ), indicating a mixed structure of motivational sources among adolescents.

**Table 1**  
*Correlations between Types of Academic Motivation, Responsibility, and School Disengagement*

	1	2	3	4	5
Cognitive motivation					
Achievement motivation	0.852***				
Introjected motivation	0.179**	0.143*			
External motivation	-0.285***	-0.233***	0.503***		
School disengagement	-0.152*	-0.190**	0.171**	0.419***	
Responsibility	0.456***	0.379***	0.247***	-0.055	0.206**

Note. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

External motivation demonstrated negative correlations with cognitive motivation ( $r = -0.29$ ;  $p < 0.001$ ) and achievement motivation ( $r = -0.23$ ;  $p < 0.001$ ), as well as a positive association with school disengagement ( $r = 0.42$ ;  $p < 0.001$ ), confirming its maladaptive nature.

School disengagement was negatively correlated with cognitive motivation ( $r = -0.15$ ;  $p < 0.05$ )

and achievement motivation ( $r = -0.19$ ;  $p < 0.01$ ). In contrast, responsibility was positively associated with internal types of motivation—cognitive motivation ( $r = 0.46$ ;  $p < 0.001$ ), achievement motivation ( $r = 0.38$ ;  $p < 0.001$ ), and introjected motivation ( $r = 0.25$ ;  $p < 0.001$ )—and negatively associated with external motivation ( $r = -0.06$ ;  $p > 0.05$ ), although this relationship was not statistically significant.

Thus, the correlation analysis confirmed that internal forms of academic motivation (cognitive and achievement motivation) are associated with higher levels of responsibility and lower levels of school disengagement, whereas external motivation is linked to opposite patterns. These findings provide a rationale for selecting responsibility as a mediator of the relationship between academic motivation and school disengagement.

At the next stage of analysis, a mediation model was constructed to test the hypothesis that responsibility functions as a psychological mediator between types of academic motivation and school disengagement. Table 2 and Figure 1 present the mediation results. The model was statistically significant. Cognitive motivation was positively associated with responsibility ( $\beta=0.44$ ,  $p<0.001$ ), whereas responsibility was negatively associated with school disengagement ( $\beta= -0.32$ ,  $p<0.001$ ). The indirect effect of cognitive motivation on disengagement through responsibility was significant ( $\beta=0.14$ ,  $p=0.002$ ). In contrast, the direct effect of cognitive motivation on disengagement was not significant ( $p=0.689$ ), which suggests full mediation.

A similar pattern was observed for introjected motivation: it was positively associated with respon-

sibility ( $\beta=0.19$ ;  $p=0.006$ ) and indirectly influenced school disengagement through responsibility ( $\beta=0.06$ ;  $p=0.016$ ). The direct effect of introjected motivation on school disengagement was not statistically significant ( $p=0.105$ ), suggesting a partially mediated effect.

For achievement motivation and external motivation, the indirect effects were not statistically significant ( $p>0.05$ ); however, direct effects in opposite directions were observed. Achievement motivation was negatively associated with school disengagement ( $\beta= -0.23$ ;  $p=0.027$ ), indicating its adaptive role: the drive for success promotes engagement in learning activities independently of responsibility levels. In contrast, external motivation exerted a positive direct effect on school disengagement ( $\beta = 0.45$ ;  $p < 0.001$ ), reflecting a maladaptive type of academic motivation based on external control and avoidance of punishment.

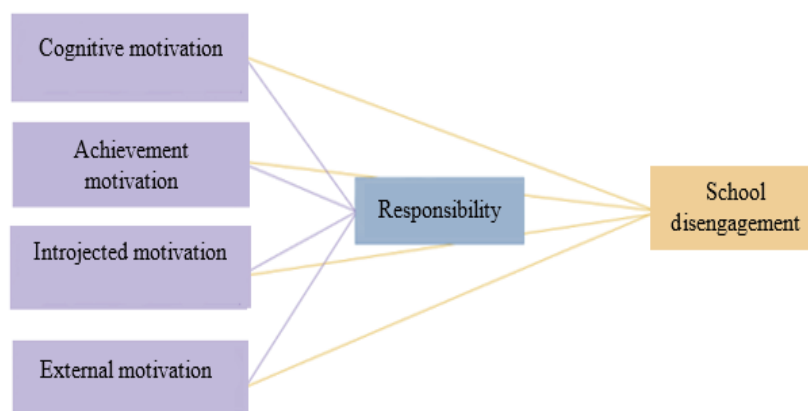
Thus, the results of the mediation analysis suggest that responsibility functions as a personal mechanism mediating the influence of internal and partially introjected motives on school disengagement. The higher the level of responsibility, the weaker the manifestations of disengagement, even in cases of reduced achievement motivation or increased external motives.

**Table 2**

*Direct, Indirect, and Total Effects of Types of Academic Motivation on School Disengagement with Responsibility as a Mediator*

Type	Effect	95% C.I. (a)		$\beta$	p
		Lower	Upper		
Indirect	cognitive motivation $\Rightarrow$ Responsibility $\Rightarrow$ school disengagement	0.0442	0.1892	0.1423	0.002
	achievement motivation $\Rightarrow$ Responsibility $\Rightarrow$ school disengagement	-0.0593	0.0445	-0.0096	0.781
	introjected motivation $\Rightarrow$ Responsibility $\Rightarrow$ school disengagement	0.0114	0.1084	0.0617	0.016
	external motivation $\Rightarrow$ Responsibility $\Rightarrow$ school disengagement	-0.0508	0.0316	-0.0106	0.649
Component	cognitive motivation $\Rightarrow$ responsibility	0.1910	0.5679	0.4379	<.001
	responsibility $\Rightarrow$ school disengagement	0.1926	0.4225	0.3248	<.001
	achievement motivation $\Rightarrow$ responsibility	-0.1925	0.1446	-0.0295	0.780
	introjected motivation $\Rightarrow$ responsibility	0.0547	0.3347	0.1899	0.006
	external motivation $\Rightarrow$ responsibility	-0.1645	0.1023	-0.0326	0.648
Direct	cognitive motivation $\Rightarrow$ school disengagement	-0.1429	0.2160	0.0446	0.689
	achievement motivation $\Rightarrow$ school disengagement	-0.3317	-0.0204	-0.2293	0.027
	introjected motivation $\Rightarrow$ school disengagement	-0.2396	0.0228	-0.1116	0.105
	external motivation $\Rightarrow$ school disengagement	0.2844	0.5309	0.4524	<.001
Total	cognitive motivation $\Rightarrow$ school disengagement	-0.0306	0.3371	0.1869	0.102
	achievement motivation $\Rightarrow$ school disengagement	-0.3478	-0.0190	-0.2389	0.029
	introjected motivation $\Rightarrow$ school disengagement	-0.1850	0.0880	-0.0499	0.486
	external motivation $\Rightarrow$ school disengagement	0.2679	0.5282	0.4418	<.001

**Figure 1**  
*Structure of Mediating Relationships between Academic Motivation and School Disengagement with Responsibility as a Mediator*



Overall, the results support the theoretical model, which posits that engagement in the learning process is sustained not only by intrinsic motivation but also by the development of responsibility as a component of self-regulation. A reduction in responsibility, however, increases the risk of disengagement even when externally expressed academic motivation is maintained.

These findings are consistent with contemporary perspectives on school disengagement as a multifactorial phenomenon emerging at the intersection of students' motivational and self-regulatory characteristics. According to Deci and Ryan's self-determination theory, intrinsic forms of academic motivation – cognitive and achievement-oriented – are associated with more stable engagement, whereas the predominance of external regulation is linked to increased risks of emotional burnout and school alienation (Reeve, 2025). Our findings were generally consistent with previous research. Cognitive motivation, and to a lesser degree introjected motivation, was indirectly related to lower school disengagement through higher responsibility, whereas external motivation showed a direct positive association with disengagement.

The mediating role of responsibility in the link between cognitive motivation and disengagement suggests that interest in learning may be more effective when it is accompanied by personal responsibility, such as completing tasks, meeting obligations, and understanding the consequences of one's actions. This interpretation corresponds with the results reported by Morosanova and Fomina, who highlighted the role of self-regulation and responsibility in sustaining academic involvement during

adolescence (Fomina & Morosanova, 2020). Partial mediation in the relationship between introjected motivation and disengagement may indicate that some adolescents combine external expectations with internally accepted responsibility. Similar results were described by Gordeeva and Sychev, who found that intrinsic and introjected motivation, together with self-regulation, were associated with higher academic engagement (Gordeeva et al., 2012). Achievement motivation also appeared to be a protective factor, as its direct negative association with disengagement remained significant after controlling for the mediator. This suggests that striving for success may support academic engagement independently of responsibility, which is consistent with earlier studies on mastery goals and engagement (Salmela-Aro, 2021; Wang & Grolnick, 2024).

Conversely, external motivation functions as a risk factor: its direct positive effect on disengagement reflects an orientation toward external rewards and punishments, which is associated with increased alienation and emotional exhaustion (Tao et al., 2022). The absence of a mediating effect of responsibility in this relationship supports the findings of Danilova et al., who reported a weak association between external motivation and components of personal self-regulation (Danilova et al., 2024).

In summary, our study extends existing knowledge on predictors of school disengagement by demonstrating that responsibility operates not merely as a personal resource but as a mechanism for internalising academic motivation, facilitating the shift from external to internal behavioural regulation. These results align with Salmela-Aro's (2021) conceptualisation of school engagement and disengage-

ment as dynamic states influenced by the interplay of personal and contextual factors (Salmela-Aro, 2021).

The practical implications of these findings suggest that interventions aimed at preventing school disengagement should target not only the enhancement of academic motivation but also the development of responsibility as a component of self-regulation – promoting skills such as planning, goal-setting, and adopting academic requirements as personally meaningful (Morosanova et al., 2025). The combination of intrinsic motivation and responsibility appears to be a critical condition for sustaining academic engagement during adolescence.

### Conclusion

The present study has advanced the understanding of the psychological mechanisms underlying adolescent school disengagement, which can be considered not only a pedagogical issue but also a personal and motivational problem. The results of the empirical analysis confirmed that disengagement is not merely a lack of activity but reflects an internal conflict between external demands and the student's personal system of meanings. Disengagement arises when academic activities lose subjective significance and cease to be perceived as personally meaningful.

Within the structure of the identified determinants of school disengagement, the nature of academic motivation plays a central role. Internally oriented forms of motivation—cognitive and, to a lesser extent, introjected—contribute to the stability of engagement, whereas external motivation, driven by external pressure and control, exacerbates maladaptive outcomes. Achievement motivation occupies an intermediate position, sustaining engagement even in the presence of lower levels of internal self-regulation.

A key finding of the study was the confirmation of responsibility's mediating role as a psychological mechanism linking types of academic motivation to

school disengagement. Responsibility, understood as the capacity for self-regulation, commitment, and awareness of the consequences of one's actions, functions as a “bridge” between motivational drives and actual student behaviour. At high levels of responsibility, intrinsic motivation translates into sustained academic engagement, whereas insufficient responsibility prevents even strong motivational impulses from converting into effective participation in the learning process. Responsibility may be one factor involved in the internalisation of academic motivation. In the present sample, students with higher responsibility tended to rely more on personal commitment than on external pressure when regulating their learning behaviour.

From a practical perspective, the results underscore the necessity of comprehensive psycho-pedagogical programs that target not only the development of cognitive motivation but also the cultivation of responsibility as a central component of personal self-regulation. Supporting student autonomy and fostering goal-setting, planning, and self-monitoring skills may be considered effective strategies for preventing school disengagement.

Future research directions include expanding the empirical base and examining the influence of social context—particularly teacher support, school climate, and parental expectations—on the interaction between motivation and responsibility. It is also advisable to analyse gender and age differences in the manifestation of school disengagement and to validate the proposed models in longitudinal studies.

### Author Contributions

*Kenenbayeva Zubaida* – *Conceptualization, Methodology, Investigation, Writing – original draft.*

*Turkmenbayev Arystanbek* – *Conceptualization, Methodology, Supervision, Writing – review & editing, Visualization.*

*Musayeva Nurgul* – *Conceptualization, Methodology, Supervision, Writing – review & editing.*

*Orozaliev Eric* – *Formal Analysis, Validation.*

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#### **Information about the authors:**

Kenenbayeva Zubaida Toleevna – PhD student at K. Karasaev Bishkek state university (Bishkek, Kyrgyzstan, e-mail: [kenenbayeva\\_z@mail.ru](mailto:kenenbayeva_z@mail.ru)).

Turkmenbayev Arystanbek Remezhanovich – PhD student at K. Karasaev Bishkek state university (Bishkek, Kyrgyzstan, e-mail: [1429523@list.ru](mailto:1429523@list.ru)).

Musayeva Nurgul Kuseinova – candidate of philosophical sciences, associate professor at K. Karasaev Bishkek state university (Bishkek, Kyrgyzstan e-mail: [musaeva\\_nurqul@mail.ru](mailto:musaeva_nurqul@mail.ru)).

Orozaliev Eric Sadykovich – candidate of philosophical sciences, professor at K. Karasaev Bishkek state university (Bishkek, Kyrgyzstan e-mail: [eorozaliev@bhu.kg](mailto:eorozaliev@bhu.kg)).

#### **Авторлар туралы мәлімет:**

Кененбаева Зубайда Толеевна – Қ. Карасаев атындағы Қырғыз мемлекеттік университетінің PhD докторанты (Бішкек, Қырғызстан, e-mail: [kenenbayeva\\_z@mail.ru](mailto:kenenbayeva_z@mail.ru)).

Түркменбаев Арыстанбек Ремезханович – Қ. Карасаев атындағы Қырғыз мемлекеттік университетінің PhD докторанты (Бішкек, Қырғызстан, e-mail: [1429523@list.ru](mailto:1429523@list.ru)).

*Мусаева Нургуль Кусейновна – философия ғылымдарының кандидаты, Қ. Карасаев атындағы Қырғыз мемлекеттік университетінің доценті (Бишкек, Қырғызстан, e-mail: musaeva\_nurqul@mail.ru).*

*Орозалиев Эрик Садыкович – философия ғылымдарының кандидаты, Қ. Карасаев атындағы Қырғыз мемлекеттік университетінің профессоры (Бишкек, Қырғызстан, e-mail: eorozaliev@bhu.kg).*

**Сведения об авторах:**

*Кененбаева Зубайда Толеевна – докторант Кыргызского государственного университета имени К. Карасаева (Бишкек, Кыргызстан, e-mail: kenenbaeva\_z@mail.ru).*

*Туркменбаев Арыстанбек Ремезанович – докторант Кыргызского государственного университета имени К. Карасаева (Бишкек, Кыргызстан, e-mail: 1429523@list.ru).*

*Мусаева Нургуль Кусейнова – кандидат философских наук, доцент Кыргызского государственного университета имени К. Карасаева (Бишкек, Кыргызстан, e-mail: musaeva\_nurqul@mail.ru).*

*Орозалиев Эрик Садыкович – кандидат философских наук, профессор Кыргызского государственного университета имени К. Карасаева (Бишкек, Кыргызстан, e-mail: eorozaliev@bhu.kg).*

*Келіп түсті: 02 қаңтар 2026 жыл*

*Қабылданды: 28 сәуір 2026 жыл*