

# Interrelationship Between Academic Procrastination and Metacognitive Processes: In the Example of Students from Uzbekistan And Russia

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**Abstract:** This article discusses the theoretical and practical aspects of the relationship between academic procrastination and metacognitive processes. The purpose of the study is to identify the relationship between the level of development of metacognitive processes in students and the level of academic procrastination, as well as to analyze ethnocultural characteristics. The article presents scientific approaches to the essence of the phenomenon of academic procrastination, its psychological determinants, as well as the role of metacognitive processes in academic activity. The empirical part of the study was conducted with the participation of students from Russia and Uzbekistan, in which the relationship between procrastination and metacognitive indicators is analyzed based on psychodiagnostic methods. The results showed that students with a low level of metacognitive regulation tend to have a high level of procrastination.

**Keywords:** Academic procrastination, metacognitive processes, metacognitive regulation, ethnocultural characteristics, student psychology, academic activity, cognitive factors, self-management.

**Introduction:** Academic procrastination has been one of the problems that has received special attention in psychological research in recent years, and it is considered an important determinant of the organization of educational activities. Although the phenomenon of procrastination was initially studied within the framework of general psychology, today it is interpreted inextricably linked to educational psychology and metacognitive theory. Researchers Ferrari [1:363] and Steel [2:895] describe procrastination as irrational, consciously implemented delay. In this case, the student chooses short-term emotional relief by postponing the completion of tasks, but this approach leads to long-term negative consequences. Flavell argued that academic procrastination is directly related not only to the individual's time management skills, but also to the level of development of metacognitive processes. [3:908] According to metacognitive theory, a person's ability to plan, monitor and control their own thought processes is an integral component of educational success. The underdevelopment of metacognitive

processes is usually characterized by uncertainty in planning, incorrect assessment of the stages of task performance, and errors in cognitive monitoring, which increases the risk of procrastination.

Although foreign studies by I. Katz, K. Eilott, N. Nevo. have noted the connection of procrastination with emotional and motivational factors, many sources have not sufficiently covered cognitive and metacognitive mechanisms. [4:115] Also, studies aimed at studying the influence of ethnocultural factors are rare. In this regard, cross-cultural studies conducted among students from Russia and Uzbekistan are scientifically relevant, since the socio-cultural context plays an important role in the formation of a person's self-management strategies. Also, theoretical analyses show that one of the most effective ways to reduce procrastination is to develop metacognitive skills. [5:76] Metacognitive training enhances students' ability to manage their independent learning activities by strengthening planning, monitoring, and evaluation mechanisms. [6:430] This theoretically justifies the superiority of the metacognitive approach in

preventing procrastination.

## METHODS

The research design was based on a cross-cultural comparative approach. 120 students studying at two higher educational institutions in the Russian Federation and the Republic of Uzbekistan participated in the empirical study (60 from Russia, 60 from Uzbekistan). Respondents were students aged 19 to 24, studying in the second stage of psychology. Methods used in the study:

- psychodiagnostic tests: an adaptation of the Lay Academic Procrastination Scale was used to assess academic procrastination. In order to identify metacognitive processes, the Metacognitive Awareness Inventory (MAI) developed by Schraw & Dennison, adapted for the Uzbek and Russian languages, was used; [7:123]
- questionnaire and questionnaire: additional questions were included to determine the demographic data of the respondents, as well as to assess additional factors related to learning motivation.
- statistical analysis: data were processed using the SPSS program and evaluated using Pearson correlation analysis, Student t-test and multivariate regression analysis. The significance level was set at  $p < 0.05$ .

Ethical aspects of the study: all participants gave oral and written consent before the study, confidentiality was guaranteed. During the study, international ethical norms, as well as requirements for ensuring the psychological well-being of the participants, were met.

## RESULTS

The results of the study confirmed the existence of a significant relationship between the level of academic procrastination and indicators of the development of metacognitive processes. According to empirical data, the academic procrastination index for the general sample was 56.3 points on average, which is an indicator above the average level. The average score for metacognitive skills was 71.4, of which the monitoring and control components were at a high level, and the planning component was at a relatively low level.

According to the results of the correlation analysis, a negative correlation was found between the level of procrastination and the overall index of metacognitive processes ( $r = -0.48$ ;  $p < 0.01$ ). That is, students with a high level of metacognitive processes had a lower procrastination index. In particular, the correlation between metacognitive regulation (planning, monitoring and evaluation) and procrastination was even stronger ( $r = -0.52$ ;  $p < 0.01$ ). Metacognitive

knowledge (perceptions of one's own cognitive processes) component, a moderate correlation was noted ( $r = -0.34$ ;  $p < 0.05$ ).

The analysis of ethnocultural differences showed that Russian students had higher results on average in metacognitive skills ( $M = 74.2$ ), while Uzbek students showed relatively lower results ( $M = 68.6$ ). At the same time, procrastination indicators were slightly higher among Uzbek students ( $M = 59.1$ ), while Russian students showed a lower indicator ( $M = 53.5$ ).

The results of the regression analysis showed that metacognitive regulation was the strongest predictor of procrastination ( $\beta = -0.41$ ;  $p < 0.01$ ), followed by monitoring ( $\beta = -0.29$ ;  $p < 0.05$ ) and planning ( $\beta = -0.24$ ;  $p < 0.05$ ). The effect of the metacognitive knowledge component was weaker ( $\beta = -0.18$ ;  $p > 0.05$ ). This confirms that the development of metacognitive regulation is a priority in strategies to reduce procrastination. Additional analyses also showed the importance of motivational indicators: students with a low level of intrinsic motivation had a higher procrastination indicator ( $r = -0.31$ ;  $p < 0.05$ ). These results confirm that in reducing procrastination, it is necessary to take into account not only cognitive factors, but also motivational mechanisms.

## DISCUSSION

The results confirmed the existence of a significant negative correlation between academic procrastination and metacognitive processes. The strength of this correlation indicates that metacognitive processes are central to the mechanisms of planning and controlling academic activity, and their underdevelopment increases the risk of procrastination. The results of the study are consistent with many previous studies and confirm the crucial role of metacognitive regulation in the effectiveness of academic activity and time management. The components of metacognitive regulation, planning, monitoring and evaluation, are the strongest predictors in predicting procrastination. Effective planning and monitoring allow for an assessment of the complexity of academic tasks, the correct allocation of time and the use of a strategic approach, which reduces the tendency to procrastinate. On the contrary, the lack of these skills leads to the student losing control over his academic activity, as a result of which procrastination increases. The analysis of ethnocultural aspects is also noteworthy. While Russian students scored relatively high on metacognitive skills, Uzbek students scored lower. These differences can be explained by the socio-cultural context, the specifics of the education system, and traditional approaches to organizing learning activities. For example, in Russian higher education

institutions, students are required to do more independent work, which helps develop their metacognitive skills. In Uzbek higher education, teacher control is relatively high, which may reduce students' need for self-regulation.

Additional analyses showed a negative relationship between the level of intrinsic motivation and procrastination. This once again confirms the interaction between motivational mechanisms and cognitive control. Thus, interventions to reduce procrastination should focus not only on developing metacognitive skills, but also on increasing students' motivation to learn. In general, the results of the study show that procrastination is a multifactorial phenomenon, and an integrated approach is necessary for its effective management. Trainings that include the development of metacognitive skills, as well as motivational support programs, can play an important role in reducing this problem. At the same time, adapting intervention strategies, taking into account ethnocultural differences, remains one of the urgent tasks.

## CONCLUSION

The results of this study showed that academic procrastination is widespread among students and has a direct impact on the effectiveness of academic activities. Metacognitive processes, in particular, components such as planning, monitoring and self-control, are important factors in reducing procrastination. Empirical data showed a negative, statistically significant relationship between metacognitive regulation and procrastination: the more developed the student's metacognitive skills, the lower the level of procrastination. The study also revealed ethnocultural differences. While Russian students achieved higher results in metacognitive skills, this indicator was relatively lower among Uzbek students. This is due to the differences in the education system, cultural values, and the organization of independent work. is explained by assumptions. Based on the results obtained, it can be noted that interventions aimed at reducing procrastination should, first of all, be directed at developing metacognitive skills. In this direction, the formation of educational planning strategies, strengthening monitoring, and developing self-assessment are effective. Also, increasing intrinsic motivation in students will be an important factor in preventing procrastination. Future research should focus on a deeper study of ethnocultural differences, empirically testing the effectiveness of metacognitive training, and developing comprehensive psychological programs.

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