

# Structural Modeling of the Relationships Between Academic Perfectionism and the Psychosocial Structure of the Classroom on Feelings of Academic Incompetence with the Mediating Role of Academic Self-Handicapping in Secondary School Students

Mohammad. Enayat Sani<sup>1</sup>, Shaban. Haydari<sup>2\*</sup>, Mohammad Kazem. Fakhri<sup>1</sup>

<sup>1</sup> Department of Psychology, Sari.C., Islamic Azad University, Mazandaran, Iran

<sup>2</sup> Assistant Professor, Department of Psychology, Sari Branch, Islamic Azad University, Sari, Iran

\* Corresponding author email address: 4989473205@iau.ac.ir

## Article Info

### Article type:

Original Research

### Section:

Educational Counseling

### How to cite this article:

Enayat Sani, M., Haydari, S., & Fakhri, M. K. (2026). Structural Modeling of the Relationships Between Academic Perfectionism and the Psychosocial Structure of the Classroom on Feelings of Academic Incompetence with the Mediating Role of Academic Self-Handicapping in Secondary School Students. *KMAN Counseling and Psychology Nexus*, 4, 1-12.

<http://doi.org/10.61838/kman.ec.psynexus.5515>



© 2026 the authors. Published by KMAN Publication Inc. (KMANPUB), Ontario, Canada. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

## ABSTRACT

The present study aimed to investigate the structural relationships between academic perfectionism and psychosocial classroom structure with feelings of academic incompetence through the mediating role of academic self-handicapping among upper secondary school students. This study employed a correlational design using structural equation modeling (SEM). The statistical population consisted of all male and female upper secondary school students in Gorgan during the 2025–2026 academic year. Based on structural modeling criteria and the number of observed variables, a sample of 405 students was selected through multistage cluster sampling. Data were collected using the Academic Perfectionism Questionnaire, Psychosocial Classroom Structure Questionnaire, Academic Self-Handicapping Questionnaire, and the researcher-made Feelings of Academic Incompetence Questionnaire. Data analysis was performed using descriptive statistics, Shapiro–Wilk test, Durbin–Watson test, confirmatory factor analysis, structural equation modeling, and bootstrap analysis in SPSS and AMOS software. The findings indicated that academic perfectionism had a significant direct effect on feelings of academic incompetence ( $\beta = -0.230, p < 0.01$ ). Psychosocial classroom structure also significantly predicted feelings of academic incompetence ( $\beta = -0.295, p < 0.001$ ). However, the direct effect of academic self-handicapping on feelings of academic incompetence was not significant ( $\beta = 0.015, p > 0.05$ ). In addition, the indirect effects of academic perfectionism and psychosocial classroom structure on feelings of academic incompetence through academic self-handicapping were not statistically significant. The results further demonstrated that although several direct structural paths were significant, the overall fit indices of the structural model did not reach acceptable thresholds. The findings suggest that both academic perfectionism and psychosocial classroom structure play important roles in shaping students' feelings of academic incompetence.

**Keywords:** Academic Perfectionism, Psychosocial Classroom Structure, Academic Self-Handicapping, Feelings of Academic Incompetence

## 1. Introduction

Academic life during adolescence is accompanied by extensive cognitive, emotional, and social challenges that significantly influence students' perceptions of competence, achievement, and personal value. Among upper secondary school students, academic success is not merely an educational outcome but also a central component of identity formation and psychological adjustment. In many educational contexts, increasing academic expectations, competitive environments, parental pressure, and social comparison have intensified students' vulnerability to maladaptive psychological experiences, particularly feelings of academic incompetence. Feelings of academic incompetence refer to students' persistent perceptions of inadequacy, inability, and inefficiency in meeting academic demands and achieving expected educational standards. These feelings are often associated with low self-efficacy, fear of failure, diminished motivation, and maladaptive coping behaviors that interfere with academic engagement and psychological well-being (Ahmadi & Amoopour 2023; Jahan Nezhadi et al., 2022). Students who experience chronic feelings of academic incompetence frequently demonstrate lower persistence, reduced academic resilience, and heightened emotional distress in educational settings.

One of the major psychological constructs associated with academic maladjustment is academic perfectionism. Academic perfectionism refers to the tendency to establish excessively high standards for academic performance accompanied by overly critical self-evaluation and fear of making mistakes. Although adaptive forms of perfectionism may motivate achievement-oriented behaviors, maladaptive perfectionism is often linked to anxiety, self-doubt, emotional exhaustion, and fear of failure (Noor, 2023; Rajaeinia, 2022). Perfectionistic students typically evaluate their academic worth through unrealistic standards and may perceive even minor mistakes as indicators of personal inadequacy. Such cognitive patterns increase vulnerability to negative emotional outcomes and reinforce feelings of incompetence in academic situations. Noor highlighted that educational pressure and perfectionistic expectations imposed by parents and teachers can create chronic psychological tension among adolescents, especially among academically talented students (Noor, 2023). Similarly, Chang and colleagues demonstrated that evaluation concern perfectionism significantly contributes to academic burnout, depression, fear of failure, and self-handicapping behaviors among students (Chang et al., 2025). These findings suggest

that perfectionism may play a central role in shaping students' maladaptive academic perceptions and emotional responses.

In addition to individual cognitive characteristics, environmental and interpersonal educational factors also contribute substantially to students' psychological adjustment. One of the most influential contextual variables in educational psychology is the psychosocial structure of the classroom. The psychosocial classroom environment includes students' perceptions of teacher support, peer support, classroom autonomy, and clarity of classroom rules. Positive classroom climates provide emotional security, encourage participation, strengthen self-confidence, and reduce academic stress. Conversely, unfavorable psychosocial classroom environments may increase students' feelings of isolation, inadequacy, and helplessness. Research has consistently shown that supportive educational environments improve academic engagement, self-regulation, and emotional adjustment among students (Fateme Saati et al., 2021; Saati Masoumi et al., 2021). Jia and colleagues also found that stressful academic environments intensify academic anxiety and maladaptive coping responses among students, particularly during periods of educational uncertainty such as the COVID-19 pandemic (Jia et al., 2020; Jia et al., 2021). Therefore, the psychosocial structure of the classroom may serve either as a protective factor or as a risk factor in relation to students' perceptions of academic competence.

Another important construct related to students' academic functioning is academic self-handicapping. Academic self-handicapping refers to cognitive and behavioral strategies through which students intentionally create obstacles or excuses to protect self-esteem in situations involving potential academic failure. Such behaviors may include procrastination, reduced effort, avoidance of preparation, or external attribution of failure. Although self-handicapping may temporarily protect self-worth, it ultimately undermines academic performance, self-confidence, and psychological adjustment (Endiape, 2023; Schwinger et al., 2022). Schwinger and colleagues, in a meta-analysis examining antecedents of academic self-handicapping, reported that fear of failure, low academic self-concept, anxiety, and maladaptive perfectionism significantly predict self-handicapping tendencies among students (Schwinger et al., 2022). Similarly, Azeem and Zubair found that academic self-handicapping negatively affects mastery goal orientation and interferes with self-regulated learning strategies among adolescents (Azeem &

Zubair, 2021). These findings indicate that self-handicapping may function as an important maladaptive mechanism linking cognitive vulnerabilities to negative academic outcomes.

The relationship between perfectionism and self-handicapping has attracted increasing attention in recent educational research. Students with maladaptive perfectionistic tendencies may engage in self-handicapping behaviors to preserve self-esteem when facing potential failure. In this process, students create excuses for poor performance in order to protect their sense of worth from the consequences of unrealistic standards. Alipour and colleagues demonstrated that academic perfectionism significantly predicts academic procrastination and self-handicapping, particularly when students experience diminished feelings of competence (Alipour et al., 2024). Similarly, Zandieh and Jafariharandi reported that self-handicapping is positively associated with academic procrastination and maladaptive personality traits (Zandieh & Jafariharandi, 2020). These findings support the notion that perfectionistic students may adopt self-defeating coping strategies to manage psychological distress associated with academic evaluation.

Academic procrastination is another major factor closely associated with self-handicapping and academic incompetence. Academic procrastination refers to the unnecessary delay of academic tasks despite awareness of negative consequences. Procrastination often reflects deficits in self-regulation, emotional management, and motivational processes. Students who procrastinate frequently experience guilt, anxiety, fear of failure, and diminished academic confidence. Previous studies have identified strong associations between procrastination, self-handicapping, and psychological maladjustment (Emami Khotbesara et al., 2024; Zandieh & Jafariharandi, 2020). Emami Khotbesara and colleagues found that interventions designed to strengthen academic buoyancy and psychological capital significantly reduced academic procrastination among female students (Emami Khotbesara et al., 2024). Moreover, Afshari demonstrated that negative self-evaluation and cognitive avoidance contribute to academic self-handicapping through the mediating role of academic procrastination (Afshari, 2023). These findings suggest that procrastination may represent an important mechanism through which maladaptive cognitions influence students' perceptions of competence and achievement.

Feelings of incompetence are also influenced by students' broader self-perceptions and emotional experiences. Low

self-esteem, negative self-evaluation, fear of failure, and social comparison processes can intensify perceptions of academic inadequacy. Mansournia and Karimi reported that academic burnout mediates the relationship between academic achievement and self-handicapping among university students (Mansournia & Karimi, 2020). Similarly, Sadeghi Goghari found that academic self-handicapping mediates the relationship between academic self-efficacy and academic self-concept among students (Sadeghi Goghari, 2020). Losova further emphasized the importance of academic self-concept by showing that self-compassion indirectly reduces self-handicapping through improvements in academic self-perceptions (Losova, 2025). These findings indicate that students' cognitive evaluations of themselves play a central role in shaping maladaptive academic emotions and behaviors.

Research has additionally highlighted the influence of emotional and interpersonal variables on academic self-handicapping and incompetence. Aghazadeh reported that emotional alexithymia predicts academic self-handicapping among students with problematic parental relationships (Aghazadeh, 2022). Similarly, Shirani Bidabadi demonstrated that emotional difficulties and low compassion are associated with higher self-handicapping tendencies among students with chronically ill parents (Shirani Bidabadi, 2020). Khanmohammadi and colleagues also found that attachment to parents, peers, and teachers predicts academic self-handicapping through the mediating role of academic self-regulation (Khanmohammadi et al., 2024). These findings emphasize the importance of emotional security and supportive interpersonal relationships in reducing maladaptive academic behaviors and perceptions.

Educational researchers have increasingly emphasized the role of self-regulation and academic engagement in reducing self-handicapping behaviors and improving students' academic adjustment. Saati Masoumi and colleagues proposed a causal model in which academic engagement is influenced by self-regulation and academic emotions through the mediating role of academic self-handicapping (Saati Masoumi et al., 2021). Likewise, Jafari and colleagues reported that academic optimism mediates the relationship between self-regulation, academic self-efficacy, and academic passion among students displaying self-handicapping behaviors (Jafari et al., 2024). Habibikaleybar also showed that teaching metacognitive strategies significantly decreases academic self-handicapping and enhances reflective thinking among high

school students (Habibikaleybar, 2021). Together, these studies indicate that self-regulatory competencies may weaken maladaptive academic cognitions and improve students' perceptions of competence.

Despite the growing body of research examining self-handicapping, perfectionism, procrastination, and academic adjustment, several gaps remain in the literature. First, many previous studies have focused primarily on direct relationships between variables without simultaneously examining the complex structural pathways linking individual cognitive factors, contextual classroom variables, and maladaptive academic outcomes. Second, fewer studies have investigated feelings of academic incompetence as a distinct psychological construct among upper secondary school students. Third, although the mediating role of self-handicapping and procrastination has been explored separately in some studies, limited research has examined their simultaneous mediating roles within a comprehensive structural model. Finally, much of the existing research has been conducted among university students, whereas adolescence represents a particularly sensitive developmental period characterized by heightened academic pressure, identity concerns, and emotional vulnerability.

Considering the theoretical and empirical importance of these variables, investigating the structural relationships among academic perfectionism, psychosocial classroom structure, academic self-handicapping, and feelings of academic incompetence may provide valuable insights into the psychological mechanisms underlying students' maladaptive academic experiences. Understanding these relationships can contribute to the development of educational and psychological interventions aimed at reducing students' feelings of incompetence and improving their academic adjustment and emotional well-being (Ghadampour et al., 2020; Huangfu, 2024). Therefore, the present study aimed to investigate the structural relationships between academic perfectionism and psychosocial classroom structure with feelings of academic incompetence through the mediating role of academic self-handicapping among upper secondary school students.

## 2. Methods and Materials

### 2.1. Study Design and Participants

The present study was a non-experimental investigation employing a correlational research design. Considering the nature of the research hypotheses and the aim of examining the direct and indirect relationships among the study

variables, the study was conducted using structural equation modeling (SEM). This approach was selected because it enables the simultaneous examination of complex relationships among observed and latent variables and allows the proposed conceptual model to be tested and explained within a comprehensive analytical framework. Data analysis was performed using descriptive and inferential statistical methods based on structural equation modeling.

The statistical population of the study consisted of all male and female students enrolled in upper secondary schools in Gorgan during the 2025–2026 academic year. The population included students studying in the tenth, eleventh, and twelfth grades in theoretical disciplines, including Experimental Sciences, Mathematics and Physics, Literature and Humanities, and Islamic Sciences and Humanities. According to official educational statistics, the total number of upper secondary students in urban schools of Gorgan was 5,641 students.

The sample size in structural equation modeling studies is generally determined based on the number of observed variables, with recommendations ranging from 5 to 20 participants per observed variable. In the present study, the final research model included 21 observed variables, consisting of five components of academic perfectionism, four components of psychosocial classroom structure, three components of feelings of academic incompetence, and seven items related to academic self-handicapping. Based on these criteria, a sample size of 405 students was considered appropriate for achieving adequate statistical power and stable parameter estimation. Participants were selected using a multistage cluster sampling method. After obtaining the necessary permissions from educational authorities, several schools were selected from different districts of Gorgan, and students who met the inclusion criteria voluntarily participated in the study.

Data collection was conducted both electronically and in paper-and-pencil formats to increase accessibility and reduce limitations associated with data gathering. The electronic version of the questionnaires was distributed through educational communication platforms and school social networks, while printed questionnaires were administered in person at schools by the researcher. Before participation, students received explanations regarding the objectives of the study, confidentiality of information, voluntary participation, and ethical considerations. Informed consent was obtained from all participants, and they were asked to complete the questionnaires carefully and honestly.

After collection, the questionnaires were reviewed and scored for statistical analysis.

## 2.2. Measures

The Academic Perfectionism Questionnaire was used to assess students' levels of academic perfectionism. This self-report instrument was developed by Bahrami and Rasouli Khorshidi and consists of 22 items scored on a five-point Likert scale ranging from completely disagree to completely agree. The questionnaire measures students' tendencies toward setting excessively high academic standards, striving for flawlessness, and experiencing concern over academic performance and mistakes. Higher scores indicate higher levels of academic perfectionism. Previous studies have reported satisfactory psychometric properties for this instrument. Internal consistency coefficients obtained through Cronbach's alpha and split-half methods demonstrated acceptable reliability. Content validity was confirmed by psychology experts, and convergent validity findings supported the appropriateness of the scale for measuring academic perfectionism among Iranian students. In previous studies, Cronbach's alpha coefficients ranging from 0.87 to 0.91 were reported, indicating high reliability of the questionnaire in student populations.

The Psychosocial Classroom Structure Questionnaire was used to measure students' perceptions of the psychosocial climate of the classroom. This instrument was originally developed by Trickett and Moos and contains 32 items rated on a five-point Likert scale ranging from strongly disagree to strongly agree. The questionnaire evaluates four dimensions, including teacher support, peer support, student autonomy, and clarity and consistency of classroom rules. Higher scores represent a more positive perception of the psychosocial classroom environment. The questionnaire has demonstrated acceptable psychometric characteristics in previous studies. Content, face, and criterion validity have been supported in Iranian research, and confirmatory factor analysis has verified the four-factor structure of the scale. Cronbach's alpha coefficients reported for the total scale and its subscales have ranged from 0.71 to 0.88, indicating desirable internal consistency and reliability.

Academic Self-Handicapping was assessed using the Academic Self-Handicapping Questionnaire developed by Schwinger and colleagues in 2010. This self-report scale consists of 7 items scored on a five-point Likert scale from strongly disagree to strongly agree. The instrument measures the extent to which students engage in self-defeating

cognitive and behavioral strategies that may hinder academic performance while protecting self-esteem in situations involving potential failure. One item of the questionnaire is reverse scored, and higher total scores indicate greater levels of academic self-handicapping. Previous investigations have confirmed the construct validity of the scale using confirmatory factor analysis, with all factor loadings reported above acceptable thresholds. Reliability studies using Cronbach's alpha have reported coefficients around 0.82, reflecting satisfactory internal consistency among Iranian student samples.

The Feelings of Academic Incompetence Questionnaire was employed to evaluate students' perceptions of inadequacy and incompetence in academic settings. This researcher-developed self-report instrument contains 17 items and includes three subscales: low academic self-efficacy, fear of failure, and social comparison. Responses are scored using a five-point Likert scale, and higher scores indicate stronger feelings of academic incompetence. To establish content and face validity, the questionnaire was reviewed by educational psychologists and academic counselors who evaluated the clarity, comprehensiveness, and relevance of the items to the construct of academic incompetence. A pilot study was conducted on a sample of 30 students similar to the target population, and the reliability coefficient calculated using Cronbach's alpha was 0.72, indicating acceptable internal consistency for research purposes.

## 2.3. Data Analysis

Data analysis was conducted using both descriptive and inferential statistical methods. In the descriptive section, indices such as mean, standard deviation, skewness, and kurtosis were calculated to examine the characteristics of the sample and evaluate the normality assumptions of the data distribution. In the inferential section, structural equation modeling was used to test the proposed conceptual model and examine the direct and indirect relationships among academic perfectionism, psychosocial classroom structure, academic self-handicapping, and feelings of academic incompetence.

To evaluate the mediating role of academic self-handicapping, the bootstrap method was employed to estimate indirect effects and assess their statistical significance. Model fit was examined using standard fit indices, and all analyses were performed at a significance

level of 0.05 using statistical software such as SPSS and AMOS.

### 3. Findings and Results

The demographic findings showed that among the 405 participating upper secondary students, 278 students were female {68.6%} and 127 were male {31.4%}. In terms of

grade level, 94 students {23.2%} were in the tenth grade, 124 {30.6%} were in the eleventh grade, and 187 {46.2%} were in the twelfth grade. Regarding academic field, 154 students {38.0%} studied Experimental Sciences, 139 {34.3%} Mathematics and Physics, 67 {16.5%} Literature and Humanities, and 54 {11.1%} Islamic Sciences and Humanities.

**Table 1**

*Descriptive Statistics of the Main Research Variables*

| Variable                          | Component                      | Min | Max | Mean  | SD     |
|-----------------------------------|--------------------------------|-----|-----|-------|--------|
| Academic perfectionism            | Academic performance           | 4   | 19  | 10.06 | 5.215  |
| Academic perfectionism            | Academic anxiety               | 4   | 20  | 9.86  | 5.281  |
| Academic perfectionism            | Academic success               | 6   | 29  | 15.64 | 7.726  |
| Academic perfectionism            | Academic failure               | 4   | 20  | 10.15 | 5.553  |
| Academic perfectionism            | Others' expectations           | 4   | 19  | 10.77 | 4.921  |
| Psychosocial classroom structure  | Teacher support                | 9   | 39  | 24.93 | 10.393 |
| Psychosocial classroom structure  | Peer support                   | 10  | 38  | 24.01 | 9.429  |
| Psychosocial classroom structure  | Student autonomy               | 8   | 36  | 19.62 | 9.219  |
| Psychosocial classroom structure  | Clarity and stability of rules | 9   | 40  | 25.27 | 10.337 |
| Academic self-handicapping        | Total score                    | 15  | 27  | 20.22 | 2.692  |
| Feelings of academic incompetence | Low self-efficacy              | 6   | 26  | 17.32 | 6.042  |
| Feelings of academic incompetence | Fear of failure                | 8   | 27  | 17.48 | 4.661  |
| Feelings of academic incompetence | Social comparison              | 7   | 23  | 14.18 | 3.367  |

The normality assumption was examined using the Shapiro–Wilk test. The significance values for all variables and components were greater than 0.05; therefore, the distribution of the variables was normal or close to normal.

The independence of observations was also confirmed using the Durbin–Watson statistic, which was 2.182 and fell within the acceptable range of 1 to 3.

**Table 2**

*Psychometric Findings for the Feelings of Academic Incompetence Questionnaire*

| Scale / Item                | Mean  | SD    | Cronbach's Alpha / Factor Loading |
|-----------------------------|-------|-------|-----------------------------------|
| Item 1                      | 2.85  | 1.311 | 0.514                             |
| Item 2                      | 2.61  | 1.053 | 0.624                             |
| Item 3                      | 3.15  | 1.391 | 0.628                             |
| Item 4                      | 2.96  | 1.327 | 0.687                             |
| Item 5                      | 2.61  | 1.196 | 0.825                             |
| Item 6                      | 3.13  | 1.353 | 0.874                             |
| Item 7                      | 3.30  | 1.006 | 0.751                             |
| Item 8                      | 2.29  | 0.898 | 0.750                             |
| Item 9                      | 3.06  | 1.100 | 0.768                             |
| Item 10                     | 2.68  | 1.207 | 0.713                             |
| Item 11                     | 3.09  | 1.444 | 0.563                             |
| Item 12                     | 3.05  | 1.373 | 0.524                             |
| Item 13                     | 2.51  | 1.061 | 0.703                             |
| Item 14                     | 3.07  | 1.094 | 0.794                             |
| Item 15                     | 3.08  | 1.151 | 0.515                             |
| Item 16                     | 2.82  | 1.283 | 0.486                             |
| Item 17                     | 2.68  | 1.119 | 0.482                             |
| Low self-efficacy           | 17.32 | 6.042 | $\alpha = 0.878$                  |
| Fear of failure             | 17.48 | 4.661 | $\alpha = 0.733$                  |
| Social comparison           | 14.18 | 3.367 | $\alpha = 0.528$                  |
| Total academic incompetence | 48.97 | 13.19 | $\alpha = 0.911$                  |

The descriptive findings for the researcher-made Feelings of Academic Incompetence Questionnaire showed that item means ranged from 2.29 to 3.30 and standard deviations ranged from 0.898 to 1.444. The reliability coefficient for the total scale was 0.911, indicating desirable internal

consistency. The correlations of the total scale with low self-efficacy, fear of failure, and social comparison were 0.960, 0.948, and 0.983, respectively, all significant at the 0.001 level. The factor loadings of the items ranged from 0.482 to 0.874, showing acceptable item-factor relationships.

**Table 3**

*Fit Indices for the Measurement and Structural Models*

| Model                              | Index   | Obtained Value | Acceptable Criterion | Interpretation |
|------------------------------------|---------|----------------|----------------------|----------------|
| CFA model of academic incompetence | GFI     | 0.731          | > 0.90               | Not acceptable |
| CFA model of academic incompetence | RMSEA   | 0.182          | < 0.08               | Not acceptable |
| CFA model of academic incompetence | RMR     | 0.125          | < 0.08               | Not acceptable |
| CFA model of academic incompetence | NFI     | 0.754          | > 0.90               | Not acceptable |
| CFA model of academic incompetence | IFI     | 0.727          | > 0.90               | Not acceptable |
| CFA model of academic incompetence | AGFI    | 0.589          | > 0.70               | Not acceptable |
| CFA model of academic incompetence | CMIN/DF | 14.43          | 1–5                  | Not acceptable |
| Structural model                   | GFI     | 0.666          | > 0.90               | Not acceptable |
| Structural model                   | RMSEA   | 0.156          | < 0.08               | Not acceptable |
| Structural model                   | RMR     | 0.259          | < 0.08               | Not acceptable |
| Structural model                   | NFI     | 0.799          | > 0.90               | Not acceptable |
| Structural model                   | IFI     | 0.814          | > 0.90               | Not acceptable |
| Structural model                   | AGFI    | 0.589          | > 0.70               | Not acceptable |
| Structural model                   | CMIN/DF | 10.872         | 1–5                  | Not acceptable |

The fit indices showed that neither the confirmatory factor model of the Feelings of Academic Incompetence Questionnaire nor the structural model reached acceptable model-fit thresholds. Although the global fit of the model was not satisfactory, the factor loadings, internal consistency coefficients, and correlations between the academic

incompetence scale and its components supported the relative adequacy of the scale for the present study. In the structural model, modification indices were reviewed, but because the suggested modifications were not theoretically justified, no extensive model modifications were applied.

**Table 4**

*Direct and Indirect Structural Effects*

| Path  | Standardized Coefficient | SE    | t      | p     | Result          |
|---|--------------------------|-------|--------|-------|-----------------|
| Academic perfectionism → Academic incompetence  | -0.230                   | 0.101 | -2.678 | 0.007 | Significant     |
| Psychosocial classroom structure → Academic incompetence                              | -0.295                   | 0.048 | -3.396 | 0.000 | Significant     |
| Academic self-handicapping → Academic incompetence                                    | 0.015                    | 0.590 | 0.315  | 0.753 | Not significant |
| Academic perfectionism → Academic self-handicapping                                   | 0.051                    | 0.010 | 0.482  | 0.629 | Not significant |
| Psychosocial classroom structure → Academic self-handicapping                         | 0.062                    | 0.005 | 0.593  | 0.553 | Not significant |
| Academic perfectionism → Academic self-handicapping → Academic incompetence           | 0.0008                   | 0.001 | 0.094  | 0.644 | Not significant |
| Psychosocial classroom structure → Academic self-handicapping → Academic incompetence | 0.0009                   | 0.001 | 0.089  | 0.675 | Not significant |

The results indicated that academic perfectionism had a significant direct effect on feelings of academic incompetence among upper secondary students. The

negative coefficient showed that changes in academic perfectionism were significantly associated with changes in academic incompetence. Psychosocial classroom structure

also had a significant direct effect on feelings of academic incompetence, indicating that a more favorable classroom psychosocial environment was associated with lower feelings of academic incompetence. However, academic self-handicapping did not have a significant direct effect on feelings of academic incompetence. In addition, the indirect effects of academic perfectionism and psychosocial classroom structure on feelings of academic incompetence through academic self-handicapping were not significant. Therefore, academic self-handicapping did not play a significant mediating role in the relationship between academic perfectionism and feelings of academic incompetence, nor in the relationship between psychosocial classroom structure and feelings of academic incompetence.

#### 4. Discussion

The present study aimed to investigate the structural relationships between academic perfectionism and psychosocial classroom structure with feelings of academic incompetence through the mediating role of academic self-handicapping among upper secondary school students. The findings demonstrated that academic perfectionism had a significant direct effect on feelings of academic incompetence. In addition, psychosocial classroom structure significantly predicted feelings of academic incompetence. However, academic self-handicapping did not significantly mediate the relationships between academic perfectionism and feelings of academic incompetence or between psychosocial classroom structure and feelings of academic incompetence. Overall, the findings highlight the importance of both cognitive-personality factors and educational-contextual variables in shaping students' perceptions of academic inadequacy.

One of the major findings of the study was that academic perfectionism significantly affected feelings of academic incompetence. This finding suggests that students who maintain excessively high academic standards and evaluate themselves rigidly are more likely to experience feelings of inadequacy, fear of failure, and low academic confidence. Perfectionistic students often associate personal worth with flawless performance and interpret academic mistakes as evidence of incompetence. Consequently, when these students fail to achieve unrealistic expectations, they experience heightened self-criticism and emotional distress, which ultimately intensify feelings of academic incompetence. This finding is consistent with previous studies showing that maladaptive perfectionism is associated

with anxiety, fear of evaluation, emotional exhaustion, and negative academic self-perceptions (Chang et al., 2025; Noor, 2023). Rajaeinia also reported that perfectionistic tendencies are closely linked to negative affect and maladaptive psychological functioning among students (Rajaeinia, 2022). Similarly, Alipour and colleagues demonstrated that perfectionism contributes to maladaptive academic outcomes by reducing students' sense of competence and increasing psychological vulnerability (Alipour et al., 2024). Therefore, perfectionism appears to function as a maladaptive cognitive framework that undermines students' confidence in their academic capabilities.

The findings also revealed that psychosocial classroom structure had a significant direct effect on feelings of academic incompetence. This result indicates that students who perceive their classroom environment as supportive, organized, and emotionally secure are less likely to experience feelings of academic inadequacy. Positive classroom climates characterized by teacher support, peer acceptance, student autonomy, and clear rules may strengthen students' psychological security and academic confidence. In contrast, classrooms perceived as stressful, unsupportive, or highly competitive may increase students' fear of failure and negative self-evaluation. This finding is aligned with previous studies emphasizing the importance of educational environments in shaping students' emotional and motivational functioning (Fateme Saati et al., 2021; Saati Masoumi et al., 2021). Jia and colleagues similarly found that stressful educational conditions and academic anxiety contribute to maladaptive coping responses and psychological vulnerability among students (Jia et al., 2020; Jia et al., 2021). The psychosocial structure of the classroom may therefore act as an important protective factor against the development of academic incompetence by fostering emotional support, belongingness, and adaptive academic engagement.

Another important finding of the study was that academic self-handicapping did not significantly mediate the relationship between academic perfectionism and feelings of academic incompetence. Although perfectionism significantly predicted feelings of academic incompetence directly, its indirect effect through self-handicapping was not significant. One possible explanation is that perfectionistic students may experience academic incompetence primarily through internal cognitive and emotional processes rather than through overt behavioral self-handicapping strategies. Perfectionistic students often engage in persistent self-

criticism, fear of negative evaluation, and rumination even when they do not deliberately create obstacles to performance. Therefore, their feelings of inadequacy may emerge independently of self-handicapping behaviors. This finding partially contrasts with studies suggesting that perfectionism contributes to self-handicapping behaviors (Alipour et al., 2024; Schwinger et al., 2022). However, it is possible that contextual or developmental factors among upper secondary students reduce the mediating role of self-handicapping in this relationship. Adolescents may internalize perfectionistic pressures psychologically before these pressures manifest behaviorally through avoidance strategies.

The results additionally indicated that psychosocial classroom structure did not indirectly affect feelings of academic incompetence through academic self-handicapping. Although classroom structure directly predicted feelings of incompetence, its indirect relationship through self-handicapping was not significant. This finding suggests that supportive classroom environments may influence students' perceptions of competence more directly through emotional support, motivational enhancement, and interpersonal security rather than through reductions in self-handicapping behaviors. In other words, students who perceive positive classroom climates may feel more capable and valued regardless of whether they engage in self-handicapping strategies. This interpretation is consistent with studies emphasizing the direct influence of educational support on students' academic adjustment and psychological well-being (Huangfu, 2024; Jafari et al., 2024). Supportive classroom conditions may strengthen academic optimism, emotional engagement, and self-confidence without necessarily altering maladaptive defensive behaviors such as self-handicapping.

The study also demonstrated that academic self-handicapping itself did not significantly predict feelings of academic incompetence in the structural model. This finding may appear inconsistent with some prior studies indicating that self-handicapping is associated with academic maladjustment and negative self-perceptions (Endiape, 2023; Schwinger et al., 2022). However, the absence of a significant relationship in the present study may be explained by the simultaneous inclusion of stronger predictors such as perfectionism and psychosocial classroom structure in the structural model. When these variables are considered together, the direct predictive role of self-handicapping may become statistically weaker. Furthermore, some students may engage in self-

handicapping primarily as a temporary self-protective strategy rather than as an indicator of deep psychological incompetence. In such cases, self-handicapping behaviors may not necessarily correspond to persistent feelings of inadequacy.

Another important aspect of the findings concerns the role of maladaptive cognitive-emotional processes in the development of academic incompetence. Previous research has shown that negative self-evaluation, low self-esteem, fear of failure, and academic anxiety contribute substantially to self-defeating academic perceptions (Afshari, 2023; Sadeghi Goghari, 2020). The current findings further support this perspective by demonstrating that internalized cognitive characteristics such as perfectionism have stronger predictive power than behavioral defensive mechanisms such as self-handicapping. This suggests that students' beliefs about themselves and their performance may represent the core psychological mechanisms underlying academic incompetence. Feelings of incompetence are therefore likely to emerge from persistent cognitive distortions involving unrealistic standards, fear of mistakes, and negative social comparison.

The findings can also be interpreted within the broader framework of self-regulation theory. Self-regulation plays a crucial role in helping students manage emotions, organize learning behaviors, and cope effectively with academic stress. Students with stronger self-regulatory abilities are more capable of managing perfectionistic concerns and maintaining adaptive academic engagement. Previous studies have emphasized that self-regulation and academic optimism reduce self-handicapping behaviors and improve psychological functioning (Jafari et al., 2024; Khanmohammadi et al., 2024). Similarly, Habibikaleybar demonstrated that metacognitive training decreases academic self-handicapping and strengthens reflective thinking among students (Habibikaleybar, 2021). Therefore, interventions targeting self-regulation may help reduce the harmful effects of perfectionism and negative classroom experiences on students' feelings of incompetence.

The current findings are also compatible with research highlighting the emotional roots of maladaptive academic behaviors. Emotional difficulties such as alexithymia, low compassion, chronic stress, and academic anxiety have been identified as major contributors to self-handicapping and negative academic functioning (Aghazadeh, 2022; Shirani Bidabadi, 2020). Jia and colleagues further reported that academic anxiety significantly predicts self-handicapping behaviors among students experiencing educational stress

(Jia et al., 2021). In this regard, feelings of academic incompetence may reflect broader emotional vulnerabilities rather than isolated academic problems. Students who experience chronic anxiety and emotional insecurity may perceive themselves as incapable even when objective performance indicators are adequate.

The findings regarding the inadequate overall fit of the structural model should also be considered carefully. Although several path coefficients were statistically significant, the overall model fit indices did not reach acceptable thresholds. This issue may indicate that additional variables not included in the present study contribute to feelings of academic incompetence. Variables such as academic self-efficacy, parental expectations, emotional regulation, resilience, academic motivation, and socioeconomic conditions may influence the relationships examined in the model. Previous studies have highlighted the importance of self-concept, academic buoyancy, resilience, and social support in predicting students' psychological adjustment (Emami Khotbesara et al., 2024; Ghadampour et al., 2020; Losova, 2025). Therefore, future models examining academic incompetence should incorporate broader psychological and contextual variables.

## 5. Conclusion

Overall, the findings of the present study emphasize that feelings of academic incompetence among upper secondary school students are influenced by a complex interaction of cognitive and contextual factors. Academic perfectionism and psychosocial classroom structure emerged as significant predictors of academic incompetence, whereas academic self-handicapping did not demonstrate a significant mediating role. These findings underscore the importance of addressing maladaptive perfectionistic beliefs and improving classroom psychosocial conditions to reduce students' feelings of inadequacy and enhance psychological adjustment in educational settings.

One of the limitations of the present study was the use of self-report questionnaires, which may have increased the possibility of response bias and socially desirable responding. In addition, the study sample was limited to upper secondary school students in Gorgan, which may reduce the generalizability of the findings to students in other educational levels or cultural contexts. Another limitation was the cross-sectional design of the study, which prevents definitive conclusions regarding causal relationships among the variables. Furthermore, although

the proposed structural model included important psychological and contextual variables, other influential factors such as academic self-efficacy, parental pressure, emotional regulation, and socioeconomic status were not examined.

Future research is recommended to employ longitudinal and experimental designs in order to clarify the causal relationships among perfectionism, classroom climate, self-handicapping, and academic incompetence. Researchers are also encouraged to investigate additional mediating and moderating variables such as resilience, academic motivation, coping strategies, emotional intelligence, and family functioning. Conducting comparative studies across different educational levels, genders, and cultural groups may further contribute to understanding the generalizability of the present findings. Moreover, future studies may benefit from combining quantitative and qualitative methods to gain a deeper understanding of students' subjective experiences of academic incompetence.

The findings of the present study have several practical implications for educational psychologists, school counselors, teachers, and educational policymakers. School-based intervention programs should focus on reducing maladaptive perfectionistic beliefs and strengthening students' adaptive coping strategies. Teachers should also be trained to create supportive classroom environments characterized by emotional security, constructive feedback, and student autonomy. Counseling programs aimed at improving self-regulation, emotional management, and academic resilience may help students cope more effectively with academic stress and reduce feelings of inadequacy. In addition, parents and educators should avoid imposing unrealistic academic expectations and instead encourage balanced achievement goals that promote psychological well-being alongside academic success.

## Authors' Contributions

Authors equally contributed to this article.

## Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

## Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

## Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

## Declaration of Interest

The authors report no conflict of interest.

## Funding

According to the authors, this article has no financial support.

## Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

## References

- Afshari, A. (2023). Developing a causal model of self-handicapping based on negative self-evaluation, intolerance of ambiguity, and cognitive avoidance with the mediating role of academic procrastination. *Developmental Psychology: Iranian Psychologists*, 19(76), 409-422.
- Aghazadeh, F. (2022). Predicting academic self-handicapping based on emotional alexithymia in students with problematic parents. *Advances in Psychology, Educational Sciences, and Education*(49).
- Ahmadi, F., & Amoopour, M. (2023). Predicting academic self-disability based on social support and mental health in students. *Journal of Educational Psychology*, 1(14), 1-9. <http://sanad.iau.ir/fa/Article/953496>
- Alipour, F., Farid, A., & Mosleh, S. Q. (2024). The model of academic procrastination based on academic self-handicapping and perfectionism with the mediating role of students' sense of competence. *Research in cognitive and behavioral sciences*, 13(2), 1-20. [https://cbs.ui.ac.ir/article\\_27778\\_en.html?lang=fa](https://cbs.ui.ac.ir/article_27778_en.html?lang=fa)
- Azeem, K., & Zubair, A. (2021). Role of academic self-handicapping and self-regulated learning strategies in mastery goal orientation among adolescents. *Fwu Journal of Social Sciences*, 15(2), 152-172. <https://doi.org/10.51709/19951272/Summer-2/9>
- Chang, K. J., Seo, J., Kim, M.-J., Song, H.-Y., & Kim, M. S. (2025). Psychological Mechanism Contributing to Academic Burnout and Depression in College Students: Focus on Evaluation Concern Perfectionism, Academic Procrastination, Fear of Failure, and Self-Handicapping. *Korean Assoc Learner-Centered Curric Instr*, 25(2), 807-824. <https://doi.org/10.22251/jlcci.2025.25.2.807>
- Emami Khotbesara, Z., Mahdian, H., & Bakhshipour, A. (2024). Comparing the Effectiveness of Academic Buoyancy and Psychological Capital Training on Academic Procrastination in Female High School Students [Research Article]. *Iranian Journal of Educational Sociology*, 7(3), 149-160. <https://doi.org/10.61838/kman.ijes.7.3.18>
- Endiape, H. K. A. (2023). Academic Self-Academic Self-Handicapping and Self-Regulating Learning Strategies for Student Engagement in Performance of G-Handicapping and Self-Regulating Learning Strategies for Student Engagement in Performance of Grade 8 Students in Araling Panlipunan. *International Journal of Multidisciplinary Applied Business and Education Research*, 4(9), 3164-3179. <https://doi.org/10.11594/ijmaber.04.09.09>
- Fateme Saati, M., Hoshang, J., Yahya, Y., & Maryam, A. (2021). Developing a Causal Model of Academic Engagement based on Self-Regulation and Academic Emotions with the Mediating Role of Academic Self-handicapping: The Effectiveness of the Plan from the Model on Academic Burnout\*. *Journal of Applied Psychology Research*, 12(1), 369-387. <https://www.magiran.com/paper/2287191>
- Ghadampour, E., Hasanvand, F., Abdollahi Moghadam, M., & Shakarmi, A. (2020). Explaining the model of academic buoyancy based on self-handicapping mediated by love of learning, self-esteem, and self-regulation skills. *Educational Psychology*, 16(57), 71-95. <https://www.sid.ir/paper/1141510/fa>
- Habibikaleybar, R. (2021). The Effectiveness of Teaching Metacognitive Strategies on Academic Self-Disability and Reflective Thinking in High School Students. *Journal of Educational Psychology Studies*, 18(41), 150-135. <https://doi.org/10.22111/jeps.2021.6193>
- Huangfu, Q. (2024). The Relationship Between Self-Handicapping in Chemistry and Chemistry Academic Engagement: A Moderated Mediation Model Investigation. *Chemistry Education Research and Practice*, 25(3), 920-933. <https://doi.org/10.1039/d3rp00332a>
- Jafari, S. G., Sharifi, T., Chorami, M., & Ahmadi, R. (2024). The Mediating Role of Academic Optimism in the Relationship Between Academic Self-Regulation, Academic Self-Efficacy, and Academic Passion in Medical Students Exhibiting Self-Handicapping Behaviors. *Research and Development in Medical Education*, 13(1), 21-21. <https://doi.org/10.34172/rhme.33230>
- Jahan Nezhadi, Y., Taghvaei, D., & Pirani, Z. (2022). The Structural Pattern of Academic Wellbeing According to the Family Communication Patterns and Academic Self-Handicapping with the Mediating Role of Self-Efficacy in the Students. *medical journal of mashhad university of medical sciences*, 64(6), -. [https://mjms.mums.ac.ir/article\\_23805\\_6bfa0762eac0bf83dc75f76201c1e623.pdf](https://mjms.mums.ac.ir/article_23805_6bfa0762eac0bf83dc75f76201c1e623.pdf)
- Jia, J., Jiang, Q., & Lin, X. H. (2020). Academic Anxiety and Self-Handicapping among Medical Students during the COVID-19 Pandemic: A Moderated Mediation Model. *Search*, 28(1), 1-22. <https://doi.org/10.21203/rs.3.rs-77015/v1>
- Jia, J., Wang, L.-l., Xu, J.-b., Lin, X.-h., Zhang, B., & Jiang, Q. (2021). Self-Handicapping in Chinese Medical Students During the COVID-19 Pandemic: The Role of Academic Anxiety, Procrastination and Hardiness [Original Research]. *Frontiers in psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.741821>
- Khanmohammadi, R., Delavarpour, M., Rezaei, A. M., & Najafi, M. (2024). Determining the Mediating Role of Academic Self-Regulation in Predicting Academic Self-Handicapping of Lower Secondary School Students Based on Attachment to Parents, Peers, and Teachers. *Journal of Assessment and Research in Applied Counseling (JARAC)*, 6(3), 160-167. <https://elmnnet.ir/doc/2757599-5401>
- Losova, K. (2025). *Academic Self-Concept as a Mediator Between Self-Compassion and Self-Handicapping* <https://search.proquest.com/openview/27489648bf4a7c1c713fd5b27b39afef/1?pq-origsite=gscholar&cbl=18750&diss=y>

- Mansournia, S., & Karimi, K. (2020). The Relationship between Academic Achievement and Self-Handicapping due to Mediating Effect of Academic Burnout among University Students. *The Scientific Journal of Rehabilitation Medicine*, 9(3), 254-264. <https://doi.org/10.22037/jrm.2020.111571.2066>
- Noor, B. (2023). Pressure and perfectionism: a phenomenological study on parents' and teachers' perceptions of the challenges faced by gifted and talented students in self-contained classes [Brief Research Report]. *Frontiers in Education*, 8. <https://doi.org/10.3389/educ.2023.1225623>
- Rajaeinia, A. (2022). Effectiveness of Cognitive Behavior Group Therapy on decreasing perfectionism, increasing positive affect and mental performance in Female Clergies. *International Journal of Education and Cognitive Sciences*, 2(4), 45-53. <https://doi.org/10.22034/injoeas.2022.160688>
- Saati Masoumi, F., Jadidi, H., Yarahmadi, Y., & Akbari, M. (2021). Developing a causal model of academic engagement based on self-regulation and academic emotions with the mediating role of academic self-handicapping: The effectiveness of a program derived from the model on academic burnout. *Journal of Applied Psychological Research*, 12(1), 387-369. [https://japr.ut.ac.ir/article\\_81056.html?lang=en](https://japr.ut.ac.ir/article_81056.html?lang=en)
- Sadeghi Goghari, M. (2020). *Mediating role of academic self-handicapping in the relationship between academic self-efficacy and academic self-concept in sixth-grade students of Arzooieh County Payame Noor University, Taft Branch*.
- Schwinger, M., Trautner, M., Pütz, N., Fabianek, S., Lemmer, G., Lauer mann, F., & Wirthwein, L. (2022). Why Do Students Use Strategies That Hurt Their Chances of Academic Success? A Meta-Analysis of Antecedents of Academic Self-Handicapping. *Journal of Educational Psychology*, 114(3), 576-583. <https://doi.org/10.1037/edu0000706>
- Shirani Bidabadi, Z. (2020). *Predicting academic self-handicapping based on emotional alexithymia and compassion in students with parents suffering from chronic illnesses* [Kashan University].
- Zandieh, M., & Jafariharandi, R. (2020). Predication of academic procrastination upon the Big Five personality traits & self-handicapping. *Cultural Psychology*, 4(1), 116-138. <https://doi.org/10.30487/jcp.2020.240800.1139>