Int J Med Invest 2022; Volume 11; Number 3; 216-225 http://intjmi.com

Original Research

Investigating The Role Of Academic Emotions And Time Perception Perspective In Predicting Academic Adjustment With The Mediating Role Of Mind Wandering In Female High School Students

Forough Shahhoseini[1], Hasan Yaghoubi[2*]

1. MA in educational psychology, Urmia Islamic Azad University, Urmia, Iran. 0000-0002-3273-4047
2. Associate professor, Shahid Madani University, Tabriz, Iran. 0000-0003-3798-0930

***Corresponding Author:** Hasan Yaghoubi. Associate professor, Shahid Madani University, Tabriz, Iran. Ha.yaghoubi@gmail.com, 0000-0003-3798-0930

Abstract:

The aim of this study was to investigate the role of academic emotions and time perception perspective in predicting academic adjustment with the mediating role of Mind Wandering in female high school students. It is a descriptive-correlational study and structural equations. The statistical population of this study includes all female students of the first year of high school in the city of Urmia in the first semester of the academic year 2020-2021, which according to the statistics obtained is 21 thousand people. A total of 384 students were selected by available sampling method and distributed online through academic selection and adaptation of Baker et al., Pekran et al., Zimbardo et al. (1999) and the Carrier et al.d. Data were statistically analyzed by Pearson correlation coefficient and multiple regression, path analysis test and SPSS 19 and Emos 22. The results showed that there was a positive relationship between positive academic emotions (P<0.01), time perception perspective (P<0.01) with academic adjustment and between mental confusion (P<0.01) and negative academic emotions (P<0.01) There was a negative relationship with academic adjustment. The results also showed that mental confusion has a mediating role in the relationship between academic emotions and the perception of time perception with the academic adjustment of female high school students. Accordingly, the results indicate that mental confusion as an important variable in the impact of academic emotions and time perception perspective on the academic performance of female students can play an essential role.

Keywords: Academic Emotions, Time Perception Perspective, Academic Adjustment, Mind Wandering

Submitted: 09 September 2022, Revised: 18 October 2022 , Accepted: 22 November 2022

[Downloaded from intjmi.com on 2026-11-16]

Introduction

One of the most important dimensions of adjustment that can play a role in growth and development and predicting the future is academic adjustment (Reed-Victor, 2018).

Al-Masdin, Omar-Fawzi and Kaur (2017) have defined academic adjustment as having a positive attitude towards setting academic goals, completing academic requirements, making an effective effort to achieve academic goals, and achieving academic success.

Today, academic adjustment not only emphasizes academic achievement, but its concept has expanded to include learning motivation, the ability to plan for academic activities, a sense of commitment, perseverance in teaching and learning, satisfaction with the learning environment and environment. Be (Rivas Dark, 2011).

Academic excitement is a strong factor for classroom enjoyment and has a strong positive effect on well-being and is one of the most important predictors (Kavousian, Kadivar and Farzad, 2012).

Students spend about one-third of their day at school; therefore, knowing the time and situation of time can also affect their mental, emotional and educational status. From a temporal point of view, the perception of time can affect many psychological and emotional events in humans.

Perception of time is an important function that facilitates the ability to predict, foresight, and response efficiency to occurring events (Yang, Chan, Zhu, Jing, Mai et al., 2007).

Freeze (1978) defines the perception of time as the amount of time spent stimulating perception at a given time without repetitive intervention during or after stimulus presentation (quoted in Grundin, 2010). .

In different studies, the results showed the effects of time perception perspective on students' adjustment and educational status. Ghadampour, Barzegar Befrooi and Heidariani (1398) showed in a study that the perception of time perception can affect the educational status of students and create the ground for academic burnout.

Also, Omidian Mehrabi and Haji Yakhchali (2019) in another study showed that mindfulness and purposeful future perspective play a role in predicting external and internal academic motivation.

Mental components are also determinants of our behavior, emotions, and mental state. Sometimes we cannot fully maintain our mental focus and we may become mentally confused.

Mental confusion refers to a shift in attention from task-related stimulus and subjective representations to non-task-related thoughts (Kahn, Brown, McVeigh, Silva, Main-Garmis et al., 2007).

Due to the importance of academic adjustment in success and high academic performance, the need for purposeful and systematic research in this field is felt. According to the studies, researches that have specifically examined the role of academic emotions and the perception of time perception in predicting academic adjustment with the mediating role of mental confusion in female high school students in the country were found. And this is an important research vacuum in terms of studies that create the importance and necessity of the present research; Therefore, with the present study, this gap will be filled and the results can be in the field of being aware of the academic adjustment status of female students and a comparative view with female students at the same level, as well as having a correct and logical understanding of the amount and The effect and relationship of academic emotions, perspective of time perception and mental confusion will be used directly and indirectly in academic adjustment. Also, the institutions and institutions in charge of the educational and health system of the country such as the Ministry of Education, the Ministry of Health, professors, psychologists and school counselors and researchers in the field of educational psychology studies can benefit

[Downloaded from intjmi.com on 2026-11-16]

from the results of the present study. Therefore, by increasing students' academic adjustment, students are expected to improve their academic performance; therefore, it is necessary to examine the factors related to and effective with this component. In the present study, the issue of whether academic emotions and time perception perspective in predicting academic adjustment with the mediating role of mental confusion in female students in the first year will be examined. High school involved?

Method

This study examines the relationship between cognitive flexibility and cognitive fusion with academic procrastination with the mediating role of perception of the school atmosphere in female high school students, in terms of quantitative measurement, in terms of purpose. It is fundamental and in terms of data collection method is descriptive-correlation and structural equations. The statistical population of the study includes all female students of the first year of high school in Urmia in the first semester of the academic year 1399-400, which is 21 thousand people. In order to be able to accurately estimate the research sample in terms of volume, by referring to Krejcie-Morgan table and using multi-stage cluster sampling method, 384 female junior high school students as a statistical sample of the research. Selected. Also, due to the prevalence of Quid 19 virus, if the disease is prevalent at the time of research and distribution of questionnaires, the questionnaires were linked and provided to the samples virtually. Descriptive statistics methods (mean, standard deviation, frequency and percentage) were used to analyze the information at the descriptive level, and inferential statistics (Pearson correlation coefficient and multiple regression, path analysis test) were used to test the research hypotheses. The collected data were also statistically analyzed using SPSS 19 and Emos 22 software.

Results

In this section, we provide descriptive statistics including average, standard deviation, minimum and maximum, number and percentage.

The mean age of students was 14.64 and standard deviation was 2.14.

The results of Table 1 showed that 24.7 are seventh grade students, 39.3 are eighth grade students, and 35.9 are ninth grade students.

The table above shows the skewness and elongation indices of the observed variables in the structural model of the research.

As can be seen, according to the table above, since the skewness and elongation for all variables are in the range (2, -2), we conclude that the distribution is normal.

First, Pearson correlation coefficient was used to investigate the relationship between variables.

Table 3 Pearson correlation coefficient test examines the relationship between academic emotions, time perception perspective and mental confusion with the academic adjustment of female high school students. As can be seen in the table above, the results show that there is a significant positive relationship between academic emotions and academic adjustment ($r=0.29$, $P<0.01$); Significant negative relationship between negative academic emotions and academic adjustment ($r=-0.18$, $P<0.01$); There was a significant positive relationship; Between the perspective of time perception and academic adjustment ($r= 0.22$, $P<0.01$); There was a significant negative relationship; Between mental confusion and academic adjustment ($r=-0.28$, $P<0.01$); There was a significant negative relationship

In the next step, the conceptual model of the research was tested:

In this study, to test the fit of the tested model, the goodness-fit index (GOF), the normative goodness-fit index (NFI) and the root mean square (RMR) were considered as the model fit

[Downloaded from intjmi.com on 2026-11-16]

indices. In Table4, these indicators are reported separately.

The results of the table above show the goodness-of-fit indicators of the tested research model. The GOF index is one of the adaptive indices that a value greater than 0.50 for this value indicates a good fit of the model by the data. The GOF value for the model was 0.53, which indicates a good fit of the model.

The residual matrix is one of the ordinary matrices that can be used for both general fit evaluation (developed model) and partial fit (defined parameters between two variables). The second root of the mean squared residual or RMR for this model is 0.08, which is a good value for the model.

One of the comparative indicators is the NFI standardized fit index, which values between 0.50 and 0.60 as acceptable and values above 0.60 for this index are interpreted as a very good fit of the data to the model. The NFI value for this model is 0.73. Which is a good value for the model.

Here we discuss the role of academic emotion indicators in predicting academic adjustment of female high school students through the mediation of mental confusion.

According to the results of Table 4-9, the effect of positive academic emotions on mental confusion has a direct negative effect and negative academic emotions have a direct positive effect on mental confusion. Also, mental confusion has a direct negative effect on academic adjustment, because the critical value of the test is more than 1.96 and also the significance level of the test is less than 0.05.

According to the results of Table 5, because the critical value of the test is more than 1.96 and also the significance level of the test is less than 0.05 and the indirect effect of academic emotions on academic adjustment is significant, it can be concluded that mental confusion in The relationship between academic emotions and academic adjustment of female high school students has a mediating role.

According to the results of Table 6, the effect of time perception perspective on mental confusion has a direct negative direct positive effect and also mental confusion has a direct negative effect on academic adjustment. Because the critical value of the test is more than 1.96 and also the significance level of the test is less than 0.05.

According to the results of Table 7, because the critical value of the test is more than 1.96 and also the significance level of the test is less than 0.05 and the indirect effect of time perception perspective on academic adjustment is significant, it can be concluded that confusion Mentally, they play a mediating role in the relationship between time perception perspective and academic adjustment of female high school students.

Conclusion

After the family, the school is the first institution that is responsible for educating children. In fact, children start walking at the age of six or seven and start their first interactions from this time.

This educational environment plays an effective role in the process of socialization, education of its students, and the more active and motivated they are in this environment, the more useful results they will achieve (Makian and Sheriff Koosheh, 1394); Therefore, school is an important place that plays a major role in students' mental, emotional and behavioral health (Ogundel, 2018). Studies by Hemmati (1399), Arabzadeh (1398), Eini et al. (1397), Salsabella et al. (2020), Salsabia et al. (2019), and Carmona-Halti et al. (2019) were consistent.

Inconsistent finding not found.

Related Studies, Hemmati (2016) in a study showed that there is a significant positive relationship between positive academic excitement, support for perceived autonomy and the feeling of belonging to school with social academic adjustment and a significant negative relationship between negative

[Downloaded from intjmi.com on 2026-11-16]

academic emotion and social-academic adjustment.

The results of regression analysis showed that academic emotions, perceptions of supporting autonomy and sense of belonging have the ability to predict students' academic and social adjustment.

Arabzadeh (1398) in a study showed that the relationship between academic adjustment with self-interpretation and academic emotions is positive and significant and with independent self-interpretation and academic emotions is negative and significant.

The results of regression analysis also indicated that positive academic emotions can positively and significantly predict students' academic adjustment.

Eini et al. (2015) in a study showed that emotional creativity and secure attachment were positive and significant predictors of academic adjustment score.

But other attachment styles were not significantly associated with academic adjustment.

Salsabella et al. (2020) also showed that cognitive reassessment and emotion regulation on a positive scale had a positive relationship with academic adjustment.

Carmona Holti et al. (2019) showed that psychological capital and academic interaction mediate the relationship between positive emotions and academic performance.

In this regard, and considering the relationship between the emotional components and mental confusion, it can be said that mental confusion can play a mediating role between positive and negative emotions with academic adjustment; In this way, under the influence of positive emotions, it can provide the ground for the flourishing of positive factors such as more creativity in students and through this, provide better and more academic adjustment for female students. On the other hand, mental confusion can lead to students moving away from the mindfulness and mental path of dysfunctional and spontaneous thoughts through exposure to negative emotions, which is a factor for academic problems and academic incompatibility.

Considering that the critical value of the test is more than 1.96 and also the significance level of the test is less than 0.05 and the indirect effect of academic emotions and time perception perspective on academic adjustment is significant, it can be concluded that mental confusion in relation Between academic emotions and academic adjustment, female students in the first year of high school have a mediating role

In order to expand the studies, Aghdampour et al. (2017) in a study showed that the negative dimension of the past and the present and, to some extent, mediated by referential thinking, have a significant indirect effect on academic burnout. Also, the positive past, hedonistic and future dimensions have a significant indirect negative effect on academic burnout through the mediation of referral thinking. Omidian Mehrabi et al. (2017) in another study showed that mindfulness and purposeful future perspective play a role in predicting external and internal motivation and the deterministic state was only inversely related to external motivation. Afshari et al. (2017) in another study showed the perspective of future time and academic achievement: the mediating role of long-term self-regulation and perception of usefulness of homework was significant and the perspective of future time directly and through self-regulation and usefulness Perceived affects academic achievement. Golestaneh et al. (2016) in another study showed that the direct relationship between time perspective and goal orientation was significant; and the relationship between time perspective and academic procrastination was significant. Also, the indirect relationship between time perspective through goal orientation and academic achievement was significant. In addition, the indirect relationship between time perspective through

[Downloaded from intjmi.com on 2026-11-16]

academic procrastination and academic achievement was significant.

In the explanation, it can be said that the perspective of time perception in students can be of significant importance for the individual and thus has a significant impact on current life. The perception of time perception in one of the specific time frames, or not paying attention to a time frame, makes the student's performance adapt to that time frame and this factor creates interest and the student becomes more interested in the school environment. Time perspective shapes our goals, and these goals, in turn, determine our behavior and play an important role in shaping our current behavior. In the meantime, however, mental and cognitive components and factors can mediate the effect and role that time perception perspective has on students' academic adjustment and strengthen or modify this effect. In fact, students show less effectiveness in external processing during mental confusion (16) and usually do not do their homework as well as they can; Because as a result of mental confusion, they have lost the power of human concentration to environmental tasks .); This factor can moderate and negatively affect the perception of time perspective .

References

1. Kavousian, Javad; Kadivar, Parvin; Farzad, Wali Allah. (2012). Relationship between environmental and academic variables and school well-being: The role of psychological needs, motivational self-regulation and academic emotions. Quarterly Journal of Research in Mental Health. 6 (1), 10-25.
2. Makian, Razia Sadat; Kusheh Sheriff, Seyed Mohammad. (2014). Standardization of the school-based sense of belonging questionnaire and its relationship with academic burnout and achievement motivation among students in Tehran. Quarterly Journal of Educational Measurement. 5 (20), 119-138.
3. Grondin, S. (2010). Timing and time perception: A review of recent behavioral and neuroscience findings and theoretical directions. Attention, Perception, & Psychophysics. 72 (3): 561-82
4. Kane, M. J., Brown, L. H., McVay, J. C., Silvia, P. J., Myin-Germeys, I., & Kwapil, T. R. (2007). For whom the mind wanders, and when: An experience-sampling study of working memory and executive control in daily life. Psychological Science, 18, 614–621.
5. Reed - Victor, E. (2018). Individual differences and early school adjustment: Teacher appraisals of young children with special needs. Early Children Development Care, 184 (1): 59-79.
6. Rivas-Drake D. Public ethnic regard and academic adjustment among Latino adolescents. Journal of Research on Adolescence. 21 (3): 537-44.
7. Yang, B, Chan, RC., Zou, X., Jing, J., Mai, J., Li, J. (2007) .Time Perception Deficit In Children With Adhd. Brain Research. 19 (1170), 90-96.

Tables & Figure

Table 1: Frequency distribution of respondents based on educational background

Educational level	Frequency	percentage
Seventh	95	7/24

[Downloaded from intjmi.com on 2026-11-16]

Eighth	151	3/39
ninth	138	9/35
Total	384	100

Table 2: Test the normality of variables

Variable	Kurtosis	Skewness
Positive academic emotions	48/1	70/0-
Negative academic emotions	35/0	06/1-
Vision of time perception	98/1	33/1-
Mental confusion	47/1	21/1-
Academic compatibility	23/1	57/1-

Table 3: Pearson correlation coefficient test to investigate the relationship between academic emotions, time perception perspective and mental confusion with academic adjustment of female high school students

Variable	Sig	Correlation coefficient
Positive academic emotions	001/0	**29/0
Negative academic emotions	001/0	**18/0-
Vision of time perception	001/0	**22/0
Mental confusion	001/0	**28/0-

[Downloaded from intjmi.com on 2026-11-16]

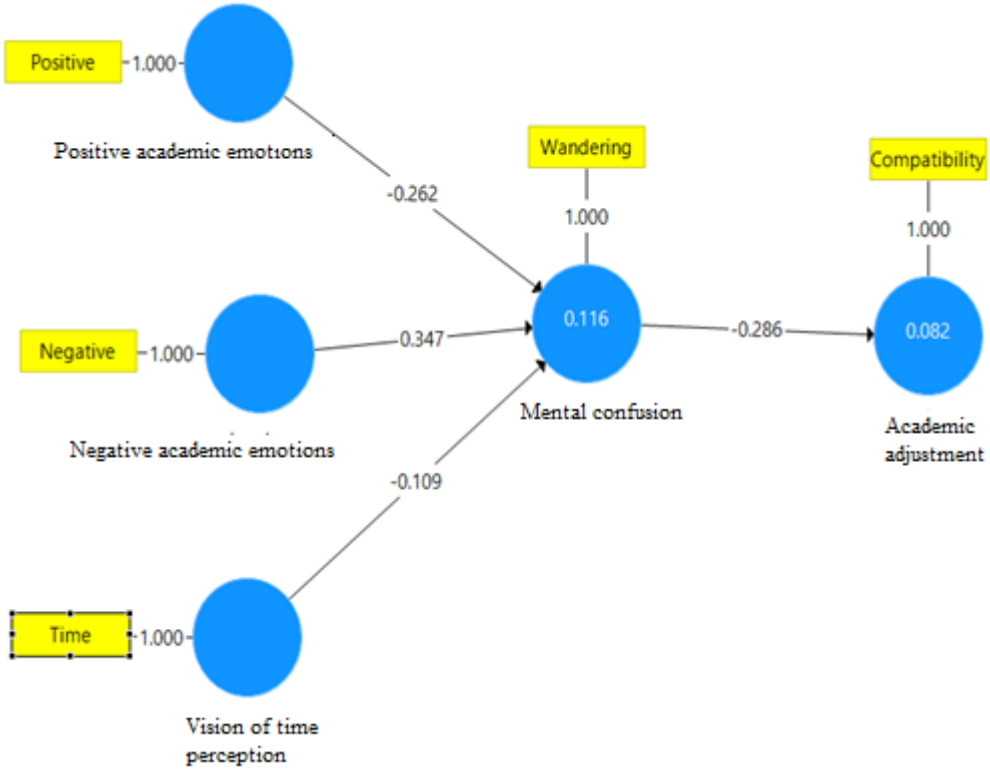

Figure 1: Path coefficients of the tested model

Table 4: Goodness indicators of fitting the tested model of the research

The amount obtained	The ideal amount	Acceptable amount	Index name
82/88	$0 \leq \chi^2 \leq 2df$	$2df \leq \chi^2 \leq 3df$	Chi-square χ^2
001/0	$.01 < p \leq .05$	$.05 < p \leq 1$	Significance χ^2
53/0	$.95 \leq GFI \leq 1$	$.50 \leq GFI < .95$	Goodness of Fit (GOF)
08/0	$0 \leq RMR \leq .05$	$0 < RMR \leq .10$	Root of Mean Square Remnant (RMR)
0/60	$.60 \leq PGFI \leq 1.00$	$.50 \leq PGFI < .60$	Periodic Fit Goodness Index (PGFI)
59/0	$.60 \leq PNFI \leq 1.00$	$.50 \leq PNFI < .60$	Normalized Fit Index (NFI)

[Downloaded from intjmi.com on 2026-11-16]

Table 5: The direct effect of academic emotions on academic adjustment

Result	significance	t	standard error	Trajectory	Route
Confirm	001/0	08/4	06/0	26/0-	Positive academic emotions → mental confusion
Confirm	001/0	35/4	08/0	35/0	Negative academic emotions→ mental confusion
Confirm	001/0	15/5	06/0	29/0-	mental confusion→ Academic adjustment

Table 6: Indirect effect of academic emotions on academic adjustment mediated by mental confusion

Result	significance	t	standard error	Trajectory	Route
Confirm	01/0	81/2	03/0	07/0	Positive academic emotions→ Mental confusion→ Academic adjustment
Confirm	001/0	58/2	03/0	10/0-	Negative academic emotions→ Mental confusion→ Academic adjustment

Table 6: The direct effect of academic emotions and time perception perspective on academic adjustmen

Result	significance	t	standard error	Trajectory	Route
Confirm	03/0	20/2	05/0	11/0-	The Perspective of Time Perception→ Mental confusion
Confirm	001/0	15/5	06/0	29/0-	Mental confusion→ Academic adjustment

[Downloaded from intjmi.com on 2026-11-16]

Table 7: Indirect Effect of Academic Emotions and Perceptions of Time Perception on Academic Adjustment Mediated by Mental Confusion

Result	significance	t	standard error	Trajectory	Route
Confirm	03/0	16/2	01/0	03/0	Perspectives on time perception → mental confusion → academic adjustment

[Downloaded from intjmi.com on 2026-11-16]