



## Testing the conceptual model of the mediating role of self regulated learning and achievement goals in the relationship between epistemological beliefs and academic burnout

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### Abstract

The present research was conducted with the aim of investigating the mediator role of self-regulated learning and progress goals in the relationship between epistemological beliefs and academic burnout on a sample of 384 students above the 4th semester of Payam Noor University in Shiraz. The sample members were selected using the random cluster sampling method and after collecting the data, the evaluation of the proposed model was carried out using the path analysis method and using the AMOS program, and the findings from the analysis of the structural equation modeling were a good fit of the initial theoretical model. confirmed with the data, and after modifying the conceptual model, a very good fit of the final model with the data was obtained. The results of the present research showed that students' epistemological beliefs play a decisive role in the formation of their attitudes towards the philosophy of education and education, and these attitudes and beliefs, through self-regulation learning, lead to students' motivational orientation through the selection of goals. Progress is made. An orientation that can bring progress and success on the one hand, or stress and academic exhaustion on the other hand, for students in the long term. As a result, the student's awareness of his cognitive processes plays a decisive role both in choosing progress goals and in choosing the correct learning path (cognitive self-regulation).

**Keywords:** self-regulated learning, achievement goals, epistemological beliefs, academic burnout.

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## References

- Akyol, G., Sungur, S., & Tekkaya, C., (2010). The contribution of cognitive and metacognitive strategy use to students' science achievement. *Educational Research and Evaluation*, 16, 1–21.
- Azevedo, R., Feyzi-Behnagh, R., Duffy, M., Harley, J., & Trevors, G. (2012). Metacognition and self-regulated learning in student-centered learning environments. In D. Jonassen, & S. Land (Eds.), *Theoretical foundations of learning environments*. NY: Routledge.
- Bandura, A. (2002). *Self-efficacy: The exercise of control*. New York: Freeman
- Bromme, R., Pieschl, S., & Stahl, E. (2010). Epistemological beliefs are standards for adaptive learning: a functional theory about epistemological beliefs and Metacognition and Learning, 5, 7e26.
- Burkett, C., & Azevedo, R. (2012). The effect of multimedia discrepancies on metacognitive judgments. *Computers and Human Behavior*, 28, 1276e1285
- Credé, M., & Phillips, L. A. (2011). A meta-analytic review of the Motivated Strategies for Learning Questionnaire. *Learning and Individual Differences*, 21, 337–346. <http://dx.doi.org/10.1016/j.lindif.2011.03.002>.
- Kljajic, K., Gaudreau, P., Franche, V. (2017). An investigation of the 2 × 2 model of perfectionism with burnout, engagement, self-regulation, and academic achievement, *Learning and Individual Differences* 57 (2017) 103–113.
- Cury, F., Elliot, A. J., Moller, A. C. (2003). The Social–Cognitive Model of Achievement Motivation and the 2 × 2 achievement Goal Framework. *Journal of Personality and Social Psychology*, Vol. 90, No. 4, 666–679
- Dahl, T. I., Bals, M., & Turi, A.-L. (2005). Are students' beliefs about knowledge and learning associated with their reported use of learning strategies? *British Journal of Educational Psychology*, 75, 257–273.
- Diehl, M., Semegon, A. B., & Schwarzer, R. (2006). Assessing attention control in goal pursuit: A component of dispositional self-regulation. *Journal of Personality Assessment*, 86, 306–317. [http://dx.doi.org/10.1207/s15327752jpa8603\\_06](http://dx.doi.org/10.1207/s15327752jpa8603_06)
- Diseth, Å. & Kobbeltvedt, T. (2010). A mediation analysis of achievement motives, goals, learning strategies, and academic achievement. *British Journal of Educational Psychology*, 80, 671–687. <http://dx.doi.org/10.1348/000709910X492432>.
- Elliot, A. J., & Murayama, K. (2008). On the measurement of achievement goals: Critique, illustration, and application. *Journal of Educational Psychology*, 100, 613–628. <http://dx.doi.org/10.1037/0022-0663.100.3.613>
- Elliot, R. (2005). A ten-year study of procrastination stability. Unpublished Masters, University of Louisiana, Monroe.
- Gailliot, M. T., Baumeister, R. F., DeWall, C. N., Maner, J. K., Plant, E. A., Tice, D. M., ... Schmeichel, B. J. (2007). Self-control relies on glucose as a limited energy source: Willpower is more than a metaphor. *Journal of Personality and Social Psychology*, 92, 325–336. <http://dx.doi.org/10.1037/0022-3514.92.2.325>.



- Greene, J. A., & Azevedo, R. (2009). A macro-level analysis of SRL processes and their relations to the acquisition of sophisticated mental models. *Contemporary Educational Psychology*, 34, 18e29.
- Harackiewicz, J. M., Barron, K. E., Pintrich, P. R., Elliot, A. J., & Thrash, T. M. (2008). Revision of achievement goal theory: Necessary and illuminating. *Journal of Educational Psychology*, 94, 638–645.
- Huijun, L., Dejun, G., Hungli, D., Peixia, G. (2006). Relationship among achievement goal orientation, test anxiety and working memory (article written in Chinese). *Acta Psychological Sinica*, 32 (2), 254-261.
- Hulleman, C. S., Schrager, S. M., Bodmann, S. M., & Harackiewicz, J. M. (2010). A meta-analytic review of achievement goal measures: Different labels for the same constructs or different constructs with similar labels? *Psychological Bulletin*, 136, 422–449. <http://dx.doi.org/10.1037/a0018947>.
- Hossein Abadi Farahani, Mohammad Javad, Kathirlou, Leila, Inanlou, Farhad, (2016), the relationship between motivation to progress and academic burnout, a descriptive study - correlation, *Journal of Nursing Education*, 6th year, number 5. [In Persian]
- Hakami, Sara, Shokri, Omid, (2016), the relationship between the goal orientations of progress and academic well-being: a model of the mediating effects of progress emotions, *Educational Measurement and Evaluation Quarterly*, Year 5, Number 11. [In Persian]
- Homan, Heydar Ali, (1384). Modeling structural equations using Lisrel software, Samit Publications. [In Persian]
- Jamali, Marzieh and Kiamanesh, Alireza and Bagheri, Fariborz, (2016), structural model of progress goals, academic burnout and academic performance: Investigating the mediating role of self-regulated learning, *Knowledge and Research Quarterly in Applied Psychology*, Year 18, Number 68. [In Persian]
- Jamali, Marzieh and Kiamanesh, Alireza, (2015), The role of academic progress goals and burnout in academic performance: through the mediation of outcome expectation and self-disciplined learning, *Developmental Psychology Quarterly: Iranian Psychologists*, Year 13, Number 52. [In Persian]
- Kata, A. (2012). Anti-vaccine activists, Web 2.0, and the postmodern paradigm: an overview of tactics and tropes used online by the anti-vaccination movement. *Vaccine*, 30, 3778e3789. <http://dx.doi.org/10.1016/j.vaccine.2011.11.112>.
- Kendeou, P., Walsh, E., Smith, E. R., & O'Brien, E. J. (2014). Knowledge revision processes in refutation texts. *Discourse Processes*, 51, 374e397. <http://dx.doi.org/10.1080/0163853X.2014.913961>
- Kizilgunes, B., Tekkaya, C. & Sungur, S. (2009). Modeling the relations among students' epistemological beliefs, motivation, learning approach, and achievement. *The Journal of Educational Research*, 102(4), 243–256.
- Koksal, M. S. (2011). Epistemological predictors of self-efficacy on learning biology and test anxiety related to evaluation of learning on biology for pre-service elementary teachers. *Journal of Science Teacher Education*, 22, 661–677.

- Karsheki, Hossein, (2014). Investigating the role of family and school perceptions and motivational patterns in students' self-regulated learning, PhD thesis, University of Tehran. [In Persian]
- Kajbaf, Mohammad Baqer, Moulawi, Hossein, Shirazi Tehrani, Alireza, (2012). The relationship between motivational beliefs and self-regulated learning strategies with the academic performance of high school students. *Cognitive Science News*. Year 5. Number 1. [In Persian]
- Kadivar, Parvin, Farzad, Vali A..., Kausian, Javad, Nikdel, Fariborz, (2016). Validation of Pakran's academic emotions questionnaire. *Quarterly Journal of Educational Innovations*, No. 32, Year 8. [In Persian]
- Lewandowsky, S., Ecker, U. K. H., Seifert, C., Schwarz, N., & Cook, J. (2012). Misinformation and its correction: continued influence and successful debiasing. *Psychological Science in the Public Interest*, 13, 106e131. <http://dx.doi.org/10.1177/1529100612451018>.
- Liem, A., Lau, S., & Nie, Y. (2008). The Role of Self- efficacy, Task Value and Achievement Goal in Predicting Learning Strategies, Task Engagement, Peer Relationship and Achievement Outcome. *Contemporary Educational Psychology*, 33, Pp. 486-512.
- Linnenbrink-Garcia, L., Tyson, D. F. & Patall, E. A. (2008). When are achievement goal orientations beneficial for academic achievement? A closer look at main effects and moderating factors. *Revue Internationale de Psychologie Sociale*, 21(1-2), 19–70
- Lavasani, Gholam Ali, Hejazi, Elaha, Rostgar, Ahmed, and Gurban Jahrami, Reza (2008). Intelligence beliefs and academic progress: the role of academic achievement goals. *Psychological Research*, Volume 12, No. 2, 1, pp. 11-25. [In Persian]
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422.
- Mothsharai, Mohammad Hossein (2012). Examining the indirect effect of work-family conflict on life satisfaction, scientific-research journal of clinical psychology and personality, Tehran Shahid University, 20th year, number 8: 75-86. [In Persian]
- Narimani, Mohammad, Rostam Oghli, Zahra, Musizadeh, Tawakel, (2014). The role of procrastination, self-regulation and metacognitive beliefs in predicting academic burnout of female secondary school students, *Educational Systems Research Quarterly*, Year 10, Number 33. [In Persian]
- Nikdel, Fariborz (1385). Investigating the relationship between perception of the classroom environment and motivational beliefs (goal orientation and academic self-concept) with academic emotions and self-directed learning, the mediating role of academic emotions. Doctoral thesis in educational psychology, Tarbiat Moalem University, Tehran. [In Persian]
- Paris, H. (2003). Alonso-Tapia, E. *Panadero Effect of self-assessment scripts on self-regulation and learning* *Infancia y Aprendizaje*, 33 (3) (2010), pp. 385–397.
- Paulsen, M. B., & Feldman, K. A. (2005). The conditional and interaction effects of epistemological beliefs on the self-regulated learning of college students: Motivational strategies. *Research in Higher Education*, 46, 731–768. Putwain, D. W., and R. A.

- Daniels (2010), Is the relationship between competence beliefs and test anxiety influenced by goal orientation? *Learning and Individual Differences*, 20(1), 8-13.
- Pintrich, P. (2002). A motivational science perspective on the role of student motivation in learning and teaching contexts, *Journal of Educational Psychology*, 95: 667-686..
- Rastegar, A., Ghorban-jahromi, R., Salim H, A., Akbari, A, R. (2010). The relation of epistemological beliefs and mathematics achievement: the mediating role of achievement goals, mathematics self- efficacy, and cognitive engagement. *Procedia Social and Behavioral Sciences*, 5 791-797.
- Richardson, T. E., Long, G. L. & Woodly, A. (2012). Academic engagement and perception of quality in distance education. *Open learning*, 18, 166-170.
- Rostgar, Ahmad, Gurban Jahormi, Reza, Saeed, Mazlounian, (2013). Relationship model of intelligence beliefs, progress goals and cognitive involvement. Tehran, *Psychology Quarterly*, under print. [In Persian]
- Rostami, Zainab; Abedi, Mohammadreza; Washofli, Wilmarby (2018). Normization of Maslesh academic burnout scale in female students of Isfahan University. *New Educational Approach*, 13(1), 21-38. [In Persian]
- Salmela-Aro, K. & Parker, P. D. (2011). Developmental processes in school burnout: A comparison of major developmental models. *Learning and Individual Differences*, 21, 244-248
- Salmela-Aro, K., & Naatanen, P.(2005). BBI-10. Koulu-uupumusm ittari. School burnout inventory. Helsinki: Edita.
- Salmela-Aro, K.; H. Savolainen & L. Holopainen. (2005). Depressive Symptoms and School Burnout during Adolescence. *Journal of Youth and Adolescence*. 6. 34-45.
- Schommer-Aikins, M. (2002). An evolving theoretical framework for an epistemological belief system. In Hofer, B. K. & Pintrich, P. R. (Eds.), *Personal epistemology: The psychology of beliefs about knowledge and knowing* (pp. 103–118). Mahwah, NJ: Erlbaum.
- Stana, A. Opreab, C (2015). Test anxiety and achievement goal orientations of students at a Romanian university. *Procedia - Social and Behavioral Sciences* 180 (2015) 1673 – 1679.
- Sahaki, Hakim, Meridi, Jale, (2016). The relationship between social support and self-regulated learning with academic burnout in students of Jundishapur, Ahvaz, development strategies in medical education, second year, number 2 (series 4). [In Persian]
- Saif, Ali Akbar (1997). *Educational psychology, psychology of learning and education*. Aware Publications. [In Persian]
- Saif, Mohammad Hassan, Rastegar, Ahmad, Ershadi, Rahleh, Mazlounian, Saeed, (2014), Ali's model of the relationship between goal orientation and academic burnout: the mediating role of self-efficacy and academic procrastination, *Development Steps in Medical Education Journal*, 13th year , number 4 (36 consecutive). [In Persian]

- Tanaka, A., Takehara, T., & Yamauchi, H. (2006). Achievement goals in a presentation task: Performance expectancy, achievement goals, state anxiety, and task performance. *Learning and Individual Differences*, 16, 93-99.
- Tanaka, A., Takehara, T., & Yamauchi, H. (2006). Achievement goals in a presentation task: Performance expectancy, achievement goals, state anxiety, and task performance. *Learning and Individual Differences*, 16, 93-99.
- Tikkanen, L., Pyhäälto, K., Pietarinen, J., Soini, T. (2017). Interrelations between principals' risk of burnout profiles and proactive self-regulation strategies. *Soc Psychol Educ* DOI 10.1007/s11218-017-9379-9
- Vansteenkiste, M., Lens, W., & Vanden Auweele, Y. (2010). Beyond positive and negative affect: Achievement goals and discrete emotions in the elementary physical education classroom. *Psychology of Sport and Exercise*, 10, 336-343.
- Yang, F.-Y., & Tsai, C.-C. (2007). Personal epistemology and science learning: A review on empirical studies. In K. Tobin, B. Frasier, & C. McRobbie (Eds.), *Second international handbook of science education* (pp. 259-280). New York, NY: Springer
- Zakiri, Hamidreza, (1388). Prediction of self-handicapping based on parenting styles and personality traits with the mediation of goal orientation. Master's thesis. Shiraz University. Faculty of Educational Sciences and Psychology. [In Persian]
- Zare, Hossein, Rastgar, Ahmed, (2013). The relationship between epistemological beliefs and cognitive processes: Investigating the mediating role of achievement goals. *Psychology Quarterly*, under print. [In Persian]